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PS-01-001

IS ANGER INTENSITY RELATED TO SERUM TESTOSTERONE LEVELS AND/OR EXOGENOUS TESTOSTERONE THERAPY? RESULTS FROM ENIGI, A LARGE MULTICENTER PROSPECTIVE COHORT STUDY IN TRANSGENDER PEOPLE

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Objective: Anger is a state of emotions ranging from irritation to intense rage. Aggression is the externalization of anger through destructive/punitive behavior. The World Professional Association for Transgender Health (WPATH) Standards of Care, Edition 7 (SOC7) guidelines warn about aggression in transgender men (TM) on testosterone treatment. As aggression is often initiated by feelings of anger, we aimed to assess whether anger intensity increases in TM and decreases in transgender women (TW) after initiation of hormone therapy, and to identify predictors for anger intensity in transgender people.

Methods: This prospective cohort study was part of the European Network for the Investigation of Gender Incongruence (ENIGI). Upon first clinical contact, psychological questionnaires were administered. Anger intensity was prospectively assessed in 898 participants (440 TM, 468 TW) by the STAXI-2 (State-Trait Anger Expression Inventory-2) State Anger (S-Anger) during a three-year follow-up period, starting at the initiation of hormone treatment. Sex steroids were measured at each follow-up visit. Data were analyzed cross-sectional and prospectively.

Results: STAXI-2 S-Anger scores did not change in TM or TW. Cross-sectionally, at three, twelve and thirty-six months of hormone therapy, anger intensity was not correlated to serum testosterone levels, although anger intensity was correlated with various psychological measures (quality of life, somatization, paranoid ideation/psychoticism, sleeping problems, hostility, depression, anxiety, interpersonal sensitivity) after three and twelve months. TM still experiencing menstrual spotting at three months had higher STAXI-2 S-Anger scores compared to those without. Prospectively, changes in STAXI-2 S-Anger scores were not correlated to changes in serum testosterone levels after three, twelve and thirty-six months in TM or TW. **Conclusion:** Anger intensity is associated with psychological/psychiatric vulnerability, and not with (anti-) testosterone therapy or serum testosterone levels. TM and TW with psychological and/or psychiatric vulnerability were more likely to experience higher anger intensity, but they did not experience an increase in anger intensity during treatment.

Policy of full disclosure: None

PS-01-002

THE ASSOCIATION BETWEEN INTERNALISED HOMOPHOBIA AND INTERNALIZATION OF TRADITIONAL GENDER ROLES

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Objective: For men, heteronormative societies often use heterosexual-homosexual dichotomy as a central symbol of masculinity. Similarly, lesbians are commonly stereotyped as 'masculine'. The aim of the present study was to investigate if internalised homophobia is positively related to one's the endorsement of traditional gender roles and to compare whether the hypothesised relation differs between gays and lesbians.

Methods: 153 homosexually oriented individuals, 93 gays and 60 lesbians, with a mean age of 27 (SD = 8) participated in an online survey

encompassing Internalised Homophobia Scale (with the Internal and External Perception of the Stigma Associated with Homosexuality subscales), Gender Roles Belief Scale, and a sociodemographic questionnaire. To confirm the internal consistency of the scales, Cronbach's alpha was assessed. Correlational analyses were conducted.

Results: After omitting one item from the external perception of stigma subscale (because it significantly impacted the overall α) scales displayed good internal reliabilities ($.72 \leq \alpha \leq .75$). Correlation analyses indicated that the Internal Perception of the Stigma was positively correlated with the Gender Roles Belief Scale in the total sample ($r = .22$; $p < .01$) and in the subsample of gays ($r = .22$; $p < .05$), but no correlation was found in the lesbian subsample. No significant correlation between gender roles beliefs scale and external perception of stigma was found within three groups.

Conclusion: The results indicate that higher levels of gender role belief are associated with higher levels of internalised homophobia in gay men. This suggests implications for clinical work with gay men combating negative attitudes towards same-sex attraction. No such association was found within the lesbian subsample.

Policy of full disclosure: None

PS-01-003

PSYCHOLOGICAL CORRELATES OF HYPERSEXUAL DISORDER

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Objective: The aim of this study was to assess differences in discounting rates, level of impulsivity and compulsivity and attachment style in 3 groups of patients 1) compulsively masturbating; 2) having uncontrolled sexual relationships with multiple partners (HUSRwMP); 3) compulsively masturbating and HUSRwMP.

Methods: 108 patients meeting diagnostic criteria of hypersexual disorder by Kafka were interviewed and completed the Monetary Choice Questionnaire, UPPS-P Scale (Impulsive Behavior Scale), Y-BOCS (Yale-Brown Obsessive-Compulsive Scale), OCI-R (Obsessive – Compulsive Inventory – Revised), STAI Test (State-Trait Anxiety Inventory), ECR-R (Experiences in Close Relationships-Revised).

Results: We found differences in: - the average values of the discounting rate between the three tested groups. The highest discounting rates for each quota range were obtained by the patients from group 3. - two subscales UPPS-P scores between groups. These differences occur in the Premeditation (lack of) subscale and Perseverance (lack of) subscale. The respondents from group 3 receive significantly higher scores in these subscales in the UPPS Scale compared to the first two groups. - the intensity of obsessive-compulsive behaviors and anxiety between the three groups. On the OCI-R scale, 34% of the subjects were OCD. In the STAI test, 45.5% of the subjects had high anxiety as a trait. Groups 1:2 differed in the result of anxiety as trait. In the Y-BOCS were differences between groups 2:3 on the scale of compulsive disorder.

Conclusion: According to the described effect of withdrawal size - small amounts are discounted more strongly than high amounts in all groups of patients. Patients in group 3 were the most impulsive and preferred immediate rewards. Masturbating patients have a higher level of anxiety and a higher level of obsessive-compulsive disorder. These results may indicate that group 1 loss of control over masturbation is a high level of anxiety as a trait and is characterized by obsessive-compulsive disorder.

Policy of full disclosure: None

PS-01-004

GENDER AND SOCIAL PRESSURE IN SEXUAL FANTASIES - WILL THE FEMALE GENDER HAVE MORE PASSIVE FANTASIES?



De-Lacerda, N.

Objective: Human sexuality is a biological, emotional and social function, which involves the actions and the general experience of each individual either individually or in relation to others. With the knowledge of sexual fantasies, we can better understand of both genders and all the dependent variants of the different fulfilment and fortuity of desire.

Methods: We investigated the sexual fantasies of a Portuguese population using Wilson's Sexual Fantasies Questionnaire (modified in 2010), already validated for the Portuguese population. The population sample was obtained using the "snowball" method, within the Facebook social network, and the responses were anonymously sent to a Google Drive folder (Google Forms). Comparative descriptive statistical (uni-, bi-, and multivariate) analysis for independent samples was performed. This latter factorial analysis was carried out in order to find latent factors that could explain the correlation between the original analysis dimensions.

Results: 280 answers were obtained - 148 male, 132 female, median age 36 years (18-70 years old). Male gender revealed a greater number of fantasies (and of greater action) than the female, and, within subgroups by sexual orientation, a greater variety of fantasies was found in the gay and bisexual groups, in relation to the heterosexual group. The factorial analysis could retain 4 factors that explained approximately 50% of the variance of the data set. In fact, we could find 4 clusters of fantasies - "diversity", "conventional", "sado-masochism" and "force / innocent" - similar to the clusters of fantasies already described in the international literature. More fantasies were described outside of the questionnaire.

Conclusion: The male gender presented fantasies of greater individual action over the other, while the female gender revealed a greater volition to feel more passive ones. It seems important to reformulate Wilson's Sexual Fantasies Questionnaire considering the new capacity for expression of sexual fantasies and desires in the 21st century.

Policy of full disclosure: None

PS-01-005

THE EFFECT OF HORMONAL TREATMENT ON SEXUAL DISTRESS IN TRANSGENDER PERSONS: A TWO-YEAR FOLLOW-UP STUDY

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Objective: Up to date, no studies have investigated the psychobiological correlates of sexual distress (SD), as well as the impact of hormonal treatment (HT) on SD in transgender persons. To evaluate the psychobiological correlates of SD and to assess whether HT affects SD in a sample of transgender persons without genital confirming surgery.

Methods: 301 transgender persons (160 transwomen and 141 transmen) were considered for a cross-sectional part of the study. In addition, 72 subjects were studied in a 2-yr follow-up. A physical examination was performed and blood samples were drawn for determination of cortisol levels. Subjects were asked to complete psychometric measures to assess body uneasiness, Gender Dysphoria, psychopathology and sexual function. In addition, quality of life, as well as alexithymia, autism, social anxiety, and

humiliation levels were measured. Evaluation of SD was repeated two years prospectively during HT.

Results: SD showed a positive correlation with both body uneasiness ($p < 0.0001$ in both transwomen and transmen) and dissatisfaction towards gender-related body parts. Furthermore, SD was positively correlated with general psychopathology ($p < 0.0001$), alexithymia, social anxiety and humiliation in both groups. In transmen, SD was positively correlated with autism levels ($p = 0.003$), as well as with cortisol levels ($p < 0.013$). When subjects who did not attempt intercourse in the last 4 weeks were excluded, SD was negatively correlated with satisfaction levels in both groups. Regarding body parts, SD was positively correlated with hair distribution in transwomen and negatively with breast growth ($p = 0.015$ and $p = 0.023$, respectively). Finally, a negative correlation was found between SD and hair distribution in transmen ($p = 0.009$). When the impact of HT on SD was evaluated prospectively, a significant reduction of SD was observed across time in both groups ($p = 0.001$ and $p = 0.01$, respectively).

Conclusion: The present results support the efficacy of HT in reducing sexual related distress in transgender persons.

Policy of full disclosure: None

PS-01-006

SLOVENIAN ADAPTATION OF THE SEXUAL SELF-ESTEEM INVENTORY: PRELIMINARY RESULTS

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Objective: Sexual self-esteem is related to sexual identity, self-concept, and well-being. The Sexual Self-Esteem Inventory—Short Form (SSEI-SF) is a common measure of sexual self-esteem containing five seven-item subscales. There is a lack of valid measures adapted to specific sociocultural backgrounds. The aim of this study was to develop a Slovenian adaptation of SSEI-SF, to analyse its factor structure, and to measure its psychometric reliability and validity.

Methods: Following a language validation and pilot testing, an online survey was conducted, encompassing the Slovenian SSEI-SF, Rosenberg Self-Esteem Scale (RSES), Satisfaction with Life Scale (SWLS), and a

Table 1. summarised results

	Rod Diameter		
	Size 9.5 or 11	Site 13	
	N=150	N=33	
Percentage of patients without complications			
“Early”	90%	78%	P = 0.205
At 2 weeks	78%	65%	P = 0.097
At 4 weeks	90%	60%	P = 0.0003
Final Outcome			
Good or Fair	91%	81%	P = 0.236
Removed implant	1.20%	11%	P = 0.016
Patient Satisfaction (From 0 to 5)			
4-5	88.60%	75.70%	P = 0.0519
3	8%	12%	P = 0.238
0-2	3%	9%	P = 0.236
Mean age	56	57	
Diabetes (HbA1c>6.5)	61%	57%	

sociodemographic questionnaire. The final sample included 359 participants, mainly female ($n = 239$) and heterosexually oriented ($n = 297$). Factor and principal component analyses (with Varimax rotation) were conducted. Internal consistency (Cronbach's α) and convergent validity were also measured (Pearson's correlation coefficient).

Results: Factor analysis identified a five-factor structure. Items loading on more than one factor were excluded and a modified four-factor solution (explaining 50% of the total variance) was shown to be more appropriate, consisting of skills and competence, attractiveness, control, morality and adaptiveness. Reliability analyses of the final 29-items SSEE-SF indicated good internal consistency ($.76 \leq \alpha \leq .85$ and $.86$ for the total SSEE-SF). Convergent validity measures indicated a significant correlation between the subscales and the total scale with RSES and SWLS ($r \geq .30$, $p \leq .01$).

Conclusion: The Slovenian version of the SSEE-SF showed good psychometric properties. Structural differences in comparison to the original scale were found. Further investigation are needed to confirm the observed structure.

Policy of full disclosure: None

PS-01-007

THE FREQUENCY OF AND ATTITUDES TOWARD CONDOM USE AMONG ADULTS IN KOREA: A NATIONAL POPULATION-BASED STUDY

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Objective: To establish policy-based health programs that promote condom use, the availability of data on current condom use among the general population is crucial. This study aimed to examine rates of, and sentiments toward, condom use among Korean adults.

Methods: As part of the Korean National Sex Survey, a national probability sample of 1,820 sexually active individuals (917 men and 903 women) aged 18–69 years completed an online survey. The survey consisted of questions on demographic characteristics, frequency of condom use in the past 12 months, and attitudes towards condom use. The frequency of condom use was categorized as always/consistently, sometimes and never/seldom.

Results: Condom use rates of always/consistently and seldom/never represented 14.8% and 61.4% of the total responses, respectively. Women were slightly more likely to report their condom use as being always (15.0%) than were men (14.3%); however, the rate of never/seldom condom use was higher in women (63.2%) than in men (59.5%). Participants who were younger, unmarried and who had a higher level of education were more likely to use condoms frequently. A feeling of condoms being bothersome was the most common reason for not using them (57.4%). Other reasons included decreased sexual pleasure (35.8%), a request from their partner (17.5%), and unavailability (2.3%).

Conclusion: The present-day rate of regular condom use was less than 15% among our sample of Korean adults. There is a need to promote condom use, especially among groups with lower rates of condom use.

Policy of full disclosure: None

PS-01-008

UNSPOKEN AND UNDIAGNOSED: SEXUAL DYSFUNCTIONS IN ADULTS WITH ADHD

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Objective: The objectives of this study was to investigate the sexual dysfunctions in adults with ADHD in comparison to healthy individuals as control group.

Methods: A matched study was performed on adults with ADHD (Including two experimental groups each of which with 32 males and 31 females correspondingly) and healthy Individuals (Including control groups each of which including 35 males and 31 females correspondingly). The average age of attending individuals was 31 years. All four groups were matched for age, gender, and education status. DIVA was employed for ADHD diagnosis, SADS was used to screen comorbidity psychiatry disorders in both groups and also CAARS for excluding ADHD symptoms among control groups. Moreover, sexual functions were evaluated with FSFI (Female Sexual Function Index) and IIEF (International Index of Erectile function).

Results: The prevalence of sexual dysfunctions in ADHD group was significantly higher than control group (experimental groups including totally 6.3% males and 86.2% females and control groups including totally 3% males and 35.3% females): Sexual dysfunctions in women with ADHD compared to healthy individual including: orgasmic disorder(67.7%-3.2%), sexual dissatisfaction(56.7%-16.1%)arousal disorder(25.8%-6.5%)revealing sexua pain disorder(51.7%-9.7%) low sexual desire (16.1%- 6.5%) and decreased lubrication(25.8%, 6.5%). Based on the IIEF subscales, sexual dysfunctions in men with ADHD in comparison to healthy individuals were as follow: erectile disorder (12.5%-2.9%), orgasmic disorder (9.4%- 2.9%), sexual dissatisfaction (9.4%-5.7%), and total dissatisfaction (53.1%, 5.9%). There was no sexual desire disorder in ADHD and in men in control group. **Conclusion:** Regarding the significant percentage of sexual dysfunctions in adults ADHD in comparison to the healthy groups, assessment of sexual functions in patients with ADHD should be considered. Future studies could benefit from exploring the various biological and psychosocial possible factors other than those considered here

Policy of full disclosure: None

PS-01-009

RECOGNITION OF THE SEXUAL RIGHTS OF PEOPLE WITH PHYSICAL AND PSYCHICAL DISABILITY

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Objective: The aim of this study was to analyze the level of agreement of Italian people with the Sexual Rights (SR) of people with physical (PHYD) and psychical (PSYD) disability. A further aim was to verify if some characteristics of the population, such as age, gender, instruction, being from northern or southern regions, being non-believers or churchgoers, were associated with a lower SR recognition. Finally, if people recognize PHYD and PSYD SR in the same way.

Methods: An online anonymous questionnaire was realized to collect demographic data and information about the level of agreement/disagreement (on a 6-point likert scale), with statements regarding SR for PHYD and PSYD: to practice a satisfying sexuality, to marry, to adopt a child. Nonparametric statistics were used for data analysis.

Results: 979 People (703 women and 276 men, mean age $35,44 \pm 11,69$) fulfilled the questionnaire. 5.0 % of the sample declared to be against the right to have a satisfying sexuality for PHYD and 14.3% for PSYD; 1.8% was against marriage for PHYD and 21.3% for PSYD. 17.6% did not recognize the right to adopt children for the PHYD and 78% did not

recognize it to the PSYD ones. Statistically significant differences existed in the percentages of respondents in agreement with each SR of PSYD, compared to PHYD and etherosexual people ($p < 0.001$). Being male, religious and having a lower level of education seem to be related to a higher risk of intolerance.

Conclusion: SR of PHYD were recognized by most of our sample, while PSYD were subjected to higher stigma. A better identification of the less tolerant respondents and/or the less recognized categories may allow for specific strategies and interventions for the recognition of SR for disabled.

Policy of full disclosure: None

PS-01-010

THE INFLUENCE OF BODY IMAGE AND PSYCHOLOGICAL WELLBEING ON SEXUAL FUNCTIONING ASSESSED ACCORDING TO A GENDER PERSPECTIVE



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Objective: The aim of this study was to evaluate the relationships between sexual functioning, psychological wellbeing and body image in a gender-dependent manner.

Methods: We recruited a sample of 201 university students (males: $n=102$; females: $n=99$) and we administered them the Body Uneasiness Test (BUT), the Psychological Well-Being Scale (PWB) and the Golombok Rust Inventory of Sexual Satisfaction (GRIS).

Results: A first comparison of means revealed that females show more pathological scores in body image and sexual functioning compared to males (Figure 1). Regression analysis revealed that in males, personal growth and environmental mastery of PWB has a protective role against sexual problems ($\beta=-305$; $p=.04$ and $\beta=-431$; $p=.005$, respectively). Autonomy of PWB protects from sexual dissatisfaction ($\beta=-238$; $p=.046$) and self-acceptance contrasts the non-sensuality ($\beta=-475$; $p=.01$). Interestingly, depersonalization scale of BUT is negatively related to impotence scale of GRIS ($\beta=-368$; $p=.03$). In females, we found a predictive role of avoidance scale of BUT on total score and infrequency scales of GRIS ($\beta=271$; $p=.006$ and $\beta=266$; $p=.02$, respectively), while self-acceptance of PWB is protective on total score of GRIS ($\beta=-.587$; $p=.0001$). Instead GSI of BUT predicts sexual problems as assessed with total score of GRIS ($\beta=3.521$; $p=.002$). Interestingly, weight phobia of BUT protects from sexual dissatisfaction ($\beta=-.727$; $p=.02$) and self-acceptance of PWB also protects from sexual avoidance ($\beta=-.571$; $p=.003$). Environmental mastery protects by vaginismus ($\beta=-.352$; $p=.001$) and anorgasmia ($\beta=-.331$; $p=.03$), while purpose in life predicts vaginismus ($\beta=-.339$; $p=.03$).

Conclusion: In our sample the young women showed major problems in terms of sexual functioning and body image compared to males. Moreover, in males, sexual health mainly depends from psychological wellbeing. Instead, in women several phases of sexual response are affected by a negative body image and a general negative self-esteem. These results highlights gender differences with many clinical implications for the sexual therapies.

Policy of full disclosure: None

PS-01-011

SEXUAL IDENTITY, EXPERIENCES AND ATTITUDES OF PEOPLE WITH DEVELOPMENTAL DISABILITIES



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Objective: Project of the Faculty of Education and Rehabilitation Sciences (Zagreb) was carried out in Croatia in 2017 with the objective to expand knowledge on the characteristics of sexual identity of people with intellectual (ID) and physical disabilities (PD).

Methods: In the case of persons with ID, a focus group interview method was used which included four groups of 8-10 persons. A qualitative thematic analysis has provided a thematic unified key response category on the following issues: how people with ID experience describe sexuality, love, and intimate relationships; experiences they have with regard to their own expression of sexuality, partnerships and relationships; how well they know social and legal norms, as well as the risks associated with sexual relationships. The aim of the research related to people with PD is to establish the correlation between the quality of life and the sexual self-esteem of persons with PD and explore sexual self-esteem of persons with PD considering marital status. 20 respondents with PD, chronological age 21-51 ($M = 31.9$ years) completed two online questionnaires: SF-36 Health Questionnaire and Physical Disability Sexual and Body Esteem Questionnaire (PDSBE).

Results: It has been shown that the development of sexual identity of people with ID is significantly marked by general experience of growing up and intellectual difficulties. Further, development of sexual identity of people with ID is also marked by available opportunities and limitations of the environment which depends, on the other hand, interconnected to living conditions, sexual education and other forms of necessary support. In the group of people with PD, results show statistically significant differences between individuals who are single and married in relation to the overall outcome of the PDSB questionnaire ($p = 0.041$), where related persons have significantly better sexual and physical self-sufficiency. Also, persons who are in relationship considered themselves more attractive to people of the opposite sex ($p = 0.027$). There was no statistically significant correlation between quality of life and sexual self-esteem.

Conclusion: The research contributes to the expansion of the existing and the identification of new scientific-foundations at national and international level and guidelines for further research.

Policy of full disclosure: None

PS-01-012

HEALTHY SEXUAL AGING: A QUALITATIVE EXPLORATION OF THE SEXUALITY AND SEXUAL HEALTH OF OLDER ADULTS IN THE UK



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Objective: Older adults still face negative stigma regarding their sexual lives and remain an under-represented group within the field of sex research (Hinchliff, 2016; Syme, 2014). Research into the sexual lives of older gay, bisexual, and lesbian adults is particularly lacking. Questions remain over how older adults experience the transition to older age with regards to their sexual lives, particularly for these minority groups. Therefore, we aimed to undertake an in-depth exploration of the sexual lives and sexual health of older adults in the UK.

Methods: Thirty-one older adults aged 66-92 participated in semi-structured interviews conducted either at the University of Southampton or within their own homes. Transcripts were coded inductively and thematic analysis (Braun & Clarke, 2013) was used to identify and interpret patterns within and across the data, as well as contradictions of these patterns and the context in which they occur.

Results: Preliminary results indicate that older adults believe that societal and cultural views on sex have shifted rapidly within their lifetime. The

media has gradually become more overt in how it displays and represents sex, painting a changing picture of what constitutes a “normal” sex life. Older adults focused on health and functional aspects of body image over aesthetics and rejected “overly glamorous” celebrities as appropriate role models for the typical aging adult. Furthermore, norms of sexual decline into older age seem salient, with many older adults choosing to accept changes and difficulties they may experience, focusing on what they have retained rather than what they have lost.

Conclusion: The findings support the notion of “sexual wisdom” (Forbes et al., 2017), whereby older adults acquire new skills to help buffer the impact of age on sexual quality and well-being. These include a greater focus on intimacy and companionship, as well as a broader view of what constitutes sexuality.

Policy of full disclosure: None

PS-01-013

THE ROLE OF SEXUAL DESIRE, SEXUAL SATISFACTION AND RELATIONSHIP SATISFACTION IN THE SEXUAL FUNCTION OF ARAB COUPLES LIVING IN SAUDI ARABIA

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Objective: This study is one of the first to examine the interrelation between relationship and sexual variables as approached from a dyadic perspective in Arabian couples. Theoretical models assign an important role to relationship factors in women's sexuality.

Methods: We examined the role of sexual and relationship satisfaction relative to sexual desire in explaining sexual function in a sample of clinical versus control couples. A sample of 50 heterosexual couples with sexual problems and 50 control couples without problems (N=100), completed an Arabic version of measures of relationship satisfaction, sexual satisfaction, sexual desire, sexual distress, and sexual function

Results: Results showed that in the clinical group, the sexual functioning of women was predicted by their own and their partner's level of sexual satisfaction, and their own level of solitary and dyadic sexual desire. Men's sexual function was predicted by their own sexual satisfaction and their partner's relationship satisfaction. In the control group, the sexual function of women was predicted only by their level of sexual satisfaction. In men, sexual

function was predicted by their own sexual satisfaction and their level of dyadic sexual desire

Conclusion: These results indicate that sexual desire rather than relationship satisfaction plays an important role in women's sexual dysfunction. Being the most consistent determinant of male and female sexual functioning, sexual satisfaction is an important target of intervention in Arabian couples.

Policy of full disclosure: None

PS-01-015

ONE TO ONE -MODEL: A ROADMAP TO TALK PRO-ACTIVELY ABOUT SEXUAL HEALTH WITH PATIENTS

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Objective: In Flanders 22% of women and 13% of men suffer from sexual dysfunctions. Only a minority of them seek help for these problems. 94% of the general population in Belgium has a general practitioner (GP) which is visited at least yearly by 77%. Therefore, GPs have a crucial role in reaching the general public and in detecting sexual problems. How can general practitioners be motivated to pro-actively discuss sexual health with their patients?

Methods: Hindering barriers were identified through a literature study and through a questionnaire filled out by 100 GPs. A lack of knowledge, time and not knowing how to start were the most mentioned barriers.

Results: The 'One to one' (O2O) model is developed to support GPs and lower the resistance of patients in discussing these topics. The model is based on the PLISSIT model (Annon, 1977) and motivational interviewing (Miller & Rollnick, 2006). The O2O model is a 4 step roadmap; 1. pro-actively discuss sexual health, 2. motivate the patient to talk about sexual health (based on the Bio Psycho Social model and ICE-questioning technique) 3. Summarize the narrative of the patient and 4. Provide a tailored support offer for the patient. This O2O model offers textual examples and provides GPs an easy to use tool. The O2O model is integrated in a training package for GPs. The Flemish government supports 60 trainings. Preliminary results will be discussed at the meeting. In 2019 the Flemish universities will integrate this O2O in their university training for GP students.

Conclusion: Even though GPs are convinced that sexual health is important, pro-actively talking about this issue with patients isn't easy. The 'One to one' (O2O) model supports GPs in pro-actively discussing sexual health within the reality of a doctor's consult. No specialized sexual health information is needed.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-02 Female sexual health and dysfunction-1

PS-02-001

PAIN CATASTROPHIZING, FEAR OF PAIN, AND DEPRESSION AND ITS ASSOCIATION WITH FEMALE SEXUAL PAIN

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Objective: In accordance with the present biopsychosocial understanding of female sexual pain as a multifactorial condition, the objective of the present study was to establish the importance of pain catastrophizing (PC), fear of

pain, and depression for the development and maintenance of female sexual pain.

Methods: Information on sexual pain was assessed at two different time points in 2009 and 2013 in a convenience sample of N = 979 British women. Well validated questionnaires including the Pain Catastrophizing Scale, the Pain Anxiety Symptom Scale, and the Female Sexual Function Index (recent and lifelong version) were applied.

Results: Significant associations between lifelong sexual pain and PC ($r = -0.07$), rumination ($r = -0.08$), and depression ($r = -0.09$; $p < 0.05$ for all) could be observed. When entered into a multiple regression model, only depression turned out to be independently associated with sexual pain, with

women reporting higher depression levels also reporting more sexual pain ($p < 0.05$). Multilevel modeling showed a strong increase of short lived sexual pain over the four years ($\pi_{01} = -0.33$, $p < .001$). According to the moderation analyses, only depression influenced the change in short lived pain over the four years ($\pi_{11} = 0.46$, $p = .016$).

Conclusion: Symptoms of depression seem to be the only independent predictor of lifelong sexual pain, over-riding potential influences of pain catastrophizing or fear of pain. Clinicians should be aware that the psychosocial mechanisms influencing short lived sexual pain and changes in sexual pain seem to be different from the more enduring psychological factors that lead to the development and maintenance of "chronic" sexual pain.

Policy of full disclosure: Andrea Burri is an advisory board member and consultant for A. Menarini Pharmaceuticals.

PS-02-003

OUTCOME OF MEDICAL AND PSYCHOSEXUAL INTERVENTIONS FOR VAGINISMUS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Objective: Although Vaginismus (V) is a condition with a great impact on psycho-sexological well-being, the evidence on the efficacy of interventions is lacking. We aimed to review all information on V treatment, including data from RCTs and observational studies.

Methods: Systematic search was conducted of MEDLINE, EMBASE, PsycINFO and ClinicalTrials.gov. Two independent meta-analyses of RCTs and observational studies were performed. For RCTs, only those having no treatment as the comparator were considered eligible. The primary outcome was the success rate (number of successes / total sample) in the completion of sexual intercourse.

Results: 43 observational studies ($n=1660$) and 3 RCTs ($n=264$) were included in the final analyses, respectively. In the meta-analysis of RCTs, the use of psychological interventions showed a trend towards a significantly better result vs. waiting list control [MH-OR 10.27 (0.79;133.5); $p=0.075$]. The combination of the Results obtained from the observational studies showed that treating V is associated with the completion of sexual penetrative intercourse in 79% of cases, independently of the therapy used [success rate 0.79 (0.74–0.83)]. When only moderate or strong quality studies were considered, the success rate was 0.82 (0.73–0.89). As for the different definitions of V, studies with unconsummated marriage as the inclusion criterion showed the worst success rate (0.68). Neither the origin of V (primary, secondary or both), its duration, the mean age of the participants, the involvement of the partner in the intervention or the geographic setting exerted a significant effect on the outcome. Studies enrolling women with unconsummated marriage showed a significantly worse success rate.

Conclusion: The meta-analysis of RCTs documented a trend towards higher efficacy of active treatment vs. controls, whereas the meta-analysis of observational studies indicated that women with V benefit from a range of treatments in almost 80% of cases. No approach is superior to the others in allowing the achievement of penetrative intercourse in women with V. Due to the limited evidence available, great caution is required in the interpretation of Results; further well-designed trials, with more appropriate outcomes than penetrative sex, are required.

Policy of full disclosure: None



PS-02-004

CORRELATIONS AMONG PHYSIOLOGICAL LUBRICATION AND SELF-REPORTED SEXUAL AROUSAL IN WOMEN WITH AND WITHOUT SEXUAL DYSFUNCTION

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Objective: Objectives: Current research relies almost exclusively on women's self-reported assessment of lubrication or infers lubrication from measures of genital blood flow. In an attempt to measure women's lubrication response more directly, we assessed the feasibility of using Schirmer Tear Test strips and compared these Results to self-reported sexual arousal.

Methods: Methods: Before and after viewing an erotic film presentation, women with ($n = 33$) and without ($n = 34$) sexual dysfunction measured physiological lubrication with Schirmer Tear Test strips, an FDA-approved measure of tear production. Women inserted one test strip into their vaginal introitus at a standardized location and depth for 60 seconds, after which researchers measured the length of absorbed moisture. In addition to measuring physiological lubrication, women completed a self-report measure on autonomic arousal, perceived genital arousal, and subjective sexual arousal.

Results: Results: Significant increases in physiological lubrication emerged, regardless of sexual function status, $t(109.23) = 4.067$, $p < .0001$. Autonomic arousal, perceived genital arousal, and subjective sexual arousal increased significantly for both groups, though women without sexual dysfunction reported significantly greater levels of perceived genital arousal than women with sexual dysfunction, $F(64) = 8.201$, $p = .005$. Weaker correlations emerged for women with than without sexual dysfunction between physiological lubrication and autonomic arousal ($r = -0.09$ vs. 0.51, respectively) and perceived genital arousal ($r = -0.06$ vs. 0.45, respectively). Correlations between physiological lubrication and subjective sexual arousal were low in women with and without sexual dysfunction ($r = -0.18$ vs. 0.09, respectively).

Conclusion: Conclusions: The Schirmer Tear Test may be a useful measure of physiological lubrication. Future research should validate the use of this test as a measure of lubrication and identify clinical cut-off scores. Furthermore, physiological lubrication may be more related to self-reported autonomic and genital arousal than to subjective sexual arousal, and that this may be particularly true for women without sexual dysfunction.

Policy of full disclosure: None

PS-02-005

ENDOMETRIOSIS AND SEXUAL FUNCTIONING: HOW MUCH DO PSYCHO-EMOTIONAL FACTORS MATTER?

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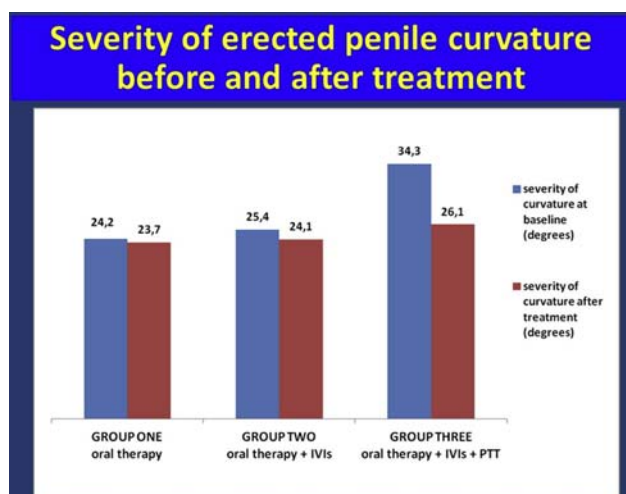
Objective: Endometriosis is a gynecological condition often associated with genito-pelvic pain. Psycho-emotional factors, such as lack of emotional awareness and/or presence of negative emotions, have an important role on sexual dysfunctions. These factors could be associated with higher pain perception and worse sexual outcomes in endometriosis women. The aim of the present study was to compare the psycho-emotional profile and the sexual functioning of women with and without endometriosis.

Methods: 35 endometriosis women (Endometriosis Group EG), recruited in the Gynecological Department of the University Hospital of Rome (age 35.49 ± 7.64), and 41 healthy women (Control Group CG) of the general



population (age 34.27 ± 7.81), completed a socio-demographic questionnaire, the McGill Pain Questionnaire (MPQ), the Female Sexual Functioning Index (FSFI), the Symptoms Checklist (SCL-90-R), the Toronto Alexithymia Scale (TAS-20), the Positive and Negative Affects Scale (PANAS). Factorial one-way MANOVAs and Independent Samples Test were used to analyze differences between groups.

Results: EG reported general worse sexual functioning and higher levels of genital pain compared to CG [$F(1,73)=7.43$ $p<.01$]. Regarding psycho-emotional profile, EG got worse scores than CG only in Somatization subscale of SCL-90-R [$F(1,73)=12.52$ $p<.006$], explaining the 14.6% of variance. Moreover, EG reported more negative emotions toward sexuality, reaching higher scores on Negative Affections Scale of PANAS ($t=2.34$; $df=31$; $p<.05$). No significant differences were found on TAS-20 domains, but some tendencies were highlighted.



Conclusion: Endometriosis women experienced more negative emotions toward sexuality and a tendency to somatization comparing to healthy women. These aspects may be implicated in their worse sexual functioning. Physical symptoms, such as pain, could imply negative feelings, and lack of emotional awareness could lead to body's symptoms. Therefore, Results suggest the importance of an integrated approach; treatments should involve also mind-body techniques (pelvic floor exercise, mindfulness, bioenergetics techniques etc.) in which both somatic and mental components of emotions could be taken into account.

Policy of full disclosure: None

PS-02-006

THE IMPROVEMENT OF MUSCLE STRENGTH AFTER A PELVIC FLOOR TRAINING PROGRAM IN FEMALES WITH STRESS URINARY INCONTINENCE IS ASSOCIATED WITH A BETTER SEXUAL FUNCTION OF THE COUPLE

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Objective: Pelvic floor muscle training (PFMT) has been recommended as the first step of conservative management of stress urinary incontinence

(SUI). Several studies have suggested that pelvic floor muscles play an important role in female sexual function. The aim of our study was to evaluate if a significant improvement of muscle strength after pelvic floor training program in females with SUI is associated with a better sexual function of the couple.

Methods: A retrospective observational study was conducted. The sample consisted of 169 women with SUI, treated with a supervised program of PFMT for 6 months. All females were evaluated at the beginning and the end of the study for incontinence episodes, the number of daily pads, pelvic floor muscle strength and fulfilled Female Sexual Function Index (FSFI) questionnaire. All male partners were evaluated with the Satisfaction Scale of Male Sexual Health Questionnaire (MSHQ) and the Likert visual scale (1 to 5 points). Pelvic floor muscle strength was assessed via vaginal palpation (using the Modified Oxford Scale) and vaginal squeeze pressure using the Peritron perineometer. According to the final continence status after six months of PFMT, women were divided into Group A, 107 women, still presenting incontinence episodes and Group B, 62 women who were dry. Results: At the end of the study, in Group A, incontinence episode frequency decreased by 35.1% and patients required 39% fewer pads per week. In the analysis of the correlation between total FSFI score, satisfaction domain of MSHQ and PFM strength values in the sample, both PFM strength indicators presented a strong positive correlation with FSFI score or satisfaction domain of MSHQ.

Conclusion: The improvement of urodynamic SUI in women after a PFMT is associated with improvement in the couple's sexual life.

Policy of full disclosure: None

PS-02-007

SEXUALITY OF PREGNANT WOMEN AND THEIR FEAR OF HARMING THE BABY

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Objective: The research focuses on women's sexuality during pregnancy, their fear of harming the baby during sexual intercourse and its connections to other factors.

Methods: The study included 200 nulliparous women (average age 30.5 yrs, average gestational age 31.6 wks), who attended preparation for birth course. They anonymously answered questionnaires: The Female Sexual Function Index Questionnaire, the ENRICH Marital Satisfaction Scale, WHO Well-being Scale, Fear of harming the baby and Attitudes towards sexuality scale. The participants also reported about their sources of information on sex in pregnancy. Women who were advised to abstain from sexual intercourse for at least 4 weeks in the last 2 months were excluded from the study.

Results: 21% participants reported not engaging in coital activity in the last two months, whereas 35% reported average weekly coital frequency in the last two months. 54% reported talking to their doctor about sex during pregnancy and 36.5% reported they received most information about the subject from their doctor. 50% of women reported no fear of hurting the baby during sexual intercourse, 35% were not at all concerned about sexual intercourse causing preterm labor. We found no difference in fear between the group who talked to their doctor and the group who did not, but interestingly we found that women who talked to their mothers about sex during pregnancy reported more fear of hurting the baby. Weak correlations were found between fear of hurting the baby and some aspects of sexuality (sexual arousal), general well-being, and relationship satisfaction and moderate correlations with attitudes towards sexuality.

Conclusion: The Results suggest that the fear of harming the baby during sexual intercourse in pregnancy derives less from the lack of information and more from deeply rooted beliefs, cultural norms and personal attitudes.
Policy of full disclosure: None

PS-02-008

THE IMPORTANCE OF MALE EJACULATION FOR FEMALE SEXUAL SATISFACTION AND FUNCTION



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Objective: Past studies have mainly focused on criteria like ejaculatory control or intravaginal ejaculatory latency time and its association with women's sexual functioning, neglecting other ejaculatory criteria. To fill this gap, the objective of the study was to assess the importance of subjectively perceived ejaculation intensity and ejaculation volume for female sexual function and satisfaction.

Methods: A cross-sectional online survey conducted in Switzerland including N = 240 sexually active, heterosexual women (M age 25.2 years) and using study-specific questions and the Female Sexual Function Index.

Results: 50.43% of women considered it very important that the partner ejaculates during intercourse. 18.3% of women preferred that the partner ejaculates before they reach orgasm whereas for 53.5% this didn't matter. 22.6% of women stated that they experienced a more intense orgasm when their partner ejaculated during vaginal intercourse. 17.4% reported that they definitely experienced a more intensive orgasm depending on the intensity of their partner's ejaculation, whereas for 17.8% this didn't matter at all. 20.9% of women did not feel that their orgasm was more intense depending on the subjectively felt ejaculate quantity, whereas the majority (37.9%) stated that it didn't matter. 13.1% of women regarded the quantity of expelled ejaculate as an expression of their own sexual attractiveness. Women stating that they experienced more intense orgasms when the partner ejaculated, when the partner experienced a more intense ejaculation, and when he expelled a greater ejaculate quantity also reported better lifelong orgasmic function ($r=0.14$, $r=0.15$, $r=.26$, respectively) and more lifelong sexual satisfaction ($r=.29$, $r=.15$, $r=.26$, respectively).

Conclusion: Male ejaculation and its different aspects seems to play an important role for women, not only because of its physiologic features, but also for cognitive and emotional reasons. Further research is required to examine the different reasons why ejaculation is considered to be important among women.

Policy of full disclosure: Andrea Burri is an advisory board member and consultant for A. Menarini Pharmaceuticals. Hartmut Porst is a consultant and speaker for Berlin Chemie/Menarini group and Recordati.

PS-02-009

FSFI AS A SCREENING TOOL FOR ASSESSING WOMEN'S SEXUAL DIFFICULTIES IN SLOVENIA



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Objective: Female Sexual Function Index (FSFI) was used to assess women's sexual difficulties and needs for psychosexual interventions. The aim of the

study was to estimate the relationship between self-assessment women sexual difficulties and age groups.

Methods: Totally, 579 women between January 2013 and July 2018 were interviewed in two outpatient clinics for sexual health in Ljubljana and Novo mesto. According to clinician decision 101 (17.4%) women met criteria for the study. With a "gold standard" self-reported questionnaire FSFI six domains of female sexual function (desire, arousal, lubrication, orgasm, satisfaction and pain) related to sexual activity over past four weeks were assessed. According to literature recommendation we divided women in to groups with and without sexual difficulties (SD) (a cut-off FSFI scores <26.55). and four age groups: 17 to 30 years (Group1); 31 to 40 years (Group2); 41 to 50 years (Group3); ≥51 years (Group4). We used chi-square test for statistical analysis. A p-value less than 0.05 was considered statistically significant.

Results: The median age of women was 35 years (standard deviation 10.7). The prevalence of sexual difficulties was: desire 41.6%, arousal 79.2%, lubrication 76.2%, orgasm 74.2%, satisfaction 91.0% and pain 74.2%. Totally, the prevalence of SD based on a cut-off FSFI scores was 73.3%. The Results of relationship analysis between self-assessment SD and age show the decreasing gradient through age (Group1:33.8%; Group2: 31.1%, Group3: 21.6%, Group4: 13.5%), ($p < 0.225$).

Conclusion: We concluded that older women less often self-report the sexual difficulties. The general limitation of the study is that we didn't measure sexual distress. In the future, the socio-economic factors and comorbid disorders are needed to include in analysis.

Policy of full disclosure: None

PS-02-010

CHILDHOOD SEXUAL ABUSE AND TREATMENT OUTCOME IN PATIENTS WITH EATING DISORDERS



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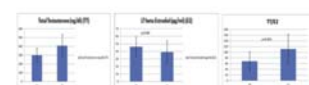
Objective: Childhood sexual abuse is associated with both eating disorders and sexual dysfunction in adulthood. The aim of the present study was to investigate the role of childhood sexual abuse as a moderator of outcome in patients with Anorexia Nervosa and Bulimia Nervosa, in terms of psychiatric symptoms, and sexual dysfunctions.

Methods: One hundred and fourty four female patients reporting a diagnosis of Anorexia and Bulimia Nervosa were evaluated before a cognitive behavioral intervention, at the end of this intervention, and at three years follow up. Patients underwent a clinical interview, and the female sexual function index.

Results: Regardless the diagnosis patients reporting childhood abuse showed a lower rate of recovery from mood disorder comorbidity at three years follow up, as well as a persistent sexual dysfunction.

Conclusion: Childhood abuse is a relevant moderator of psychopathological and sexual outcome in patients with eating disorders.

Blood parameters	T0	T1	P < 0.05
Total testosterone (ng/dl) (T1)	298.2 ± 81.4	405.3 ± 124.8	0.002
17 beta Estradiol (pg/ml) (E2)	46.4 ± 12.1	37.8 ± 16.2	0.049
T1/E2	69.1 ± 34.1	110.9 ± 52.8	0.003



Body composition parameters	Baseline	After 10% Weight loss	P Value
Weight (kg)	108.9 ± 18.8	99.5 ± 17.8	0.0001
BMI (kg/m ²)	35.9 ± 7.2	32.9 ± 7.1	0.0001
WHtR	0.9 ± 0.2	0.9 ± 0.2	0.052
Total FM%	39.8 ± 6.9	35.1 ± 6.7	0.0001
Android FM%	52.1 ± 6.3	46.3 ± 6.5	0.001
Gonoid FM%	39.1 ± 6.1	36.4 ± 5.9	0.0001
FM 1/2-1/5 (kg)	6.99 ± 2.9	5.9 ± 2.5	0.0001
Total FM (kg)	41.9 ± 12.1	38.1 ± 8.7	0.0001
Total FFM (kg)	62.5 ± 7.9	60.1 ± 7.2	0.002
A/G	1.28 ± 0.06	1.41 ± 0.08	0.784
BMD (g/cm ²)	1.5 ± 0.6	1.5 ± 0.5	0.359

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-03 Female sexual health and dysfunction-1

PS-03-001

RETHINKING THE TECHNO VAGINA: A CASE SERIES OF PATIENT COMPLICATIONS FOLLOWING VAGINAL LASER TREATMENT FOR ATROPHY

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Objective: Currently, many treatment options exist for Genitourinary Syndrome of Menopause (GSM), including prescription hormone therapy, over the counter products, and recently laser treatment. While the Food and Drug Administration (FDA) has cleared fractional CO₂ laser for dermatologic and gynecologic indications, lasers are not approved for use for vulvar/vaginal atrophy, vaginal laxity, decreased sexual function, or dyspareunia. Prospective, randomized, sham-controlled clinical study data showing efficacy and safety remains sparse and follow up that includes documentation of adverse events should be noted.

Methods: Two case studies referred to a tertiary sexual medicine center regarding laser treatment complications are reported.

Results: Case 1: After completing 3 CO₂ vaginal laser treatments, the 62-year-old woman was given approval for sexual intercourse. Immediately following intercourse, she reported heavy bleeding and went to the hospital. Upon examination, two vaginal wall lacerations were noted and repaired. Currently, she has a moderate amount of vaginal fibrosis and can only engage in sexual intercourse utilizing several treatment options. Case 2: A 63-year-old woman complaining of painful intercourse following the first of 3 CO₂ vaginal laser treatment which got progressively worse following the remaining two treatments. The patient reports a sharp decline in sexual life. Currently she is undergoing aggressive vaginal rehabilitation.

Conclusion: While vaginal laser therapy shows promise for GSM treatment in some women, no intervention is without potential adverse events. Complications of fibrosis, scarring, and penetration injury are emerging following laser treatments. Currently, FDA approved products for GSM should be considered front line treatments for GSM and long-term, randomized, sham-controlled clinical trials should be conducted to ascertain the efficacy and safety of novel GSM treatments.

Policy of full disclosure: None



PS-03-002

PSYCHOBIOLOGICAL CORRELATES OF VAGINISMUS: AN EXPLORATORY ANALYSIS

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Objective: To investigate, in a cohort of subjects consulting for female sexual dysfunction (FSD), whether there is a difference in medical and psychosocial parameters between women with vaginismus (V) and women with other sexual complaints.

Methods: A series of 255 women attending our clinic for FSD was consecutively recruited. V was diagnosed according to Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision criteria. Patients underwent a structured interview and physical, gynecologic, laboratory, and clitoral ultrasound examinations; they completed the Female



Sexual Function Index (FSFI), the Middlesex Hospital Questionnaire (MHQ), the Female Sexual Distress Scale Revised (FSDS), and the Body Uneasiness Test (BUT).

Results: V was diagnosed in 20 patients (7.8%). Women with V were significantly younger than the rest of the sample ($P < 0.05$). No differences were found for traditional risk factors such as a history of sexual abuse, relational parameters, or gynecologic diseases or for newly investigated parameters (ie, neurologic, hormonal, metabolic alterations). Women with V showed significantly higher histrionic-hysterical symptoms and traits (as detected by MHQ-H score) compared with subjects with other sexual complaints. When the scores of all MHQ subscales were simultaneously introduced in a logistic model, the association between V and MHQ-H score was confirmed ($P = 0.013$). Women with V also showed higher FSFI pain and FSDS total scores, even after adjusting for age ($P < 0.05$). In an age-adjusted model, FSDS total score increased as a function of the years of duration of V ($P = 0.032$) but not as a function of its severity. All observations were confirmed in a case-control study (ratio = 1:3).

Conclusion: V was associated with histrionic-hysterical traits, FSFI pain domain, and sex-related distress. A history of abuse, relational parameters, gynecologic diseases, and hormonal and metabolic alterations do not seem to play a role in the development of V.

Policy of full disclosure: None

PS-03-003

SURGICAL TREATMENT OF CLITORAL PHIMOSIS AND ITS EFFECTS ON FEMALE SEXUAL FUNCTIONS

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Objective: We aimed to determine the etiology of clitoral phimosis, its influence on sexual function, and outcomes after surgical treatment.

Methods: In this prospective cohort study, we observed the occurrence of clitoral phimosis and related changes in a group of 3,650 sexually active heterosexual women with a mean age of 34.8 ± 14.9 years (20–45 years) from September 2014 to September 2016. Ultimately, we compared the changes in sexual function and distress and satisfaction with postoperative genital appearance in nine patients with severe clitoral phimosis at 12 months after surgical treatment.

Results: Various forms of CP were found in 46 of 3,650 patients (1.3%). Severe forms of CP were found in 9 cases, but it was complicated by stenosis of vaginal introitus (SVI) in only two cases. These nine patients underwent circumcision and two of them underwent perineoplasty. FSD occurred mainly in those with LS and severe forms of phimosis. Sexual function, as indicated by the total FSFI score, was significantly improved at 12 months postoperatively (17.9 ± 0.9 vs. 26.6 ± 0.5 ; $p < 0.001$). The FGSIS score assessing genital perception was significantly higher postoperatively than preoperatively in women who underwent clitoral circumcision (20 ± 3.0 vs. 12.3 ± 3.3 ; $p < 0.001$). The FSDS-R score was significantly lower postoperatively than before (21.3 ± 6.2 vs. 33.8 ± 6.9 vs.; $p < 0.001$). Sexual function in two women with CP and SVI improved postoperatively, but the sexual distress level did not decrease significantly.

Conclusion: Surgical treatment of clitoral phimosis improves sexual function, but because LS - a common underlying cause - is chronic in nature, patients may experience recurrence.

Policy of full disclosure: None



PS-03-004

SEXUAL BELIEFS, MODES AND COGNITIVE SCHEMAS IN ENDOMETRIOSIS WOMEN: A BARRIER IN SEEKING HELP FOR SEXUAL PAIN?

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Objective: Endometriosis is a chronic condition frequently characterized by genito-pelvic pain. Sexual and relational impairments in women with this condition are largely reported in literature. No prior study, at our knowledge, focused on the cognitive factors associated to sexuality (sexual beliefs, modes and schemas), which are widely recognized as risk and maintaining factors for sexual dysfunctions. The aim of the present study was to investigate the presence of sexual cognitions in a group of endometriosis patients compared to a group of healthy women similar for sociodemographic variables.

Methods: A group of 35 Endometriosis Women (EW), recruited in the Gynecological Department of the University Hospital "Policlinico Umberto I" of Rome (age 35.49±7.64), and a Control Group (CG) of 41 healthy women from the general population (age 34.27±7.81) completed: a socio-demographic questionnaire; the McGill Pain Questionnaire (MPQ); the Female Sexual Functioning Index (FSFI); the Sexual Dysfunctional Belief Questionnaire (SDBQ); the Sexual Modes Questionnaire (SMQ); and the Questionnaire of Cognitive Schema Activation in Sexual Context (QCSASC).

Results: EW reported general worse sexual functioning and higher levels of genital pain compared to CG [F(1,73)=7.43; p<.01], and rarely seek help for their sexual problems [chi2=6.84]. Regarding cognitions, EW reported higher scores on "Sexual Conservatism" [F(1,73)=7.63; p<.01] and on feeling "Helpless" [F(1,73)=5.34; p<.05], explaining respectively 9.8% and 18.8% of variance. SMQ resulted on no significant differences between groups, but some tendencies were highlighted.

Conclusion: General ideas such as "nobody can help me" and "sexual pain is normal for women" seem to be common in Endometriosis women. These cognitions might contribute to explain why many women do not seek help for sexual pain. This novel result should be confirmed with larger studies. General Practitioners and Gynecologists should be prepared to recognize and manage these possible cognitive resistances to let Endometriosis women move towards an integrate approach to sexual health.

Policy of full disclosure: None



PS-03-005

THE EFFICACY OF VAGINAL MOISTURIZERS COMPOSED B-GLUCANS IN TREATMENT OF VULVO-VAGINAL ATROPHY WITH POST-MENOPAUSAL WOMEN

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Objective: To investigate the efficacy and safety of vaginal moisturizers which composed with natural β -glucans on vulvo-vaginal atrophy (VVA) related vaginal dryness.

Methods: The prospective crossover study was conducted. Twenty patients were randomized to 1 of 2 treatment sequences, application vaginal moisturizers type 1 (composed of 0.6 % β -glucan only)-type 2 (composed of 0.6% β -glucan and 0.6% hyaluronic acid) or type 1-type 3 (composed of 0.6% β -glucan and extracts from *Sophora flavescens*, *Houttuynia Cordata* Extract, *Aloe barbadensis*). Each types of vaginal moisturizers was given for 5 days, separated by a 1-week washout interval. Efficacy was assessed by the vaginal pH, vaginal swab culture and patient self-reporting of improvement of VVA related symptoms questionnaire.

Results: Ten patients were treated with type 1 and 2 vaginal moisturizers and 10 patients treated with type 1 and 3 vaginal moisturizers. Their mean aged was 58.1±5.9 (range: 51-77). All patients complaint vaginal dryness and other frequent symptoms followed as dyspareunia (15/20, 75%), vaginal itching (8/20, 40%) and four odor (6/20, 30%). After treatment with type 1 and 2 vaginal moisturizers a significant improvement in vaginal dryness (p<0.001, both), vaginal itching (p=0.031, both) and dyspareunia (p<0.01 and p=0.031) was reported by the patients. Although type 3 vaginal moisturizers were effect in vaginal dryness (p=0.002) and dyspareunia (p=0.002), 5 of ten patients were dropped out due to irritative burning sense after application. The vaginal pH was significantly decreased after type 1, type2 and type 3 vaginal moisturizers. (p<0.001, p=0.005 and p=0.007) Eight patients recovered *Lactobacillus* on vaginal culture after treatment with type 1 vaginal moisturizers.

Conclusion: The vaginal moisturizers composed β -glucans was effective in VVA and associated symptoms and it appears to have probiotic activity on vaginal microbiota.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-04 Basic Science

PS-04-001

AGING INCREASES CONTRIBUTION OF ORAI CHANNELS TO CONTRACTILE TONE IN RAT AND HUMAN CORPUS CAVERNOSUM

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Objective: The contribution of calcium Orai channels to contractile responses in human corpus cavernosum and penile arteries has been proposed, especially in pathological conditions such as erectile dysfunction (ED). The aim of the present work was to evaluate the influence of aging on Orai channels contribution to cavernosal tissue contraction.

Methods: The effect of the Orai channel inhibitor, YM-58483 (YM) was evaluated on contractions induced by norepinephrine (NE) in corpus



cavernosum (CC) from young (3 months-old) and aged (20 months-old) rats. The effects of YM on endothelial relaxation and neurogenic contraction were also evaluated in tissues from aged rats. As well, the influence of YM on NE-induced contractions was determined in human corpus cavernosum (HCC) from organ donors (OD) without history of ED, which were divided into younger than 65 years (43.5±2.8 years, n=16) and older than 65 years (74.2±3.5 years, n=5). The expression of Orai channels in these HCCs was determined by Western blot.

Results: NE-induced contractions in CC from young rats were not significantly modified by YM (20 μ M) (133.1±3.1% vs. 127.9±10.2% of K⁺-induced contraction, respectively). In contrast, the significantly increased NE-induced contractions in aged rats were clearly inhibited by YM (252.4±22.5% vs. 171.9±7.2%, p<0.01). YM significantly reduced neurogenic contractions and improved endothelial relaxations in CC from aged rats. In HCC, NE-induced contractions were significantly enhanced in old subjects (176.7±17.5% vs. 130.9±9.4%, p<0.05). The treatment with YM only reduced contractile responses in HCC from old subjects, yielding

similar contractions to those exhibited by younger subjects ($103.8 \pm 11.6\%$ in younger vs. $108.1 \pm 10.6\%$ in older). Orai3 channel subtype was significantly overexpressed in HCC from older subjects.

Conclusion: Contribution of Orai channels to contractile tone in cavernosal tissue increases with aging and is paralleled by an increased expression of Orai3 channel. These Results highlight the potential role of Orai channels as a therapeutic target in ED.

Policy of full disclosure: Funded by Instituto de salud Carlos III (PI15/00674, PI15/01160, PI15/01696), Ministerio de Economía y Competitividad, Gobierno de España, and FEDER funds

PS-04-002

LONG-TERM LOW-INTENSITY ELECTROSTIMULATION OF INJURED CAVERNOSAL NERVE IMPROVES ERECTILE FUNCTION RECOVERY IN A RAT MODEL OF POSTPROSTATECTOMY ERECTILE DYSFUNCTION

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Objective: Radical prostatectomy often leads to neurogenic erectile dysfunction due to inevitable periprostatic nerve damage. It has been shown recently that low-frequency electrostimulation (ES) may accelerate and enhance peripheral nerve regeneration. However, the underlying mechanisms are not fully elucidated and cavernosal nerves (CN) regeneration by ES has never been investigated. Therefore, the aim of this study was to evaluate if local long-term ES can improve injured CN regeneration and restore erectile function (EF) in a well-established rat model of postprostatectomy erectile dysfunction.

Methods: Male Sprague-Dawley rats (300 to 350g) were anesthetized and the bilateral CN bundles were exposed and injured by a crush technique of 2x2mm using a hemostat clamp with a pressure of 2 clicks. A bipolar implantable electrode was placed on the injury site and low-intensity ES (3V intensity, 0.1ms pulse duration, 12Hz frequency) was applied or not (control group) for 1h per day during 7 days. Sham group had the nerve bundles exposed only. EF was assessed after one week by measuring the continuous intracavernosal pressure (ICP) in response to electrical stimulation using the same implanted electrodes. **Results:** Remarkably, 1h of low-intensity ES per day at the site of nerve injury significantly increased EF recovery after 7 days compared to control. One week of ES not only increased the maximal ICP above basal but also increased the normalized ICP area above basal in response to stimulation ($p=0.02$ for Max ICP at 10V stimulation, $p=0.04$ for ICP area at 10V stimulation, $n=3$, Fig. 1). **Conclusion:** These Results indicate a clear beneficial effect of low-intensity ES in EF recovery following nerve injury, representing a potential therapeutic tool to recover EF and minimize the side effects of radical prostatectomy, opening the way for a broader application to peripheral nerves regeneration in general.

Policy of full disclosure: None

PS-04-003

VARDENAFIL, TAMOXIFEN AND THEIR COMBINATION CAN PREVENT BUT NOT REVERSE TGF-BETA1-INDUCED MYOFIBROBLAST TRANSFORMATION OF TA-DERIVED CELLS

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Objective: Peyronie's disease (PD) is a fibrotic disorder with limited treatment that affects the penile tunica albuginea (TA), leading to pain,

deformities and erectile dysfunction. Our previous research revealed an anti-fibrotic effect of vardenafil and tamoxifen, with a synergistic effect when combined, preventing the transformation of TA-derived fibroblasts into myofibroblasts. This study aimed to investigate whether vardenafil and tamoxifen can reverse the transformation of myofibroblasts to fibroblasts.

Methods: TA-derived fibroblasts were exposed to TGF- β 1 to induce myofibroblast transformation. Pre-transformed cells were exposed to vardenafil and/or tamoxifen and stained for α -smooth muscle actin (α -SMA) using In-Cell ELISA (ICE). A modified ICE was used to measure collagen formation in pre-transformed cells exposed to the drugs. Fibroblast-populated collagen lattices (FPCLs) were used to measure contraction of pre-transformed cells exposed to various concentrations of the drugs. Expression of drug targets in untreated and TGF- β 1 treated cells was investigated.

Results: TGF- β 1 elicited myofibroblast transformation shown by increased α -SMA expression. Pre-transformed cells treated with vardenafil, tamoxifen or their combination did not show a decrease in α -SMA expression. Production of collagens I, III, V, as well as fibronectin was not reduced by vardenafil or tamoxifen in cells pre-transformed using TGF- β 1. FPCL contraction was reduced in TGF- β 1-pre-transformed cells treated with only tamoxifen or the drug combination, but not in vardenafil treated pre-transformed cells. TGF- β 1 treatment led to a significant reduction in mRNA and protein expression of PDE5A and oestrogen receptor beta, whilst oestrogen receptor alpha was not expressed in TA-derived cells.

Conclusion: Complementing the anti-fibrotic synergy in preventing myofibroblast transformation, the data presented here suggests that vardenafil, tamoxifen and their combination are not capable of reversing myofibroblast transformation, possibly due to downregulation of the drug targets, which underlines that treatment with these drugs should target patients in the early stages of PD. **Acknowledgement:** Funded by European Society of Sexual Medicine

Policy of full disclosure: None

PS-04-004

TRANSCRIPTOME-WIDE ANALYSIS OF PEYRONIE'S DISEASE PLAQUES USING RNA SEQUENCING UNCOVERS TARGETABLE SIGNALING PATHWAYS FOR MEDICAL THERAPY

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Objective: To characterise the transcriptomic signature of plaques from Peyronie's disease (PD) patients and compare it to normal tunica albuginea (TA) using RNA sequencing (RNAseq) and network analysis. PD is an acquired fibrotic process affecting the TA of the penis. The development of fibrotic plaques can lead to penile curvature/deformities, shortening and erectile dysfunction. Medical treatments are lacking due to limited understanding of disease pathophysiology. Elucidation of molecular pathways and cell types involved could lead to the development of novel disease models and conservative therapeutics.

Methods: We collected surgical TA samples from 6 PD patients and 6 control patients where RNAseq was performed, followed by gene ontology, gene set enrichment (GSEA) and transcriptional regulation (iRegulon) analysis. Moreover, biological validation of our hypothesis was provided through RT-qPCR and immunohistochemistry in patient samples.

Results: This is the first report using human samples for transcriptome-wide analysis of genital tract fibrosis. Differential gene expression identified 819 over- and 475 underexpressed genes in PD patients. Gene ontology, GSEA and iRegulon reveal an active inflammation maintained by the most significantly enriched pathways; NF- κ B (TNF α and Toll-like receptors

(TLR)-activated) and JAK/STAT-signalling (through interleukins/interferons), suggesting an important macrophage-related signature. Immunohistochemical staining for macrophages (CD68) corroborated these findings. This study is limited by the lack of in vivo validation.

Conclusion: Our analysis suggests that, even in an established PD-plaque, inflammatory pathways are still active. We show for the first time that TLR-activation could be an important pathway in PD-pathophysiology. Additionally, we suggest that this process is potentially maintained through macrophages. Both could lead to development of novel druggable targets and more representative disease models.

Policy of full disclosure: None

PS-04-005

LOW INTENSITY SHOCKWAVE THERAPY (LIST) MAY PROMOTE ANGIOGENESIS AND ALTER A1/A2 ADRENERGIC RECEPTORS RATIO IN THE ERECTILE TISSUE OF NATURALLY AGED RATS

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Objective: To investigate the effects of LiST on erectile tissue of healthy, naturally aged rats.

Methods: Twelve naturally aged male Wistar albino rats (19-21 months) were randomized into two groups: a control group (OC, n=6) and a LiST treatment group (OSWT, n=6). Another control group of young rats (8 weeks) (n=6) was also used (YC). Each rat in OSWT group received 300 shockwaves with an energy flux density of 0.09mJ/mm² at 2 Hz, at the middle of the penile shaft. Sessions were repeated three times/week for two weeks, followed by a two-week washout period. Penile tissues were harvested and analysed with real time reverse transcription polymerase chain reaction (qRT-PCR) and immunohistochemical analysis (IHC). Outcomes: The mRNA expressions of vascular endothelial growth factor (VEGF), endothelial nitric oxide synthase (eNOS), nerve growth factor (NGF) and neuronal NOS (nNOS), as well as α 1 and α 2-adrenergic receptors (α 1AR, α 2AR). Further IHC to evaluate the protein expression for the statistical significant mRNA expressions was performed.

Results: The mRNA expressions of VEGF, eNOS and α 2AR/ α 1AR ratio were increased after LiST (p=0.039, p=0.008 and p=0.006 respectively). The expression of NGF was not affected and an observed increase in nNOS didn't reach statistical significance (p=0.093). The increase of VEGF, eNOS as well as α 2AR was confirmed in IHC, although for eNOS and α 2AR didn't reach statistical significance (p=0.092 and p=0.096 respectively).

Conclusion: The increase of VEGF and eNOS seem to play key role in the mechanism of action of LiST, apparently by inducing angiogenesis. For the first time an altered expression of α 1 and α 2 adrenergic receptors with increased α 2AR/ α 1AR ratio, indicating a probable decrease in sympathetic activity, was observed.

Policy of full disclosure: None

PS-04-006

IMMUNOMODULATORY EFFECTS OF DIHYDROTESTOSTERONE (DHT) IN RAT VAGINAL SMOOTH MUSCLE CELLS

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Objective: Androgens, in particular Dihydrotestosterone (DHT), show immunomodulatory protective effects in experimental models of chronic

inflammation. We aimed to evaluate the possible immunomodulatory effects of DHT in smooth muscle cells (SMCs) isolated from vagina of mature intact Sprague-Dawley rats.

Methods: SMCs derived from distal vagina were isolated and characterized with α -smooth muscle actin (α -SMA) and myosin heavy chain 11 (MHCII). Then they were left untreated (control) or treated in vitro with different stimuli: Lipopolysaccharides (LPS; 100 ng/ml), the strongest immunogenic ligand for TLR; DHT (30nM); and DHT+LPS (30nM, 100ng/ml) for 24 hours. With Real-Time Quantitative Reverse Transcriptase Polymerase Chain Reaction, we evaluated mRNA expression of the main pro-inflammatory markers: interleukin-6 (IL-6), IL-1b, chemokine (C-X-C motif) ligand 1 (CXCL1), cyclooxygenase-2 (COX-2), CD4, RAR-related orphan receptor C (RORC), chemokine for recruitment of macrophages [monocyte chemoattractant protein 1 (MCP1) and membrane receptors which mediate the cell inflammatory response, such as Toll-Like Receptors (TLRs). In addition, immunofluorescence studies were performed to analyze the nuclear translocation of NF- κ B, an important transcriptional mediator of the inflammatory response.

Results: Co-treatment with DHT inhibited LPS-induced inflammatory response in distal vagina SMCs, with the most pronounced effects on COX2, IL1b, IL6, CXCL1, RORC. LPS also induced up-regulation of the mRNA expression of the receptors through which it exercises its function (TLR2, TLR4), and this effect was reduced by DHT. In addition, LPS induced a significant nuclear translocation of NF- κ B, which was counteracted by DHT. Conclusion: In this model of SMCs derived from rat distal vagina, DHT treatment inhibits the RNA expression of genes involved in the inflammatory response, as well as NF- κ B nuclear translocation induced by LPS stimulation. Our data support the possible therapeutic role of androgens in chronic pain syndromes involving female genito-urinary tissues in which inflammation is known to play a pivotal role.

Policy of full disclosure: None

PS-04-007

THE BENEFICIAL EFFECT OF A SELECTIVE IFUNNY CHANNELS BLOCKER, IVABRADINE ON ERECTILE DYSFUNCTION IN DIABETIC RATS

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Objective: A high heart rate is an independent risk factor for the worsening of erectile dysfunction (ED), which is a major health issue in diabetic patients. The Ifunny (If) or hyperpolarization-activated cyclic nucleotide-gated (HCN) channels are involved in synaptic transmission and neuronal excitability under physiological conditions. Corlanor (ivabradine) is selective HCN-gated channel blocker in the sinoatrial node. This study is focused on the possible beneficial effect of intracavernosal injection of ivabradine, on ED in streptozotocin-induced diabetic rats.

Methods: Adult Sprague-Dawley (n=20) rats were equally divided into two groups: Control and diabetes, which was induced by a single intraperitoneal injection of 45 mg/kg of streptozotocin. In vivo erectile responses were also repeated after intracavernosal injection of ivabradine (0.45 mg/kg) in anesthetized rats. Ivabradine relaxant responses were assessed in control rat corpus cavernosum (CC) strips after several inhibitors. The relaxant responses of CC strips were evaluated in the presence or absence of ivabradine (10 μ M).

Results: Diabetic rats demonstrated significantly reduced ratio of intracavernosal pressure to mean arterial pressure (0.18 \pm 0.02; P< 0.001) and total intracavernosal pressure (2058 \pm 199 mmHg; P<0.01), which were restored by intracavernosal administration of ivabradine (0.68 \pm 0.05; 3691 \pm 116 mmHg). Ivabradine causes a relaxant effect on rat CC tissues independent on the nitric oxide-cyclic guanosine monophosphate system, which may affect L-type Ca²⁺, Ca²⁺-activated K⁺ and ATP-sensitive K⁺ channels. No difference in the ivabradine-related relaxation response was observed between groups. In in vitro studies, the maximum nitregeric relaxation response to electrical field stimulation in diabetic CC (34.4 \pm 2.8, P<0.001) was enhanced after the presence of ivabradine (66.6 \pm 3.4).

Ivabradine increased acetylcholine (100 μ M), sodium nitroprusside (10nM) and sildenafil (1 μ M)-induced relaxation in diabetic CC.

Conclusion: Our Results firstly indicated that the beneficial effect of intracavernosal administration of ivabradine in the full recovery of erectile function and completely improved CC endothelial and neurogenic relaxation in diabetic rats. These data may support further clinical and preclinical studies using combinations of ivabradine with phosphodiesterase type 5 inhibitors for ED.

Policy of full disclosure: None

PS-04-008

STUDY OF THE ANTI-INFLAMMATORY EFFECTS OF DIHYDROTESTOSTERONE IN HUMAN VAGINAL SMOOTH MUSCLE CELLS



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Objective: Inflammation is hypothesized to play an important role in several diseases associated to the female genital tract. Dihydrotestosterone (DHT) has shown immunomodulatory protective effects in experimental models of chronic inflammation. We aimed to evaluate the anti-inflammatory effects of DHT in smooth muscle cells (hSMCs) isolated from human vagina biopsies and to investigate the tissue expression of steroidogenesis enzymes, in order to evaluate the hormone on-site role.

Methods: hSMCs, characterized with α -smooth muscle actin and myosin heavy chain 11, were stimulated with the Toll-Like Receptors (TLRs) agonist lipopolysaccharide (LPS), with or without DHT (30 nM), for 24 h in order to analysis pro-inflammatory genes expression. Immunofluorescence studies were performed to analyze the LPS-induced NF-kB translocation, with or without DHT (30 nM) or 8Br-cGMP (10 μ M). In the flow cytometry studies hSMC were stimulated with INF γ 1000 UI/ml, with or without DHT (30 nM) for 48h. mRNA expression in hSMCs and in human tissues was evaluated by RT-PCR.

Results: LPS significantly increased the expression of several pro-inflammatory genes and induced NF-kB nuclear translocation, with DHT and 8Br-cGMP treatments counteracting these effects. DHT reverted the HLA-DR expression up-regulated by INF γ . Finally, the genes linked to the synthesis of androgenic precursors were expressed in vagina tissues. In particular, genes related to DHT synthesis were expressed significantly higher compared to ovary.

Conclusion: DHT treatment inhibits the RNA expression of several pro-inflammatory genes as well as LPS-induced NF-kB nuclear translocation. A similar effect induced by 8Br-cGMP suggests an involvement by the NO pathway. The counteracting effects of DHT on the INF γ -induced HLA-DR expression, suggested an immunomodulatory profile similar to APC (antigen presenting cells). Finally, the high expression of androgen synthesis-related genes in vagina tissues suggests an on-site production. Our data support the possible therapeutic role of androgens in genital trait disorders in women.

Policy of full disclosure: None

PS-04-009

THE LUMBAR SPINAL CORD NEURONS PUTATIVELY INVOLVED IN EJACULATION ARE SEXUALLY DIMORPHIC ALREADY IN PRE-PUBERTAL MICE



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Objective: The expression of ejaculation is thought to require a well-defined population of lumbar spino-thalamic (LSt) neurons which co-express several

neuropeptides, including galanin. In adult rats and humans LSt neurons are significantly more numerous in males than in females. Here we investigated whether this sexual dimorphism is established already before puberty.

Methods: A transgenic mouse line expressing green fluorescent protein driven by the galanin promoter, was used to directly visualize galanergic neurons and fibers in the postnatal spinal cord (P4). Transverse sections of the cord were made to map the segmental distribution of galanin expression. Wholmount spinal cords were fixed with paraformaldehyde and cleared with a fructose-based protocol to view and count entire neuron pools, comparing male vs. female siblings from the same litter. Image stacks were acquired with a brightfield fluorescence microscope, deconvolved and analyzed in ImageJ software.

Results: Fluorescent reporter expression in the early postnatal mouse largely matched what previously described for galanin using immunohistochemistry in adult tissue. A notable exception was evidence for galanin expression in motoneurons, a phenomenon known to occur transiently during ontogenesis in rat and human. Crucially, brightly fluorescent neurons were present in the expected location of the LSt population (the lumbar enlargement, dorso-laterally of the ependymal canal) in both males and females. Moreover, in each pair of siblings (n=6) they were more numerous in the male than in the female (by 22 \pm 4% mean \pm sd; p=0.03 Wilcoxon paired test; median=1029 in males, 855 in females).

Conclusion: Sexual dimorphism is thus present in the putative 'spinal generator of ejaculation' already in the early postnatal period, much earlier than previously examined. The transient sex hormone surge, occurring perinatally in rodents, may play a key organizational role. Whether or not sexual dimorphism is restricted to neurons involved in sexual function, will be ascertained.

Policy of full disclosure: None

PS-04-010

EFFECTS OF PHYSICAL EXERCISE ON METABOLIC SYNDROME-ASSOCIATED HYPOGONADOTROPIC HYPOGONADISM AND ERECTILE DYSFUNCTION



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Objective: Metabolic syndrome (MetS) clusters cardiovascular and metabolic risk factors, along with hypogonadism (HG) and erectile dysfunction. Lifestyle modifications, including physical exercise (PhyEx), are well-known treatments for this condition. We now report studies on the effect of PhyEx on hypothalamus-pituitary-testis axis and penile relaxation.

Methods: In this study, we used a non-genomic animal MetS model, previously established in rabbits fed a high fat diet (HFD). Rabbits fed a regular diet (RD) were used as controls. A subset of both groups was trained on a treadmill. In vitro contractility studies were performed to evaluate responsiveness to acetylcholine and electrical field stimulation in corpora cavernosa (CC) strips. Tissue specimens of CC, testis and hypothalamus were obtained at sacrifice and studied by immunohistochemistry and RT-qPCR.

Results: HFD rabbits showed typical MetS features including HG (reduced testosterone, T, and LH) and impairment of erectile function. PhyEx in HFD rabbits completely restored plasma T and LH and the penile alterations. At testicular and hypothalamic levels, an HFD-induced inflammatory status was accompanied by reduced T synthesis and GnRH immunopositivity, respectively. In the testis, PhyEx normalized HFD-related macrophage infiltration and pro-inflammatory markers expression, while increasing the expression of steroidogenic enzymes and T synthesis. In the hypothalamus, PhyEx normalized HFD-induced gene expression changes related to inflammation and glucose metabolism, restored GnRH expression, particularly doubling mRNA levels, and regulated expression of

molecules related to GnRH release (kisspeptin, dynorphin). Concerning MetS components, PhyEx significantly reduced circulating cholesterol and visceral fat. In multivariate analyses, cholesterol levels resulted the main determinant for MetS-related alterations in penile, testicular and hypothalamic districts.

Conclusion: In conclusion, our Results show that PhyEx may rescue erectile function, exert anti-inflammatory effects on hypothalamus and testis, and increase LH levels and T production, thus supporting a primary role for lifestyle modification to combat MetS-associated HG and ED.

Policy of full disclosure: None

PS-05 Hormones and medical treatment

PS-05-002

COLLAGENASE CLOSTRIDIUM HISTOLYTICUM INJECTIONS FOR PEYRONIE'S DISEASE - OUR EXPERIENCE, OUTCOMES AND PREDICTIVE FACTORS FOR 89 PATIENTS

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Objective: To evaluate the efficacy, safety and predictive factors of collagenase clostridium histolyticum (CCH) in the treatment of Peyronie's disease (PD) using the modified treatment protocol.

Methods: A prospective study of 89 men with PD that completed at least 1 course (3 injections) of CCH treatment at a single centre. The majority (77.5%) received 1 course of treatment, with 16.9%(n=15) and 5.6%(n=5) completing 2 or 3 courses respectively. The angle of curvature assessment after PGE1 injection, the International Index of Erectile Function (IIEF), Peyronie's Disease Questionnaire (PDQ) and Global Assessment (GAPD) were completed at baseline and 4 weeks after the last injection of each course. Co-morbidities and risk factors for PD were recorded at baseline. The range of curvature improvement (RI) was assessed as improvement<14°; 15°-20°; and >21°.

Results: The baseline curvature was 54±17.3°. There was a mean improvement following 1 treatment course of 31°(17±10.4°). Of those men that opted for a second treatment course there was a 36% improvement from baseline (23.3±10°). After a third course of CCH treatment there was a 52.3% improvement from baseline (35 ± 9.4°). There was significant improvement in IIEF and PDQ domains. CCH was well tolerated with only one patient experiencing significant side effects (penile fracture). Overall 11%(n=10) patients experienced local and transient mild side effects. There was no association between the number of treatment courses and severe side effects. Following treatment with CCH, 9%(8/89) of the men opted for surgical correction. Men with a greater curvature(>70;n=22) responded significantly better to CCH than men with minor curvature (<45;n=36). Patients with curvature<45° seemed to have improvement<14°(p<0.0001) and patients with curvatures>70° to have improvement>20°(p=0.02). Men that had PD for more than 12 months (n=46) responded significantly better to CCH and were more satisfied regarding the treatment than men with PD for less than 12 months (n=41). Twenty out of 46(43.5%) patient affected by PD for more than 12 months had a improvement>21°vs7/41(17%) men with PD for less than 12 months(p=0.007). Micro-calcification on US(p=0.8) and point of injection(p=0.9) appeared not to be correlated to the outcome.

Conclusion: The modified protocol of CCH is a safe and effective non-surgical treatment option for PD. There is a sustained improvement from baseline penile curvature with a second and third course of CCH treatment. Predictive factors include magnitude of curvature and having PD for more than 1 year.

Policy of full disclosure: None



PS-05-003

THE ROLE OF NUTRITIONAL INTERVENTION IN THE TREATMENT OF MALE HYPOGONADISM SECONDARY TO OBESITY

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Objective: The aim of the study was to evaluate the effects of nutritional intervention on body composition and hormonal profile in a group of obese patients after a weight loss of 10%. In particular, the study focused on the evaluation of aromatase activity, calculated as the ratio between total testosterone and estradiol.

Methods: 28 patients aged between 18 and 65 were enrolled, fat percentage was > 30% and it was estimated with total body densitometry. Body composition (anthropometry, circumferences, DEXA), hormonal profile, cardiovascular risk indices and the HOMA index were evaluated. The patients underwent two tests: Yale Food Addiction Scale (YFAS) and Aging Male Symptoms (AMS), respectively for the assessment of carbohydrate dependence and symptoms related to hypogonadism. The nutritional treatment was based on hypocaloric, high-protein diet (1.5 g/kg ideal body weight/day). Diet energy gap was between 170–250 kcal/day.

Results: After a mean time of 6 months and a mean weight loss of 10% from baseline, a significant increase in serum total testosterone levels (405.3 ± 124.8 vs 298.2 ± 81.4 ng / dl, p = 0.002) and a significant reduction of estradiol (37.8 ± 16.2 vs 46.4 ± 12.1 pg / ml, p = 0.049) were observed. There was also a significant reduction in the percentage of total (36.1 ± 4.7 vs 39.8 ± 6.9, p = 0.0001) and segmental fat mass (android fat mass 46.3 ± 6.5% vs 52.1 ± 6.3% P = 0.0012; gynoid fat mass 36.4 ± 5.9 % vs 39.1 ± 6.1% p = 0.0001). The lean mass remained unchanged. The reduction in aromatase activity (expressed as the total testosterone / estradiol ratio) was statistically significant (110.9 ± 52.8 vs 69.1 ± 34.1, p = 0.003). Food addiction has not improved after the nutritional intervention and probiotic supplementation.

Conclusion: The study has demonstrated that lifestyle change (diet therapy and physical activity) plays a key role in the management of hypogonadism secondary to obesity.

Disclosure: None

PS-05-004

DISCONTINUATION OF DAPOXETINE TREATMENT IN PATIENTS WITH PREMATURE EJACULATION: A 2-YEAR PROSPECTIVE OBSERVATIONAL STUDY

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Objective: Although dapoxetine is the only oral pharmacological agent approved for the treatment of premature ejaculation (PE) and is very effective, its discontinuation rate is high compared to PDE5 inhibitors in



patients with erectile dysfunction (ED). This study assessed the discontinuation rate of dapoxetine treatment in patients with PE and the reasons for discontinuation a clinical setting.

Methods: The study enrolled 182 consecutive patients (mean age 38.2 (range 19–63) years). The PE type (life-long or acquired), self-estimated intravaginal ejaculation latency time (IELT), International Index of Erectile Function-Erectile Function Domain (IIEF-EF) questionnaire, and medical history were checked in all patients. The patients were evaluated 1, 3, 6, 12, and 24 months after initiating therapy regarding the treatment status and the reasons for treatment discontinuation in the case of discontinuation. We compared the discontinuation rates with various parameters and the time interval.

Results: Of the patients, 9.9% were continuing treatment after 2 years. The discontinuation rate at 1, 3, 6, 12, and 24 months was 26.4, 35.2, 17.6, 8.2, and 2.7%, respectively. Cumulatively, 79.1% of the patients discontinued the treatment within 6 months. After 12 months, however, the discontinuation rate dropped sharply. The reasons for discontinuation were cost (29.9%), disappointment that PE is not a curable disease and dapoxetine was needed whenever he had sex (25%), side effects (11.6%), low efficacy (9.8%), to seek other treatment options (5.5%), and unknown (18.3%). Patients with acquired PE (vs. life-long), IELT >2 min before treatment, older than 50 years, taking PDE-5 inhibitors, and IIEF-EF <26 tended to discontinue early and had high drop-out rates.

Conclusion: Only 9.9% patients continued the treatment after 24 months, while 79.1% discontinued within 6 months. The main reasons for discontinuation were not related to its side effects or low efficacy. These Results indicate that a more comprehensive treatment strategy is needed for managing PE patients.

Policy of full disclosure: None

PS-05-005

LOW-INTENSITY SHOCKWAVE THERAPY FOR ERECTILE DYSFUNCTION: 6 MONTHS FOLLOW-UP RESULTS OF A RANDOMIZED CLINICAL TRIAL ASSESSING THE IMPACT OF ENERGY FLUX DENSITY AND FREQUENCY OF SESSIONS

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Objective: The impact of energy flux density (EFD) used on Low-intensity Shockwave Therapy (LiST) for erectile dysfunction (ED) has not been explored. Furthermore, safety and efficacy of sessions frequency has not been established. Our aim was to compare EFD of 0.05 vs 0.096 mJ/mm² regarding efficacy and safety of 12 treatment sessions within a 6-week period, when applied twice or 3 times per week.

Methods: Patients with vasculogenic ED, PDE5 inhibitors responders, were randomized into 4 groups, to receive 12 LiST sessions, using Dornier Aries2 shockwave machine: Group A=2 sessions/week with EFD 0.05mJ/mm²; Group B=3 sessions/week with EFD 0.05mJ/mm²; Group C=2 sessions/week with EFD 0.096mJ/mm²; Group D=3 sessions/week with EFD 0.096mJ/mm². Follow up (FU) period was 6 months. Erectile function was assessed by International Index for Erectile Function – Erectile Function domain (IIEF-EF), Minimally Clinical Important Differences (MCID), Sexual Encounter Profile (SEP) and triplex ultrasonography parameters.

Results: All 4 groups improved in IIEF-EF, SEP3 “Yes” response at 6-month FU visit compared to baseline ($p < 0.001$). MCID at 6-month FU visit were achieved in 82.6%, 77.3%, 87%, 81% in Groups A(n=23), B(n=22), C(n=23), D (n=21) respectively. Mean PSV (cm/s) at baseline vs 3m-FU visit were 30.32 vs 34.67 for Group A, 30.02 vs 35.02 for Group B, 30.2 vs 36.02, for Group C, 29.43 vs 34.3 for Group D ($p < 0.01$). There was no statistically significant difference in the change of all outcome measures from baseline to 6 month FU visit between different frequency or EFD groups (Picture 1). No treatment-related side-effects were reported.

Conclusion: The frequency per week of LiST does not have any impact in the efficacy and safety when delivered within 6 weeks without a 3-week break period. Higher EFD (0.096 mJ/mm² vs. 0.05 mJ/mm²) is associated with a trend for improved efficacy without any safety concerns.

Policy of full disclosure: None

PS-05-006

HOW UNCOMMON PENILE CURVATURES INFLUENCE CLINICAL OUTCOMES IN PATIENTS WITH PEYRONIE'S DISEASE RECEIVING COLLAGENASE CLOSTRIDIUM HISTOLYTICUM THERAPY?

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Objective: Patients affected by Peyronie's disease (PD) benefit most from therapy with Collagenase Clostridium Histolyticum (CCH). However, clinical Results in patients with uncommon penile curvature (PC) have been never reported.

Methods: We retrospectively collected data of patients affected by ventrolateral PC secondary to PD. Patients received pharmacologically induced artificial erection test (intra-cavernous injection) to assess the degree of penile curvature (PC) at baseline and after the completion of the treatment. All patients underwent a modified treatment protocol, which consisted of 3 intralesional injections of 0.9 mg of CCH performed at 4-week intervals at the point of maximum curvature. After each injection, patients were instructed to follow a strict routine involving daily penile stretching in the intervals between injections. As previous reported, success of therapy was defined as a decrease in PC of $\geq 20^\circ$ from baseline (Cocci et al. BJU Int 2018).

Results: A total of 65 patients were included in the analysis. Median age was 59.0 years (IQR 53.00–63.0), median curvature was 40.0° (IQR 30.0–45.0) and median duration of the disease was 12.0 years (IQR 6.5–24.0). 53 patients had ventral PC (81.54%), 7 has hourglass PC (10.77%) and 5 has shortening PC (7.69%). Median changes of PC were -20.0 (IQR -20.0 , -10.0 ; $p < 0.01$) in ventral PC, -20.0 (IQR -20.0 , 0.0 ; $p < 0.01$) in hourglass and -15.0 (IQR -15.0 , -15.0 ; $p < 0.01$). At one-way ANOVA test, we did not find significant differences between groups. The rate of PC success was 56.6% (30/23) in ventral PC, 57.14% (4/3) in hourglass and 20% (1/4) ($p = 0.29$). Treatment success was not influenced by characteristics of curvature (OR = 0.66; $p = 0.20$).

Conclusion: CCH injection treatment has proven to be effective in the improvement of PC in case of uncommon curvatures, including ventrolateral, shortening and hourglass deformities.

Policy of full disclosure: None

PS-05-007

SAFETY AND EFFICACY OF INTRA-CAVERNOSAL BOTULINUM TOXIN INJECTION IN THE TREATMENT OF PATIENTS WITH SEVERE ERECTILE DYSFUNCTION

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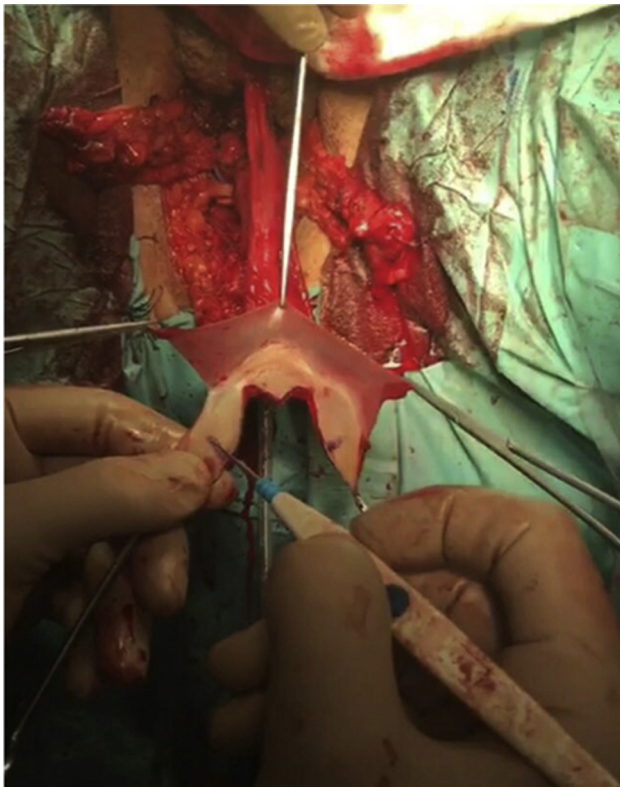
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Objective: To evaluate the safety and efficacy of Botulinum toxin in the treatment of severe erectile dysfunction (ED).

Methods: A prospective, double-blind, randomised study of 70 patients with ED, not responding to PDE5i and ICI. Patients were randomized into treatment and control with 35 patients in each group. The treatment group received a single intra-cavernosal injection of 100 units of Botulinum toxin (BTX) A. The control group received an intra-cavernosal injection of 1 ml of saline (0.9% NaCl). Assessment for both groups was done by penile duplex and erection hardness score (EHS) at baseline and 2 weeks after treatment.

The SHIM questionnaire, the Sexual Encounter Profile (SEP Questions 2 and 3) and the Global Assessment Question (GAQ1&2)) were completed at baseline, 6 and 12 weeks after treatment respectively.

Results: In the treatment but not in the control group, there was a statistically-significant ($p < 0.001$) improvement in each of: the mean peak systolic velocity from 35(12) cm/sec to 46 (13) cm/sec; the end diastolic velocity from 2 (3.5) cm/sec to 1.7 (3.4) cm/sec; and the mean EHS from 2.34 (0.59) to 2.89 (0.76). There was a statistically-significant improvement in the mean SHIM score (from 5.4 (1.67) to 9.97 (5.52), $p < 0.001$) in the treatment group but not in the control group; 18 patients answered "yes" to SEP1 and 3 patients answered "yes" to SEP2 in the treatment group versus 1 patient answering "yes" to SEP1 in the control group; and 22 and 14 patients answered "yes" to GAQ1 and GAQ2 respectively versus none in the control group. There were no local or systemic adverse events. The improvement was maintained up to the 12-week follow up in the majority of patients.



Conclusion: Intra-cavernosal BTX-A may turn PDE5i non-responders and ICI failures to responders and lead to a reduction in the number of patients requiring penile implant surgery.

Policy of full disclosure: None

PS-05-008

RECENT TRENDS IN INCIDENCE OF RECORDED ERECTILE DYSFUNCTION, PHOSPHODIESTERASE TYPE 5 INHIBITOR PRESCRIPTIONS, HYPOGONADISM AND TESTOSTERONE REPLACEMENT THERAPY PRESCRIPTIONS IN TYPE 2 DIABETIC PATIENTS IN A PRIMARY CARE SETTING

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Objective: Erectile dysfunction (ED) and testosterone deficiency (TD) are common, interlinked complications for Type 2 diabetes mellitus (T2DM) patients, and predictors of cardiovascular disease. International guidelines recommend that men with T2DM are assessed and treated for ED/TD, which was included in the UK GP Quality and Outcomes Framework (QOF) from 2013-14 only. This study explores the effects of QOF on ED/TD diagnoses and management in T2DM patients in UK primary care.

Methods: The study population was a cohort of males (aged ≥ 18 years) diagnosed with T2DM and contributing to UK primary care electronic health records from 1999-2016. Adjusted incidence rate ratios (IRRs) were estimated using multivariable Poisson regression.

Results: 141,310 adult males (mean age 60 years) with T2DM were included. During follow-up, 62,698 (44%) had a recorded ED assessment, 25,198 (18%) an ED diagnosis and 21,069 (15%) received a phosphodiesterase-5 inhibitor (PDE5i) prescription. ED assessments increased from 7.6 per 1000 PYAR in 2012 (95% CI: 7.0-8.3) to 620 per 1000 PYAR in 2013 (95% CI: 614-626) when included into QOF but dropped to 59.4 per 1000 PYAR (95% CI: 56-63) in 2016. Compared with 2012, the adjusted incidence of recorded ED diagnoses and PDE5i prescriptions doubled in 2013 (IRR 2.0; 95% CI: 1.8-2.1) before falling to below pre-QoF levels in 2016 (IRR 0.89; 95% CI: 0.82-0.97). Of 1187 diabetic men newly diagnosed with ED or receiving a PDE5i prescription in 2015, 213 (18%) had at least one testosterone measurement and of these 45 (21%) met a criteria for hypogonadism (serum testosterone < 8 nmol/l). Nine (20%) of the latter subsequently received testosterone replacement therapy.

Conclusion: Our data suggests that in order to improve diagnosis/management of ED/TD in T2DM patients and thereby (cardiovascular) health and quality of life, incorporation of guidelines into a primary care framework and/or financial incentives may be required alongside GP education.

Policy of full disclosure: None

PS-05-009

BOTH COMORBIDITY BURDEN AND LOW TESTOSTERONE CAN EXPLAIN SYMPTOMS AND SIGN OF ANDROGEN DEFICIENCY IN MEN CONSULTING FOR SEXUAL DYSFUNCTION

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Objective: Low testosterone (T) is frequent in men with chronic illnesses. The clinical features of hypogonadism overlap with those of chronic diseases. The aim of the study is to assess the weight of chronic diseases and T levels on sexual and psychological conditions and on major adverse cardiovascular events (MACE) mortality.

Methods: A consecutive series of 3655 men (mean age 52.1 ± 13.0 years) consulting for sexual dysfunction was studied. Several clinical and biochemical parameters were collected, including the structured interview ANDROTEST, for the assessment of hypogonadal symptoms. Penile color Doppler ultrasound (PCDU) was also performed. Based on the medications taken, the Chronic Disease Score (CDS, a widely used index of comorbidity burden) was calculated. For a subset of 1687 men, information of MACE mortality was collected (follow-up of 4.3 ± 2.6 years).

Results: Higher CDS was associated with lower total and free T, lower testicular volume and higher FSH. No associations were found between CDS and LH. Higher CDS was associated with higher ANDROTEST score. When introducing CDS and total T (TT) in multivariable models also adjusted for age, severe erectile dysfunction and impaired morning erections were associated with both CDS ($\beta = 0.17$ and 0.10 , respectively, both $p < 0.0001$) and TT ($\beta = -0.64$ and -0.04 , respectively, both $p < 0.05$). Similar results were obtained for PCDU parameters. Somatized anxiety was independently associated with both CDS and TT ($\beta = 0.09$ and -0.04 , respectively, both $p < 0.05$), whereas phobic anxiety was associated with only CDS ($\beta = 0.08$, $p < 0.0001$) and

depression with only TT ($\beta=-0.04, p<0.05$). When considering MACE mortality, in a Cox model adjusted for age, TT<8 nmol/L - but not CDS - was a significant predictor (HR=5.6[1.5-20.6], $p=0.01$).

Conclusion: Chronical illnesses are associated with an overt hypogonadism. Both chronic diseases and low T can be involved in determining sexual and psychological symptoms present in subjects complaining for sexual dysfunction. This should be taken into account in the diagnostic workup for hypogonadism.

Policy of full disclosure: None

PS-05-010

EFFECTS OF DAILY TADALAFIL 5MG ADMINISTRATION ON POST MICTURITION DRIBBLING (PMD) IN MEN WITH LOWER URINARY TRACT SYMPTOMS: A PROSPECTIVE, MULTICENTER, DOUBLE-BLIND, PLACEBO-CONTROLLED, RANDOMIZED CLINICAL STUDY

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Objective: Although post-micturition dribbling (PMD) is a very uncomfortable symptom of lower urinary tract symptoms (LUTS) but it tends to be underestimated in the clinical field. It has a different pathophysiology than LUTS and its treatment is also different from the conventional one. As part of senile change, decreased volume of penile corpus cavernosum and associated dilation of the bulbous urethra occurs, these are thought to be associated with symptoms of PMD. So we investigated the effect of daily dosing of 5 mg tadalafil on PMD.

Methods: From Nov 2017 to Aug 2018, patients aged 20 to 70 years with IPSS score of 8 or higher and had PMD symptoms were included. In total, 102 patients were enrolled from 3 hospitals participated in this study. Eligible patients were randomly assigned to the tadalafil 5mg group or tadalafil placebo group. Primary endpoint was the changes in PMD symptoms that were evaluated through the "Hallym Post Micturition Dribbling Questionnaire (HPMDQ)," which was designed for this study. IPSS, IIEF, PEDT, PEP, IELT questionnaire were compared among groups at 4 and 12 weeks.

Results: There were no differences in the baseline characteristics among 2 groups. After 12 weeks of treatment, HPMDQ score was improved to 3.5 ± 1.4 compared to 5.7 ± 2.3 for initial score in the tadalafil group ($p<0.05$). In the placebo group, initial HPMDQ score was 5.2 ± 2.6 and after 12 weeks of treatment, score was improved to 4.1 ± 2.3 . Compared with the reduction of HPMDQ by 2 points or more, there was a significant difference of 71% in the tadalafil group and 18% in the placebo group ($p<0.001$). Tadalafil group also significantly improved the EF domain score compared to placebo group ($p<0.01$), but in the IPSS score, there was no significant difference between 2 groups ($p>0.05$). No patients experienced any serious adverse effects in any of groups.

Conclusion: We investigated the effects of tadalafil 5mg on PMD in men. Daily administration of tadalafil 5mg seems to be one of the breakthrough options in the treatment of PMD.

Policy of full disclosure: None

PS-05-011

THE MULTIMODAL TREATMENT FOR ACUTE PHASE PEYRONIE DISEASE

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Objective: to present our experience with multimodal therapy for Peyronie Disease

Methods: Retrospective data were collected since 2008 to 2017. The following features were evaluated at baseline and after treatment: age, duration of disease, erectile function (EF), erected penile curvature (EPC), stretched penile length (SPL). All patients were offered the same protocol including: 12 intralesional verapamil injections (IVIs); Oral therapy (OT): L-arginine 2 grams once and pentoxifylline 400 mg three times a day for 6 months; penile traction therapy. The adherence to each of the three component of multimodal treatment was evaluated.

Results: 177 individuals were considered. Depending on the grade of adherence our survey was divided into three groups. Group one: patients who only completed OT; Group two: men who accomplished OT and IVIs; Group three: patients who completed the entire protocol. 76, 45 and 56 men were assigned to group one, two and three respectively. The mean age at the diagnosis was $59 (\pm 8.4)$, $59.1 (\pm 5.9)$ and $54.2 (\pm 4.8)$ years, while the mean duration of the disease was $6.3 (\pm 3.4)$, $4.8 (\pm 2.9)$ and $3.9 (\pm 3.1)$ months in group one, two and three. The EPC before and after treatment was $24.2^\circ (\pm 9)$ and $23.7^\circ (\pm 8.9)$ in group one ($p<0.36$); $25.4^\circ (\pm 16.8)$ and $24.1^\circ (\pm 13.6)$ in group two ($p<0.34$); $34.3^\circ (\pm 17.9)$ and $26.1^\circ (\pm 17.2)$ in group three ($p<0.001$).

Conclusion: OT alone was successful to block the progression of the disease. The add of IVIs to oral therapy brought only mild improvements. The complete protocol significantly reduced EPC and improved EF.

Policy of full disclosure: None

PS-05-012

A COMPARISON OF THE EFFICACY AND SAFETY BETWEEN HYALURONIC ACID AND POLYLACTIC ACID FILLER INJECTION IN PENILE AUGMENTATION: A MULTICENTRE, PATIENT/EVALUATOR-BLINDED, RANDOMISED CONTROLLED TRIAL

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Objective: The clinical utility of fillers has been extensively studied for the face, whereas studies for the penis are lacking. This study aimed to compare the efficacy and safety between hyaluronic acid (HA) and polylactic acid (PLA) filler injection for penile augmentation (PA) in randomised controlled trial.

Methods: 72 patients with small penis syndrome from 3 institutions were enrolled between March and July 2016. The patients were divided into two groups: the HA group comprised 36 patients injected with HA and the PLA group, 36 patients injected with PLA. Penile girth and satisfaction were assessed at baseline and at 4, 12, 24, and 48 weeks after injection.

Results: Penile girth increases adequately lasted up to 48 weeks in both groups (16.95 ± 10.53 and 13.49 ± 9.98 mm of mean increase in the HA and PLA group, respectively, each $P<0.001$). The mean penile girth increase in the HA group was significantly greater than that in the PLA group at 4 weeks ($P<0.001$). Then, it gradually decreased and was no longer significantly different at 48 weeks ($P=0.075$). Satisfaction levels increased after injection and were maintained up to 48 weeks. There were no significant differences in overall satisfaction level increases between the groups (each $P>0.05$). Filler injection-related adverse events were mild and transient, and occurred in 1 and 3 patients in the HA and PLA group, respectively.

Conclusion: Both HA and PLA filler injection for PA led to a significant augmentative effect without serious adverse events, and had clinically comparable efficacy and safety.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-06 Late Breaking Oral Presentations

PS-06-001

THE MASTURBATION ERECTION INDEX (MEI): VALIDATION OF A NEW PSYCHOMETRIC TOOL DERIVED FROM THE INTERNATIONAL INDEX OF ERECTILE FUNCTION (IIEF-6) AND FROM THE ERECTION HARDNESS SCORE (EHS) FOR MEASURING ERECTILE FUNCTION DURING MASTURBATION

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Objective: To validate a psychometric instrument, the Masturbation Erection Index (MEI) able to evaluate erectile function (EF) during masturbation. In fact, although the evaluation of EF during masturbation is pivotal in evaluating erectile dysfunction (ED), to date no specific psychometric tools have been developed to measure it both in the routine clinical practice and in the experimental setting.

Methods: Of 560 male patients attending for the first time our andrological outpatient clinic, 99 (17.7%) were affected by ED. As a control group, we enrolled 102 sexually healthy men. All subjects were requested to fill out both the abridged International Index of Erectile Function (IIEF-6) and the MEI. The MEI was used together with a standardized tool, the Erection Hardness Score (EHS). The MEI was validated in terms of content validity. Test-retest reliability was assessed using the Intraclass Correlation Coefficient (ICC). Internal consistency was evaluated by the Cronbach's alpha. The comparability between MEI and IIEF-6 in measuring EF was tested by the Bland & Altman analysis. The Concordance Correlation Coefficient (CCC) between the two questionnaires was also determined.

Results: Internal consistency of MEI was > 0.93 . Test-retest reliability was 0.982 (95% CI 0.975 to 0.987). The Bland & Altman analysis showed a good level of agreement between IIEF-6 and MEI in the whole ED population, with stronger agreement in the organic ED-subpopulation. The estimated AUC of MEI was 0.983 ($p < 0.0001$; 95% CI 0.954 to 0.996) with a score of 27 or lower as the optimal cut-off to discriminate between the presence or the absence of ED during self-induced masturbation. The CCC, the Pearson ρ and the Bias Cb were 0.951 (95% CI 0.936 to 0.962), 0.968, and 0.982, respectively.

Conclusion: The MEI showed good internal consistency and good level of agreement with IIEF-6. Hence, the MEI fulfills the major psychometric requirements for measuring EF during masturbation.

Policy of full disclosure: This work is partially supported by Italian Ministry of University (Grants No. 2015XCR88M to the University of Rome Tor Vergata and to the Polytechnic University of Marche, and grant No. RBAP109BLT_004 to the University of Rome Tor Vergata) and by the "Consolidate the Foundation" Grant to the University of Rome Tor Vergata.



PS-06-002

PREOPERATIVE ERECTILE DYSFUNCTION IS A PROXY OF CHRONIC KIDNEY DISEASE AFTER SURGERY FOR RENAL CELL CARCINOMA - A PILOT STUDY

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Objective: Erectile dysfunction (ED) has been associated with a higher risk of developing cardiovascular diseases, metabolic disorders and other comorbidities. Patients surgically treated for renal cell carcinoma (RCC) are at risk of developing chronic kidney disease (CKD) over time. Detecting those at higher risk of CKD is crucial for an adequate treatment and follow-up planning. We tested the association between preoperative ED and the risk of developing CKD after surgery for RCC.

Methods: A total 106 male patients surgically treated for RCC at a single center, between 2012 and 2018, had available preoperative erectile function (EF) data. Preoperative EF was assessed with the International Index of Erectile Function-EF (IIEF-EF) tool. This questionnaire is routinely administered at our center to RCC patients aged ≤ 70 years. Patients were submitted to either partial (PN) or radical nephrectomy (RN) according to clinical stage. After surgery, they were routinely assessed every 6 months for the first 2 years and annually thereafter; estimated glomerular filtration rate (eGFR) was calculated by the CKD Epidemiology Collaboration formula (CKD-EPI). Patients missing follow-up data were excluded (N=16). Kaplan Meier analyses estimated the cumulative incidence of CKD (eGFR < 60 ml/min). Cox regression analyses tested the association between preoperative EF and the risk of postoperative CKD.

Results: Median (IQR) preoperative IIEF-EF score was 26 (12-29), with 24% (N=22) of patients reporting scores suggestive for severe ED (IIEF-EF < 11). At baseline, 82 (91%) patients had normal eGFR. Overall, 55 (61%) patients were treated with RN. Median (IQR) follow-up was 27.5 (17-47) months. The overall estimated risk of postoperative CKD was 5% (95%CI: 2-15) and 21% (95%CI: 12-35) at 1- and 2-year postoperative follow-up. Patients with preoperative severe ED showed a higher risk ($p=0.002$) of developing postoperative CKD [1-year: 13% (95%CI: 4-44); 2-year: 44% (95%CI: 22-73)] compared to others [1-year: 2% (95%CI: 0-15); 2-year: 13% (95%CI: 6-29)]. At Cox regression analysis, preoperative severe ED was associated with higher risk of developing CKD after surgery (HR: 2.67; 95%CI: 1.03-6.94, $p=0.04$) after adjusting for type of treatment (RN vs. PN) and preoperative eGFR.

Conclusion: Erectile dysfunction is a common disorder among patients with RCC. Of them, patients with severe ED depicted 3-fold higher risk of developing postoperative CKD. Preoperative EF status may be an additional factor to be considered for treatment planning and follow-up of patients with RCC. Policy of full disclosure: None



PS-06-003

INFORMATION OF ERECTILE DYSFUNCTION ON YOUTUBE: IS IT SCIENTIFIC EVIDENCE-BASED?

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Objective: In a globalized and permanently connected world, the way our patients get the medical information has radically changed in the last few years. The objective of our study is to establish the scientific quality of the available information in YouTube about erectile dysfunction (ED).

Methods: We searched on YouTube three terms (erectile dysfunction, erection problems and impotence) selected by a questionnaire our patients passed out. The sixteen first videos from each term were selected for the analysis. Two independent urologists reviewed all videos and classified all of them in two categories: scientific evidence-based (SEB) or not scientific evidence-based (NSEB) according to the current literature and guidelines; then we determined the Kappa statistic. In the subgroup analysis we compare: number of visits, duration, time of publication, source and type of information.

Results: After excluding the repeated links and non-concordant videos between both urologists, we analysed 116 videos that contained information about ED. The Kappa statistic was 0.91 (95% CI 0.88-0.94). 38% were considered SEB and 62% were considered NSEB. The median of reproductions in the SEB group was 25152 (56-2255498) and 93602 for NSEB (767-17998691); this difference was statistically significant ($p=0.017$). The median duration was 184 seconds (42-4491) for the SEB group and 253 seconds for the NSEB (24-4664); the median time of publication was 3 years for the NSEB group and 2 years for the other one. 80% of SEB videos were published in health networks and television programs, while 20% were published in user blogs. The SEB videos show more information about pathophysiology, aetiology, endothelial dysfunction, diagnosis and treatment, while NSEB videos show more information about natural remedies ($p < 0.05$).

Conclusion: Only 38% of the videos were considered SEB. The NSEB videos were significantly more played than SEB group.

Policy of full disclosure: None

PS-06-004

PSYCHOSEXUAL CORRELATES OF UNWANTED SEXUAL EXPERIENCES IN WOMEN CONSULTING FOR FEMALE SEXUAL DYSFUNCTION ACCORDING TO THEIR TIMING ACROSS THE LIFE SPAN

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Objective: Our aim was to investigate the prevalence of unwanted sexual experiences (USEs) in a setting of female sexual dysfunction (FSD) and to examine whether they are associated with different psychosexual parameters depending on the timing of occurrence.

Methods: A consecutive series of 200 heterosexual women attending our clinic for FSD was consecutively recruited. Patients underwent a structured interview and completed the Female Sexual Function Index (FSFI), the Middlesex Hospital Questionnaire (MHQ), the Female Sexual Distress Scale Revised (FSDS-R), the Body Uneasiness Test (BUT), and the Childhood Experience of Care and Abuse Questionnaire (CECA-Q).

Results: 47 women (23.5%) reported USEs, occurring in childhood (<14 years), adolescence (<17 and ≥ 14), and adult life (≥ 17) in 38.3% ($n=18$), 31.9% ($n=15$), and 29.8% ($n=14$) of cases, respectively. We observed an association between history of lifetime USEs and indexes of psychopathology, specifically diagnosis of psychiatric diseases, use of psychiatric medications, and anxiety symptoms (MHQ free-floating anxiety score, MHQ-A). USEs were associated with lower orgasm ability (FSFI orgasm domain), higher sexually related distress levels (FSDS-R total score), and higher body image concerns (BUT) including depersonalization symptoms. Notably, women exposed to USEs in adolescence reported a stronger impairment of arousal, orgasm, and satisfaction domains and higher sexual distress when compared to women without a history of USEs or reporting USEs in childhood. Women exposed to USEs in childhood exhibited higher body

image concerns and depersonalization symptoms when compared to those not reporting USEs.

Conclusion: The negative outcomes of USEs vary according to their timing of occurrence: adolescence appears the most sensitive temporal window for USEs to exert their deleterious effects on female sexuality, whereas childhood USEs are more tightly related to a severe body uneasiness in adult life.

Policy of full disclosure: None

PS-06-005

THE MECHANISMS OF ERECTILE DYSFUNCTION AFTER ADMINISTRATION OF ANTICANCER AGENTS IN RATS

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Objective: It is necessary to know which types of anticancer agents affect erectile function in cancer survivors. Analysis of the US Food and Drug Administration (FDA) Adverse Event Reporting System (AERS) database showed that melphalan (L-PAM), methotrexate (MTX), vincristine (VCR), doxorubicin (DOX), and docetaxel (DTX) increased the risk of erectile dysfunction (ED). Therefore, we investigated the mechanism of ED in rats. **Methods:** Male rats were administered the anticancer agents. At 1, 2, and 4 weeks, erectile function was tested using ICP measurements and testosterone levels, endothelial function using isometric tension, eNOS protein expression using western blotting, and oxidative stress (NADPH oxidase, p22phox expression) and inflammation (IL-6, NF- κ B) using real-time PCR.

Results: With L-PAM (0.38 ± 0.06) and MTX (0.52 ± 0.04), the ICP/MAP ratio significantly decreased at one week. Contrarily, VCR (0.42 ± 0.04) and DOX (0.32 ± 0.03) significantly decreased the erectile function at four weeks. DTX (1w: 0.53 ± 0.01 , 2w: 0.48 ± 0.05 , 4w: 0.51 ± 0.08) tended to decrease the erectile function at all time points. With L-PAM, oxidative stress and inflammatory marker levels were significantly higher than in the control group. With MTX, eNOS protein was significantly lower. With VCR, oxidative stress and inflammatory markers were significantly higher and endothelial function was lower. With DOX, oxidative stress and inflammatory markers were significantly higher, and testosterone level and endothelial function were lower. With DTX, oxidative stress and inflammatory markers were significantly higher and eNOS protein was significantly lower. **Conclusion:** Different anticancer agents cause ED by different mechanisms. L-PAM and MTX cause ED early through a significant rise in oxidative stress and inflammation or by decreasing eNOS. On the other hand, with VCR and DOX, repeated exposure causes ED through significant oxidative stress and inflammation, leading to endothelial dysfunction. Erectile function should be screened carefully in cancer survivors.

Policy of full disclosure: None

PS-06-006

PROSPECTIVE COMPARISON BETWEEN DIFFERENT REGIMENS OF SKIN DISINFECTION PRIOR TO IMPLANTATION OF HYDRAULIC PENILE PROSTHESES

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Objective: Skin disinfection of the genital area prior to implantation of a penile prosthesis is of crucial importance. As a rule the recommendation is to perform "the holy washing". However, there are no evidence-based data on this type of skin disinfection.

Methods: We performed a prospective comparison of skin disinfection procedures. The aim is to analyze and compare the microbiological skin colonization before and after the respective disinfection procedure. The collective

consisted of 3 groups with 30 patients each. Each group underwent a standardized smear test taken from the native skin before disinfection and after the respective procedure. In Group 1 we applied the procedure of the "holy washing" with 5 ml Betaisodona soap over 15 min prior to the actual surgical skin disinfection. In Group 2 we performed skin disinfection solely with tinted Kodan® (alcoholic disinfection). In Group 3 we performed disinfection exclusively with Chlorhexidine. All patients underwent surgery by the same surgeon, we chose a penoscrotal access, and all patients received a Coloplast Titan Touch Prosthesis. Only virgin patients with primary implantation were included. The investigation method was granted by the hygiene department of the hospital and the local Ethics Committee.

Results: Analysis of native smear tests in Groups 1, 2, and 3 showed bacterial colonization in 34 cases. In Group 1 bacteria could be found in all samples after the washing with Betaisodona soap. In 14 cases (46.7%) there was a bacterial shift to Gram negative (*E. coli*). In Group 2 no bacterial growth was evident in 21 cases (70%), in one case there was a bacterial shift from Gram positive to Gram negative (*E. coli*). In Group 3 no bacterial growth was evident in 26 cases (86.7%).

Conclusion: The so-called "holy washing" deserves critical reassessment in view of the increased numbers of germs and shift of the germ spectrum. Surgical skin disinfection with Chlorhexidine has shown the best Results in this study which is being continued.

Policy of full disclosure: None

PS-06-008

CHILD SEXUAL OFFENDING IS ASSOCIATED WITH PRENATAL AND EPIGENETIC ALTERATIONS OF THE ANDROGEN SYSTEM



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Objective: Child sexual offending (CSO) represents a serious burden on society and medicine and pedophilia (P) is considered an important risk factor for CSO. The androgen system is closely linked to sexual development and behavior.

Methods: This investigation assessed markers of prenatal brain androgenization, genetic parameters of androgen receptor function, epigenetic regulation, and peripheral hormones in a 2x2 factorial design comprising the factors offense (yes/no) and pedophilia (yes/no) and analyzed blood samples from 194 subjects (57 P+CSO, 45 P-CSO, 20 CSO-P and 72 controls) matched for age and intelligence. Subjects also received a comprehensive clinical assessment.

Results: Independent of their sexual preference, child sexual offenders showed signs of elevated prenatal androgen exposure compared with non-offending pedophiles and controls. The methylation status of the androgen receptor gene was also higher in child sexual offenders, indicating lower functionality of the testosterone system, accompanied by lower peripheral testosterone levels. In addition there was an interaction effect on methylation levels between offense status and androgen receptor functionality. Interestingly, markers of prenatal androgenization and the methylation status of the androgen receptor gene were correlated with the total number of sexual offenses committed.

Conclusion: This study demonstrates alterations of the androgen system on a prenatal, epigenetic, and endocrine level. None of the major findings was specific for pedophilia, but they were for CSO. The findings support theories of testosterone-linked abnormalities in early brain development in delinquent behavior, and suggest possible interactions of testosterone receptor gene methylation and plasma testosterone with environmental factors.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-07 Reconstructive surgery

PS-07-001

20-YEAR FOLLOW-UP AFTER PENILE PROSTHESIS IMPLANTATION: FUNCTIONAL AND QUALITY OF LIFE OUTCOMES



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Objective: Assess the long-term complications, functional and quality of life (QoL) outcomes following 3-piece inflatable penile prosthesis implantation (IPP).

Methods: Data of 65 consecutive patients submitted to IPP between 1991 and 2001 at a single center were analyzed. Baseline and perioperative data were analyzed. Patients were regularly reassessed over the follow-up (FU) to evaluate rate of complications and functional outcomes. The validated questionnaire Quality of Life and Sexuality with Penile Prosthesis (QoLSPP) was used to assess patients' QoL. Kaplan Meier analysis estimated the probability of prosthesis survival (defined as working device/not-explanted). Cox regression analysis assessed predictors of IPP failure.

Results: Median (IQR) FU was 206 months (145, 257). Of all, 14(9.4%) patients were dead at FU assessment and functional data could not be retrieved. Etiology of erectile dysfunction (ED) was vasculogenic (N=20; 39%), Peyronie disease (N=15; 29%), pelvic surgery (N=4; 7.8%), organic other than vasculogenic (N=3; 5.9%) and others (N=9; 18%). Of 51, 42 (83%) and 9 (17%) patients were implanted with either a peno-scrotal and a suprapubic approach, respectively. Throughout the FU, 24 (49%) patients experienced complications [mechanical failure (79%); pain (12%); orgasmic dysfunctions (4.2%); device infection (4.2%)]. The estimated IPP survival was 53% (95%CI:36-67) at 240-mos FU. Patients baseline characteristics (age; CCI; BMI; ED etiology) were not predictors of IPP failure over time. At 240-mos FU, 41% (95%CI 19-49) still used the device. Among them, QoLSPP median (IQR) domain scores were high: functional 22/25 (20, 23), relational 17/20 (15, 18), personal 14 (12, 15), social 14/15 (11, 15).

Conclusion: Long-term FU data after penile prostheses implantation showed that almost 50% of the devices still properly work after 20 years, with 40% of patients still using the device with high satisfaction and QoL outcomes. Both patients and physicians should be aware of the long life and outcomes of IPP.

Policy of full disclosure: None

PS-07-002

PENILE AUGMENTATION BY DIVISION OF THE SUSPENSORY LIGAMENT OF THE PENIS AND AUTOLOGOUS FAT INJECTION: A 72-PATIENT EXPERIENCE

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Objective: To evaluate the outcome of penile augmentation (PA) surgery at one center.

Methods: This was a retrospective review of patient outcomes after surgical PA from January 2018 to October 2018 at one centre. All patients underwent division of the suspensory ligament of the penis, with insertion of silicon buffer, and autologous fat injection. 60 patients underwent a standard halfmoon incision above the base of the penis in the pubic hairline and 12 patients had a V-Y-plasty incision. The following data were collected; pre and post-operatively: flaccid penis length and girth; patient reported satisfaction rates and complications.

Results: 72 patients were included the study. The mean patient age was 38 (26-62) years; mean follow-up period was 5 (1-9) months; mean pre-operative flaccid length and girth was 9.2 (6-14) cm and 8.8 (7-11.5) cm respectively; and the mean increase in flaccid penile length and girth was 4.4 (2-8) cm and 4.1 (2.5- 7.5) cm respectively. In terms of patient-reported treatment outcome: 50 patients reported very high satisfaction; 15 patients reported high satisfaction; 5 patients reported moderate satisfaction; and 2 patients low satisfaction. No serious complications were encountered, with the majority being managed conservatively: 5 patients who underwent V-Y-plasty incision developed superficial wound breakdown and infection which was managed conservatively; 5 patients developed phimosis which resolved spontaneously except in 1 patient who needed a circumcision; 5 patients had partial fat absorption with 3 requiring fat top-up; and 7 patients experienced the formation of a hard fat lump which was managed by hyalase injections in an outpatient setting.

Conclusion: Surgical Penile enlargement is a safe, effective procedure associated with a high patient-satisfaction rates.

Policy of full disclosure: None

PS-07-003

TOTAL PHALLIC RECONSTRUCTION IN THE GENETIC MALE: A SINGLE CENTRE ANALYSIS

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Objective: to assess surgical and patients' reported outcomes (PRO's) after a TPR using a radial artery-based forearm free flap (RAFFF).

Methods: From September 2001 to August 2018 a consecutive series of 108 genetic male patients underwent a TPR using a RAFFF in a single tertiary referral centre secondary to a penile inadequacy. The TPR was conducted as a multiple staged procedure 1) TPR with RAFFF 2) glans sculpting 3) penile prosthesis implantation. A urethroplasty was performed in one or two stages depending on the quality of the previously reconstructive native urethra. A urethroplasty was performed in all patients even if they had had a urinary diversion (n=32) so as to enable ejaculation. The data was retrospectively extrapolated from the clinical records. The patient's baseline features and the incidence of postoperative complications are reported. PRO's were assessed through a 4-items "ad hoc" created questionnaire and a 5-point Likert item administered through a telephone interview.

Results: The aetiologies underlying the penile inadequacy were penile cancer (26%), bladder exstrophy and epispadias complex (30%), micropenis (26%) and traumatic amputation (18%). The median age at the time of the

TPR was 32.5 years (IQR 24-46) and median follow-up was 78.5 mths (IQR 30-129). A primary anastomotic urethroplasty was performed in 87 patients (80.6%) and a staged urethroplasty in the remainder. A total of 77 patients (71%) completed all stages of the reconstruction including an inflatable penile prosthesis implantation. Forty one patients (38%) answered the telephone interview of which 80% of patients declared to be fully satisfied with the cosmetic appearance and size of the neo-phallus, 76% reported to successfully achieve an orgasm through masturbation or penetrative sex intercourses, 76% would have the operation again and 90% would recommend the operation to a friend. An acute arterial thrombosis occurred in 4 patients leading to a complete loss of the neo-phallus in 2 of them. A partial necrosis of the neo-phallus due to venous ischemia occurred in 21 patients (19%) which was managed successfully by early debridement and local flap reconstruction or grafting in all cases. The overall incidence of urethral complications was 60% (32% fistula and 28% stricture) with 2 patients ending up with a definitive perineal urostomy. The univariate logistic regression analysis showed a single statistically significant association ($p = 0.041$) between the staged urethral reconstruction and an increased incidence of urethral complications. No predictive factors were identified for vascular complications.

Conclusion: Despite the high incidence of postoperative complications and the possible need for multiple revisions, TPR in the genetic male with penile inadequacy using a RAFFF yields excellent aesthetic and functional.

Policy of full disclosure: None

PS-07-004

AN OVERVIEW ON PAIN AFTER INFLATABLE PENILE PROSTHESIS IMPLANTATION: PRELIMINARY RESULTS FROM A SINGLE-CENTER PROSPECTIVE COHORT STUDY

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Objective: Penile prosthesis (PP) implantation is associated to a certain degree of postoperative pain, that can last for several days; this issue is rarely addressed in the literature. Objective of the study is to assess the pain after inflatable PP implantation.

Methods: From 6/2017 to 6/2018 45 consecutive patients, mean age 62, underwent inflatable PP implantation (22 a straightforward procedure, 23 a PP implantation plus adjunctive manoeuvres, typically for Peyronie's disease) and were prospectively followed. Surgery was performed under spinal anaesthesia and the same perioperative pain management protocol was applied. Pain assessment: NRS scale at 1, 8, 12 hours and 1,4,12 weeks after surgery; drugs discontinuation time was recorded. Statistics: Mann-Whitney, Chi square, multiple regression analysis (STATA)

Results: The mean operative time was 120' (IQR 90-150). A single acute infection was recorded. The median NRS at 1, 8 and 12 hours was 1 (0-4), 5 (3-7), and 4 (2-6) respectively. A rescue therapy for pain was necessary in 16 patients (35.6%). The median NRS at 1, 4 and 12 weeks was 6 (3-7), 2 (1-3), 0 (0-1) respectively. The median discontinuation time of the pain therapy was 14 days (6-21); 10 (3-21) in Group A and 17 (14-25) in group B; this was the only significant difference ($p < 0.05$) at the "matched-pair" cohort analysis. At the multivariate analysis, none of the variables added statistical significance to the prediction of the NRS at 1 week. The median time to first penetrative intercourse was 42 days (30-60); for 6 patients (28.6%) the first intercourse resulted painful.

Conclusion: Most of the patients undergoing PP implantation will require a pain therapy to be continued after the hospital's discharge, for an even longer time if a complex penile surgery was performed. This finding must be taken into account in counselling the patient and outlining the postoperative analgesic therapy.

Policy of full disclosure: None

PS-07-005

PENOSCROTAL INCISION FOR PRIMARY IMPLANTATION OF AMS 800 ARTIFICIAL URINARY SPHINCTER



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Objective: The artificial urinary sphincter (AUS) has become the gold standard to treat severe stress urinary incontinence in men. The traditional placement of an artificial urinary sphincter requires two incisions. The cuff is placed through a perineal incision and the reservoir and pump are placed via a separate suprapubic incision. The implantation of an AUS is also possible via a penoscrotal approach which requires only one incision. The objective is to demonstrate that the penoscrotal approach is not inferior to the perineal approach and even has multiple advantages.

Methods: Retrospective review of a single surgeon database from 2014 to 2018 was performed. A total of 40 patients have undergone implantation of an artificial urinary sphincter via a penoscrotal single incision. The patients were followed for an average of 14 months for adverse outcomes.

Results: Between 1 October 2014 and 3 May 2018, a primary AMS 800 sphincter was placed in 40 patients at the Jessa Hospital in Hasselt via a single penoscrotal incision. The average age was 72 years, with the youngest patient 43 years old and the oldest patient 85 years old. The average operating time was 35 minutes. The average cuff size was 4 cm. There were no infections of the prosthesis. 4 patients (10%) required a revision. After activation of the sphincter 32 patients (80%) were completely dry or using one pad per day for accidents. The remainder were improved.

Conclusion: Artificial urinary sphincter implantation via a single penoscrotal incision has several advantages. The operating time is shorter and the procedure requires only one incision which reduces the risk of infection. The technique is considered easier to execute and the exposure of the anatomy is superior when the procedure is performed adequately.

Policy of full disclosure: None

PS-07-006

LONG-TERM RESULTS IN SURGICAL TREATMENT OF PENILE FRACTURE



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Objective: Penile fracture is a common urological trauma seen in Vietnam. This study is to review the causes, symptoms and the outcome of penile fracture in Binh Dan Hospital.

Methods: A case series of penile fracture being treated by immediate surgery in Binh Dan Hospital from January 2012 to September 2016.

Results: 131 cases were admitted in our study. Mean age was 38.1 years old. Mean follow up was 11.44 ± 8.31 months. Masturbation cause was more frequent (81 cases) than intercourse (50 cases). Patients had presented themselves with experiencing a cracking sound and bent penis. All patients experienced penile swelling with ecchymosis. 82 patients reported hearing a "snap or cracking" sound and 93 cases feeling painful in the penis. Immediate surgery was performed in all cases. Fracture on the right side showed to be more frequent than the left side (97 of 131). In one special case, fracture on both side of cavernous corpus was presented. Most cases had the site of fracture in the proximal of the penis followed by middle and the distal fracture was the rarest (3 cases). The mean length of the fracture measured 1.37 cm. All patients have sexual intercourse: 6 ± 2.3 weeks. We use SHIM-5 questionnaires to assess patient after surgery and we have Results: 92% patients have SHIM score > 21 and 8% patients have SHIM score: 17 – 21.

16% patients had psychological effects due to penile fracture, 12% patient

had pain on erection, 01 case complain has PE and 01 case has mild penile curvature and plaque detected on the penis.

Conclusion: Masturbation was the most common cause of penile fracture in our study. Our study also showed that fracture was more often in the proximal right side of the penis. Immediate surgery should be performed to insure excellent Results.

Policy of full disclosure: None

PS-07-007

COMPARISON BETWEEN TWO DIFFERENT XENOGRAFTS IN THE SURGICAL TREATMENT OF PEYRONIE'S DISEASE: A SINGLE-CENTER EXPERIENCE



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Objective: To compare two different type of xenografts used for albuginea grafting after plaque incision/excision (PEG) for surgical treatment of Peyronie's disease (PD)

Methods: From 2010 to 2017, 43 patients (pts) with PD underwent corporoplasty with PEG, using two different xenografts: porcine acellular collagen matrix (25 patients - Group1) and bovine pericardium collagen matrix (18 patients - Group2). For long-term evaluation of surgical outcomes multi-disciplinary questionnaires were administered, by phone interview, always performed by the same doctor. Only 27 patients completed the follow up (16 in G1 and 11 in G2). The following items were considered: correction of penile bending, quality of erection, intercourse ability, penile shortening, sensitiveness. The overall satisfaction and impact of operation on the sexual activity and QoL was also investigated

Results: mean patients age at time of surgery was 57yo (G1) and 54yo (G2); mean follow up was 73 months for the G1 (60-83) and 40 months for the G2 (31-57); pre-operatively, the 2 groups were homogeneous in terms of co-morbidity and types of curvature. Plaque median size was 27.5 mm (G1) and 28 mm (G2). Median IIEF score, pre and post-operatively, was respectively 23-15 (G1) and 24-18 (G2). Complete straightening of the penis was obtained in 73.3% (G1) and 63.6% (G2). Penile shortening occurred in 13 patients in G1 (81.3%) and in 9 in G2 (81.8%). Only 3 major short-term complications were observed: infections (2 cases) and ischemia of the glans (1) all in the group 1. Patients' post-operative sexual life was reported as improved in 50% of cases in G1 and in 63.6% of cases in G2, unchanged in 4 patients in G1 (25%) and in 1 patient in G2 (9.1%), worsened in 4 patients in G1 (25%) and in 3 patients in G2 (27.3%).

Conclusion: No statistically significant differences were found between the two groups, in terms of surgical outcomes and overall patients' satisfaction.

Policy of full disclosure: None

PS-07-008

WHICH PENILE IMPLANT HAS THE BEST SURGICAL AND SATISFACTION OUTCOMES? DATA FROM A 203 PATIENTS MONOCENTRIC SERIES



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Objective: Patient counselling is crucial before prosthetic surgery; few data are available in the literature comparing the outcome of various types of prosthesis, so counselling about this topic is often based on personal opinions of the surgeon. The aim of the work was to compare surgical Results, complications and patient satisfaction after placement of hydraulic and semi-rigid prosthetic implant in a monocentric prospective data base.

Methods: We analyzed follow up data of 203 patients who underwent from 2004 to 2016 prosthesis placement for erectile dysfunction, 163 three-component hydraulic implants AMS 700 (GROUP 1) and 40 malleable semi-rigid implants Coloplast Genesis (GROUP 2). The two groups were homogeneous by age and comorbidity. 12 months after surgery all patients underwent an andrological examination with EDITS questionnaire and ad hoc questions on satisfaction regarding several aspects: intervention outcomes, penis size, quality of sex Life, quality of Life. Complications were recorded prospectively and all patients were re-contacted to exclude adverse events not recorded. Statistics: Fisher test, T-test.

Results: Results are listed in table 1. Satisfaction and Quality of Life (QoL) data are expressed as number of patients who gave positive answers to specific questions.

Conclusion: There were no statistically significant differences between the two groups in the complication rate. Patients in both group were satisfied by the procedure and the size of the penis; in general, all scores were largely positive in both groups, but patients with a non hydraulic prosthesis (despite a preoperative counselling particularly detailed and carried out at two different times) showed lower EDITS scores and declared in a significantly lower proportion that they had an improvement in sex-related and general QoL. In conclusion, no significant differences emerged in the surgical outcomes of the intervention, while regarding the more general satisfaction parameters the hydraulic prostheses, that more faithfully simulate a physiological state, were more appreciated.

Policy of full disclosure: None

PS-07-009

EVALUATING THE EFFICACY OF SPLIT THICKNESS SKIN GRAFTING SURGERY FOR MALE GENITAL RECONSTRUCTION

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Objective: Genital skin lost is a rare urological trauma, it is caused by many reasons. The main objective of this study is to evaluate the efficacy of split – thickness skin grafting surgery for male genital reconstruction.

Methods: This is a case series at Binh Dan hospital from 01/2015 to 10/2017. We described the characteristics of etiology, diagnosis and its surgical treatment.

Results: 15 patients were admitted in our study with different causes: working accident due to shrimp air blower (6 cases), post injecting silicone (paraffinoma: 4 cases), post Fournier's gangrene (2 cases), post reconnecting an amputation penile (1 case) and burn of the genital organ due to chemical (1 case), post circumcision at a private clinic (1 case). All cases were grafted with split – thickness skin. Post operation, they maintained or improved erection, normal voiding and had good cosmetic outcome.

Conclusion: We show the wide variety of indications for split thickness skin grafting use, the ease of the technique, and its successful outcomes. This procedure should be offered to patients as a first-line treatment.

Policy of full disclosure: None

PS-07-010

PSYCHOLOGICAL SURVEY AND MEDICAL FORM TO ESTABLISH OBJECTIVE EVALUATION CRITERIA OF OUTCOME ABOUT PHALLOPLASTY IN PEDIATRIC AGE

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Objective: The problem of objective assessment about aesthetic/functional Results and psychological implication after male external genitalia reconstructive surgery is yet known in the literature. To establish objective

evaluation criteria of outcome about De Castro's neo-phalloplasty in children, we created a psychological survey submitted to patients/parents and a form with medical parameters evaluated from the surgeon

Methods: Medical form is divided in subjective and objective parameters. Subjective (surgeons', parents' and patients' estimations) parameters are: overall appearance of external genitalia, look of penis - scrotum - penile scars - abdominal scars and look/position of the umbilicus; scored as extremely-poor, poor, acceptable, good, excellent or better in a ranking from 0 to 10. Objective parameters are: Tanner scale, Faisal external and internal masculinization score, sex hormones attitude, length of the ventral and dorsal aspect of penis and difference between the two, penile diameter, location of the urethral ending, urinary continence/voiding, patient's position during micturition, presence of penile erection – masturbation - erogenous areas - sexual intercourse – insertion of penile prosthesis. The survey evaluate patients and parents psychological/sexual aspects and quality of life post-phalloplasty. Tests used: Child Behaviour Checklist, Parenting Stress Index, Children Global Assessment Scale, Body Uneasiness Test, Revised Children's Manifest Anxiety Scale, Beck Depression Inventory, Beck Anxiety Inventory, Multi-Attitude Suicide Tendency Scale, Gender Identity/Gender Dysphoria Questionnaire, Duss Tales, Utrecht Gender Dysphoria Scale, Body Image Scale, Recalled Childhood Gender Identity Scale

Results: We have to evaluate 43 patients undergone to phalloplasty in a 16 years-period in 16 Countries: 15 penile agenesis, 8 rudimentary micropenis, 2 cloacal extrophy, 6 Partial Androgen Insensitivity Syndrome, 12 traumatic or iatrogenic penile amputations. Our expectations are to have significant and objective data to understand if this surgery allow good aesthetic/functional Results and a quality of life comparable to that of healthy pediatric population; if this surgery has a positive or negative sequel on the patients' psycho-sexual development and on patients' family attitude; the presence or not of a gender dysphoria.

Conclusion: Medical community has gone with difficulty over the use of female gender reassignment, which sometimes caused disasters. We believe that to establish objective evaluation criteria of aesthetic/functional/psychological outcome about external genitalia reconstructive surgery in children, is crucial to guide surgeons on management of this tricky topic.

Policy of full disclosure: None

PS-07-011

THE MANAGEMENT OF STUTTERING PRIAPISM: OUR EXPERIENCE IN 133 MEN

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Objective: Men with stuttering priapism often experience almost daily prolonged and painful sleep-related erections. The aim of this study is to evaluate the clinical features and treatment options of this rare and poorly understood condition.

Methods: A cohort study of 133 men that attended outpatients or the emergency department at a tertiary andrology unit between 2004 and 2017. Data was collected retrospectively in 102 of the patients (seen and/or discharged between 2004 - 2015) and prospectively in 31 patients (Seen between 2015 – 2017). The effectiveness of each treatment option was classified into; no effect, partial response and complete remission. Many of the patients have tried more than one of the available treatments.

Results: Aetiological factors included haemoglobinopathy (n = 67) (sickle cell disease [SCD] and thalassemia), drugs (n = 8), neurogenic causes (n = 3) homocystinuria (n = 1), haemodialysis (n = 1), trauma (n = 1), following surgery (n = 1) and idiopathic (n = 51). The mean (SE) age of the patients in the cohort is was 40.5 (1.2) years and age at diagnosis was 30.8 (1.2) years. There was a significant (p = 0.0001) bimodal age distribution at diagnosis between men with and without a haemoglobinopathy (24.5 vs 37.4 years). Within this series, numerous treatment options were effective at reducing the number and length of priapism episodes and are highlighted in Table 1.

Table 1. Effectiveness of treatment options in Stuttering Priapism

Group	Number	Complete remission n (%)	Partial resolution n (%)	No effect n (%)	Side Effects n (%)
α - agonists	93	6 (6)	54 (58)	33 (35)	12 (13)
Androgen deprivation	67	31 (46)	32 (48)	4 (6)	35 (52)
Hydroxyurea	23	0 (0)	18 (73)	5 (22)	0 (0)
AET*	16	0 (0)	14 (88)	2 (13)	2 (13)
PDE5i**	12	0 (0)	2 (17)	10 (83)	1 (8)
Aspirin	12	0 (0)	7 (58)	5 (42)	0 (0)
Baclofen	8	4 (50)	1 (13)	3 (38)	0 (0)

*Automated Exchange Transfusion

**Phosphodiesterase type 5 Inhibitors

Conclusion: Disease-modifying treatments initiated by Haematologists were the most effective at improving priapism symptoms in men with SCD. Androgen deprivation, α -agonists, Aspirin and Baclofen also appeared to be effective treatment options at improving symptoms in selected patients. PDE5i did not appear to be helpful in this patient group. Policy of full disclosure: None

PS-07-012

PENILE IMPLANT SURGERY DOES NOT REDUCE PENILE SIZE: A PROSPECTIVE STUDY OF 122 PATIENTS FOLLOWED UP TO TWO YEARS



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Objective: INTRODUCTION: A common cause of patient dissatisfaction after penile prosthesis implantation (PPI) is caused by the patient believing the penis has been shortened. **OBJECTIVES:** This prospective study aimed to investigate the correlation between stretched penile dimensions measured preoperatively and erect postoperative penile dimensions after 6,12 and 24 months.

Methods: Consecutive PPI were assessed in two high volume centers from January 2015 till July 2018. Standardized measurements of stretched penile length and girth were performed in theatre just preoperatively, then remeasured at the end of surgery with the penis in the erect position. Patients were assessed for remeasuring the erect penile length and girth at 6,12 and 24 months. A special questionnaire containing 5 questions was designed for this study and filled by the patient in each visit. The first three questions wondering if he thinks his penile size same after surgery, increased or decreased. The 4th question a Likert scale from 1-5 about his overall satisfaction and the last questions if recommends it to a friend. Microsoft Excel and SPSS were used for database and statistical analysis

Results: 122 patients had complete data were included in the analysis. The median age was 56 and the mean BMI was 30. Overall, there was a statistically significant but marginal increase in length at 6/12 months follow-up in length of 0.08 cm ($P=0.002$) when compared to immediate post-operative sizes. At 12 months the increase in length is still marginal 0.26cm but statistically significant ($P<0.05$). At 24 months this figure increases again to 0.36cm remaining significant ($P=0.035$). When stratified for malleable(MPP) versus inflatable(IPP), there was a small but statistically significant steady decrease in girth at 6 and 12 and 24 for MPP of 0.08, 0.29 and 0.25 cm respectively ($P<0.05$). When comparing those measures with patients subjective feeling we found that patients were not objective about their size change: 45.1% (55) felt had a smaller penis at

1 year but actually only 12.3% (15) had an objective reduction in at least either girth or length, and in 25.4% (31) there was an objective increase. The majority of patients (92.6%) were satisfied with very good feedback (4-5 score). Also, most of them (90.8%) recommended PPI to a friend. We didn't find any correlation between comorbidities and objective change in dimensions.

Conclusion: PPI preserves penile size on long run and there might be a small enhancement for IPP. Good counselling and sharing objective measures improve patient overall satisfaction.

Policy of full disclosure: None

PS-07-013

LARGER ROD DIAMETERS IN MALLEABLE IMPLANT SURGERY ARE CORRELATED WITH MORE COMPLICATIONS AND LESS PATIENT SATISFACTION



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Objective: Introduction: One of the most common complains after malleable prosthesis implantation(MPI) is thinning of the penis and decreasing girth. Some surgeons try to insert the largest diameter they can to improve patient satisfaction **Objectives:** To investigate if malleable rod diameter (MRD) has an impact on outcome and patient satisfaction

Methods: Consecutive MPI were assessed in high volume center over a one-year period. Same preoperative, intraoperative and postoperative protocols were used for all patients and one brand of malleable devices was used. We recorded MRD and length for all patients. All patients had data on comorbidities including glycated haemoglobin (HbA1c) and clinical Peyronie's disease (PD). Re-do patients and those who lost for follow up were excluded from the study. We also excluded patients operated on by low volume surgeons. After 1-year patients were assessed and given a Likert scale from 1-5 where 5 is most satisfied about their MPI. We stratified patients according to MRD into two groups: group A for diameter 9.5 and 11 mm and group B for 13 mm. Statistical analysis was done using Statistical test: Chi-square and statistical software: Stata Release 13

Results: 183 patients had full data and filled the questionnaire after 1 year follow up. All patients had Coloplast, Genesis penile implants. The complication rate (infection, erosion and removal) was significantly higher in group B with less patient satisfaction. Results are summarized in Table 1

Conclusion: Larger diameter of malleable penile implants are associated with higher rate of complications and reoperation with less patient satisfaction

Policy of full disclosure: None

PS-07-014

THE REPAIR OF ABNORMALITIES IN THE PENILE SUSPENSORY LIGAMENT

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Objective: The function of the penile suspensory ligament (PSL) is to provide support to the erect penis to and maintain an appropriate angle for sexual intercourse. This paper describes the management of congenital and acquired abnormalities of the PSL.

Methods: A total of 124 patients that presented with a variety suspensory ligament abnormalities necessitating repair are included. The aetiology included: subsequent to sexual trauma (n=68), congenital penile curvature/torsion (n=33), absence/laxity of the ligament (n=6), Peyronie's Disease (n=8), venogenic erectile dysfunction (n=7) and penile dysmorphic disorder (n=2). The diagnosis was made clinically via a history and examination, instability on artificial erection testing and the presence of a palpable gap between the pubis symphysis and penis. Psychogenic ED was excluded using nocturnal rigiscan monitoring. The surgical repair involved placement of non-absorbable sutures between the tunica albuginea of the penis in the midline and the symphysis pubis. Ancillary procedures of plication/grafting or venous ligation was also performed in 41 patients.

Results: The mean age (range) of the patients was 29 years (12-60 years) and mean follow up was 8 months (1 mth - 12 years). A good surgical result was achieved in 82% of patients as defined by stabilisation of the penis, a return to good sexual function and a straight cosmetic result. Overall 77% of patients were happy with the outcome. The main reason for dissatisfaction was residual curvature, mainly in the congenital curvature and sexual trauma groups although this was only >25 degrees in 5 patients. Complications included de novo ED in 2 patients and chronic pain in 2. Also revision repair was required in 15 patients at a later date mainly due to early recommencement of sexual intercourse.

Conclusion: There are a range of manifestations of penile suspensory ligament damage, leading to a variety of clinical presentations. However if correctly diagnosed a good cosmetic and functional result is usually achievable

Policy of full disclosure: None

PS-07-015

SOFT-SILICONE PENILE PROSTHESIS IMPLANT IN THE MANAGEMENT OF DELAYED OR REFRACTORY ISCHEMIC PRIAPISM

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Objective: To describe the use of soft-silicone prosthesis implant as first-line management of delayed or refractory ischemic priapism.

Methods: From May 2017 to July 2018, 6 patients were referred to our tertiary care center with ischemic delayed priapism; three of them were referred from other centers after unsuccessful conservative management with aspiration and intracorporeal injection of alpha-adrenergic agonists. Two patients had a history of sickle cells disease; all of them denied the assumption of either any pharmaceutical compound or illicit drugs. In all cases comprehensive blood exams, including fetal hemoglobin assessment, was performed; in one case, a new diagnosis of sickle cell disease was made. Low-flow priapism was confirmed with the gas evaluation of cavernosal blood, that revealed blood hypoxia and acidosis in all cases. Surgical procedure was performed via longitudinal peno-scrotal incision. Dilatation of corpora cavernosa was performed using scissors and Hegar dilators. After an extensive corporal irrigation with antibiotic solution, a soft-silicone prosthesis was inserted. The study was conducted in

accordance with the principles of the Declaration of Helsinki of World Medical Association.

Results: Median time to presentation was 78 hours (range 48-108), mean age of patients was 41 years (range 18-47). Median operative time was 82 minutes (range 62-180). No intraoperative complications and no subsequent infection were recorded. Median follow up was 9 months (range 3-17). Despite a transient reduction of penile sensibility, all patients has been satisfied with the Results of surgery (IIEF-5, Q5, mean value 4), and all were successfully engaging in satisfactory sexual intercourse. No significant loss of penile length, neither apical erosion nor extrusion was recorded.

Conclusion: In order to prevent fibrotic shortening, soft-silicone prosthesis represent a viable option, alternative to the commonly used malleable prosthesis, for the surgical treatment of delayed ischemic priapism.

Policy of full disclosure: None

PS-07-016

WHICH PATIENT MAY BENEFIT THE MOST FROM PENILE PROSTHESIS IMPLANTATION?

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Objective: Hydraulic penile prostheses (HPP) have been associated with overall good functional outcomes. Of relevance, some patients reported higher level of satisfaction and quality of life (QoL). We investigated the profile of patients who may benefit the most from HPP.

Methods: Data from a national multi-institutional database of penile prosthesis including patients treated from 2014 to 2017 in Italy (INSIST-ED) were analysed. All data have been prospectively recorded by 45 surgeons on a dedicated website (www.registro.andrologiaitaliana.it) and revised by a single datamanager. Patient's baseline characteristics were recorded. In order to simultaneously evaluate perceived penile prosthesis function and QoL, all patients were re-assessed at 1-yr follow-up using the validated questionnaire Quality of Life and Sexuality with Penile Prosthesis (QoLSPP). High QoL after surgery was defined as a score higher than the 75th percentile in each subdomains of the QoLSPP. Logistic regression analysis tested the association between clinical characteristics and high QoL after HPP implantation. **Results:** Follow-up data were available for 265 patients [median age 62 years (IQR: 56 – 67)] implanted with HPP. Erectile dysfunction (ED) etiology was pelvic surgery/radiotherapy in 41%(81), organic in 39%(77) and Peyronie's disease in 21%(41). Patients showed good overall QoLSPP scores at 1-yr follow-up for functional (F:22/25), Personal (P:13/15), Relational (R:17/20) and Social (S:13/15) domains. Overall, 27.5%(73) of patients reported high QoL after surgery. These patients did not differ in terms of median age (60 vs. 62); type of prosthesis (tri-component: 90% vs 95%) and post-operative complications (8% vs. 15%) compared to those with lower QoL score (all p>0.1). Conversely, patients with pelvic-surgery/radiotherapy-ED (49%) and Peyronie's disease more frequently (p=0.007) reported high QoL compared to men with organic ED (21%); similarly, a higher rate of patients reporting high QoL were treated in centers with a greater surgical volume (median N. of HPP/center: 68 vs. 44; p=0.01). At logistic regression analysis ED etiology was the only factor independently associated with high QoL at 1-year after surgery (p=0.01). Patients treated for ED post-pelvic-surgery/radiotherapy (OR: 2.91; 95%CI: 1.17-7.26) or Peyronie's (4.14; 95%CI: 1.52-11.2) were more likely to report better outcomes after accounting for age, post-operative complications and surgical volume.

Conclusion: The implantation of HPP is associated with an overall good QoL. However, patients affected by ED post-pelvic surgery/radiotherapy or Peyronie's disease could benefit the most from HPP in terms of functional outcomes, relationship with their partners and the outside world and perceived self-image.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: PS-08 Male sexual dysfunction: Epidemiology, risk factors

PS-08-001

SYMPTOMATIC ANDROGEN DEFICIENCY DEVELOPS ONLY WHEN BOTH TOTAL AND FREE TESTOSTERONE DECLINE IN OBESE MEN WHO MAY HAVE INCIDENT BIOCHEMICAL SECONDARY HYPOGONADISM: PROSPECTIVE RESULTS FROM THE EMAS



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Objective: Limited evidence supports the use of free testosterone (FT) for diagnosing hypogonadism when sex hormone-binding globulin (SHBG) is altered. Low total testosterone (TT) is commonly encountered in obesity where SHBG is typically decreased. We aimed to assess the contribution of FT in improving the diagnosis of symptomatic secondary hypogonadism (SH), identified initially by low total testosterone (TT), and then further differentiated by normal FT (LNSH) or low FT (LLSH).

Methods: Prospective observational study with a median follow-up of 4.3 years. Three thousand three hundred sixty-nine community-dwelling men aged 40-79 years from eight European centres. Subjects were categorized according to baseline and follow-up biochemical status into persistent eugonadal (referent group; n = 1880), incident LNSH (eugonadism to LNSH; n = 101) and incident LLSH (eugonadism to LLSH; n = 38). Predictors and clinical features associated with the transition from eugonadism to LNSH or LLSH were assessed.

Results: The cumulative incidence of LNSH and LLSH over 4.3 years was 4.9% and 1.9%, respectively. Baseline obesity predicted both LNSH and LLSH, but the former occurred more frequently in younger men. LLSH, but not LNSH, was associated with new/worsened sexual symptoms, including low desire [OR = 2.67 (1.27-5.60)], erectile dysfunction [OR = 4.53 (2.05-10.01)] and infrequent morning erections [OR = 3.40 (1.48-7.84)].

Conclusion: These longitudinal data demonstrate the importance of FT in the diagnosis of hypogonadism in obese men with low TT and SHBG. The concurrent fall in TT and FT identifies the minority (27.3%) of men with hypogonadal symptoms, which were not present in the majority developing low TT with normal FT.

Policy of full disclosure: None

PS-08-002

HEALTHY OBESITY IS A NEW RISK FACTOR FOR PATIENTS WITH ERECTILE DYSFUNCTION OR COUPLE INFERTILITY



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Objective: Obesity is a cause of erectile dysfunction (ED) whereas its relationship with male infertility is conflicting. The term “healthy obesity” (HO) has been used to describe an obese phenotype without the burden of any metabolic disorder. The aim of this study was to analyze the contribution of HO in the pathogenesis of ED and male reproductive health, and

to verify the value of HO in predicting major adverse cardiovascular events (MACE).

Methods: An unselected series of 4382 (51.4±13.1 years) men with sexual dysfunction (SD) and 231 (37.9±9.1 years) males of infertile couples without genetic abnormalities were studied. A subset of men with SD (n=1687) was enrolled in a longitudinal study. Several clinical and biochemical parameters were evaluated. Erectile function and prostatitis like-symptoms were assessed with IIEF-15-erectile function domain and NIH-CPSI, respectively. All subjects underwent penile colour-Doppler ultrasound (PCDU) in flaccid conditions. Males of infertile couples underwent scrotal and transrectal ultrasound and semen analysis including interleukin 8 (sIL-8), a marker of genital tract inflammation. HO was defined as the presence of body mass index > 30 Kg/m², HDL > 40 mg/dl and absence of diabetes or hypertension. The rest of the obesity sample was defined as “complicated obesity” (CO). The characteristics of men with HO or CO were compared with those of healthy normal weight individuals (HNWI).

Results: Among the patients with SD, 723 (16.5%) were obese, 163 (3.7%) with HO and 560 (12.8%) with CO. Among males of infertile couples, 68 (28.4%) were obese, 19 (8.2%) with HO and 49 (21.2%) with CO. After adjusting for confounders, in both samples, either subjects with HO or CO showed lower total testosterone (TT) levels when compared to HNWI, while no difference in TT levels was observed between HO and CO. In both samples, men with CO, but not those with HO, reported a worse erectile function when compared to HNWI. At PCDU, in both samples, peak systolic velocity was lower in both HO and CO when compared to HNWI. In the longitudinal study, both HO and CO were independently associated with a higher incidence of MACE (HR=4.800[1.265;18.214]; HR=3.041 [1.078;8.573] 2.469[1.019;5.981], respectively; both p<0.05), when compared to the rest of the sample. Evaluating men with couple infertility, no differences in seminal parameters or prostatitis-like symptoms were observed among groups. However, when compared to HNWI, subjects with CO and HO showed a higher prostate volume, and men with CO also a higher risk of ultrasound and biochemical (sIL-8) features of prostatic inflammation.

Conclusion: HO and CO induce subclinical and clinical ED, respectively, irrespective of TT levels, and are associated with an increased cardiovascular risk. HO and CO are not associated with semen abnormalities, but they are both associated with prostate enlargement, and CO even with signs of prostate inflammation. Hence, HO represents an early risk factor both for sexual and prostatic health.

Policy of full disclosure: None

PS-08-003

DO WE ALWAYS HAVE TO LOOK FOR ERECTILE DYSFUNCTION IN PATIENTS WITH LOW URINARY TRACT SYMPTOMS?



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Objective: Current guidelines suggest to investigate erectile dysfunction (ED) among patients with low urinary tract symptoms (LUTS) whenever there is a clinical suspicion. We assessed potential predictive factors of ED

which could drive the need for clinical assessment among patients with LUTS in the everyday clinical practice.

Methods: Data from 927 men presenting for LUTS as their primary complaint at a single-center outpatient clinic were analyzed. Of them, patients with a previous diagnosis of ED were deliberately excluded (N=13). All patients completed the IPSS and the IIEF-Erectile Function (IIEF-EF; ED=IIEF-EF<26). Logistic regression analyses tested potential predictors of ED and severe ED. The accuracy of the predictive models was assessed and decision curve analyses (DCA) tested their clinical benefit.

Results: Median baseline IPSS score was 12 (7-19). Impaired IIEF-EF scores were observed in 503 (55%) patients (251 (27%) men with severe ED.) At logistic regression analysis, age (OR:1.04;p<0.001), IPSS score (OR:1.04; p<0.001) and diabetes mellitus (OR: 2.41; p=0.01) were associated with unreported ED, after accounting for hypertension, BMI and cardiovascular diseases. The same factors emerged as significant predictors of severe ED (all p<0.03). The models including those factors showed good accuracy for predicting ED (AUC=0.70 and 0.73, respectively). However, DCA showed no greater clinical benefit to define which patients should be screened for ED using those factors vs. screening all patients with LUTS (Figure 1). Conversely, the net clinical benefit of the tested models was higher when predicting severe ED, for threshold probabilities of 15-40%.

Conclusion: Unreported ED is highly prevalent among patients with LUTS. Older age, severe LUTS and a history of diabetes are at higher risk of having ED. However, using those latter specific factors to decide who should be screened for unreported ED does not seem more clinically useful than screening all patients with LUTS.

Policy of full disclosure: None

PS-08-004

QUALITY OF CLINICAL PRACTICE GUIDELINES FOR THE DIAGNOSIS AND TREATMENT OF ERECTILE DYSFUNCTION

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Objective: Erectile dysfunction (ED) affects a significant number of men around the world, reducing their quality of life and that of their partner, by which, the correct and timely diagnosis and treatment is a concern for different groups of health professionals. The clinical practice guidelines (CPGs) are tools that guide the work of professionals and specialists in this area, influencing the care of patients. The objective of this study is to assess the quality of CPG for the diagnosis and treatment of patients with ED.

Methods: Systematic literature review. To identify CPG of ED, Medline, Embase and Lilacs databases were consulted, as well as websites of specialized guideline development groups (GDG) and scientific societies. Two investigators independently assessed the quality of the guidelines using the AGREE II instrument. High quality within the CPGs was defined as a score greater than 60% in the domain 3 "rigor of development" of the AGREE II instrument. The associations between quality of the guidelines and the characteristics of the GDGs were analyzed using statistical tests according to the nature and distribution of these variables, considering a p-value less than 0.05 as significant. The data was analyzed using Stata 15®.

Results: 17 CPGs were included in this review. 13 had recommendations for the diagnosis, 15 for the treatment, 1 for the follow up and 1 included prevention recommendations; two were specific for men with cancer. Most of the guidelines were from European (35.3%) or North Americans countries (29.4%); 2 were written by specialized GDGs (11.7%), only one guideline was funded with public resources. The most frequent guideline development methodology applied was the expert panel (52.9%). The AGREE II domains with the highest score were editorial independence (median score 5.25) and clarity of presentation (median score 5). Five guidelines were considered of high quality according to their methodological rigor, which were developed by: Cancer Care Ontario-2016 (87.5%), European Association of Urology-2018 (75%), American Urological Association-2018 (71.2%) American College of

Physicians-2009 (67.9%) and the Japanese Society for Sexual Medicine (66.1%) (Table 1). There was no association between the quality of the guidelines and the characteristics of the GDGs.

Conclusion: There are few CPGs for erectile dysfunction that fulfill the AGREE II international standard, putting at risk the clinical practice of their users. Most of the guidelines were developed by scientific societies with own funds.

Policy of full disclosure: None

PS-08-005

THE RELATIONSHIP BETWEEN DEPRESSIVE SYMPTOMS AND ERECTILE DYSFUNCTION ACROSS DIFFERENT AGES: WHICH PATIENTS DESERVE MORE CLINICAL ATTENTION?

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Objective: Assess the risk of reporting either depressive symptoms or undiagnosed clinical depression according to different ages in men presenting for erectile dysfunction (ED).

Methods: Complete data from 781 men with ED as their primary complaint at a single-center outpatient clinic between 2005 and 2018 were analyzed. Patients with a previous diagnosis of depression were excluded. All patients completed the International Index of Erectile Function-Erectile Function (IIEF-EF) and the Beck Inventory for Depression (BDI) to assess EF, depressive symptoms (DSy, defined as BDI≥11) and undiagnosed clinical depression (BDI≥16). Logistic regression analyses were used to assess the association between baseline IIEF-EF, age and the risk of DSy; interaction terms were introduced to check the association between age and IIEF-EF scores. The association between IIEF-EF, age and the risk of DSy was displayed graphically.

Results: Median (IQR) baseline age and IIEF-EF were 50 (38-59) years and 18 (8-26), respectively. The majority of patients [637 (82%)] had Charlson Comorbidity Index (CCI)=0. Scores suggestive for DSy and clinical depression were observed by 198 (25%) and 86 (11%) patients, respectively. At MVA, both age (OR: 0.95; p<0.0001) and IIEF-EF (OR: 0.91; p=0.003) were associated with the risk of having DSy, after adjusting for CCI and BMI. The interaction term suggested that age, IIEF-EF and the risk of depression are significantly correlated (p=0.03) (Figure 1): patients <30 years had more than 50% probability of DSy, compared to a probability lower than 20% in men over 65 years. **Conclusion:** One in four patients with ED depicted scores suggestive for DSy, with one in ten showing scores for undiagnosed clinical depression. Younger men emerged to be at higher risk for DSy. The comorbid condition of either DSy or undiagnosed clinical depression with ED supports the relevance of an integrative psychosexual approach in all young men.

Policy of full disclosure: None

PS-08-006

SERUM HOMOCYSTEINE LEVELS IN MEN WITH AND WITHOUT ERECTILE DYSFUNCTION: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Objective: Elevated levels of serum homocysteine (Hcy) have been associated with cardiovascular diseases and endothelial dysfunction, conditions closely associated with erectile dysfunction (ED). This meta-analysis was

aimed to assess serum Hcy levels in subjects with ED compared to controls in order to clarify the role of Hcy in the pathogenesis of ED.

Methods: Medline, Embase, and the Cochrane Library were searched for publications investigating the possible association between ED and Hcy. Results were restricted by language, but no time restriction was applied. Standardized mean difference (SMD) was obtained by random effect models. This study is registered with Prospero registration number CRD42018087558.

Results: A total of 9 studies were included in the analysis with a total of 1320 subjects (489 subjects with ED; 831 subjects without ED). Pooled estimate was in favor of increased Hcy in subjects with ED with a SMD of 1.00, 95% CI 0.65–1.35, $p < 0.0001$. Subgroup analysis based on prevalence of diabetes showed significantly higher SMD in subjects without diabetes (1.34 (95% CI 1.08–1.60)) compared to subjects with diabetes (0.68 (95% CI 0.39–0.97), $p < 0.0025$ versus subgroup w/o diabetes).

Conclusion: Results from our meta-analysis suggest that increased levels of serum Hcy are more often observed in subjects with ED; however, increase in Hcy is less evident in diabetic compared to nondiabetic subjects.

Policy of full disclosure: None

PS-08-007

THE FINDINGS OF POLYSOMNOGRAPHIC AND NOCTURNAL PENILE TUMESCENCE TESTING IN MEN WITH STUTTERING PRIAPISM



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Objective: Men with stuttering priapism often experience almost daily prolonged and painful sleep-related painful erections. The aim of this study is to describe the polysomnographic and Nocturnal Penile Tumescence findings in men with Stuttering Priapism (SP).

Methods: A prospective cohort study of 20 men that attended a tertiary andrology unit between 2015 and 2017. Participants underwent full overnight polysomnography (NOX®) with simultaneous nocturnal penile tumescence (NPT) (Rigiscan®) recording. Each patient also completed a Pittsburgh Sleep Quality Index (PSQI), International Index of Erectile (IIEF), Priapism Index Profile and SF36 Quality of life questionnaire. Polysomnography was reported by independent sleep technicians and verified by a sleep physician.

Results: The mean \pm SD age of the participants was 37.85 \pm 10.50 years. The primary complaint of men with SP is often sleep dysfunction. The mean \pm SD PSQI score of the participants was 7.94 \pm 3.06 (A score of >5 indicates poor sleep quality). The mean \pm SD sleep duration in the participants was 5.25 \pm 1.77 hours. The mean SD of sleep efficiency (time asleep/time spend in bed * 100) was 66.35% \pm 22.66% ($>85\%$ considered normal). Sleep fragmentation was seen in 75% of the men and the mean number of awakenings from REM sleep was 1.9 \pm 1.63 episodes for each participant. The mean SD amount of time awake after sleep onset was 163.05 \pm 97.85. There was no evidence of sleep-disordered breathing (SpO2 94.6 \pm 1.45%) or cardiovascular abnormalities (heart rate of 60 \pm 6.60 bpm). There also appears to be an increased prevalence of sexual dysfunction with 7 of the 20 participants reporting no sexual activity in the last 4 weeks and 5 of the remaining 13 men reporting IIEF-EF scores of <14 . Men with SP also appeared to have a reduced health-related quality of life with reduced scores in all domains of the SF36 questionnaire.

Conclusion: Men with SP appear to experience prolonged and severe sleep dysfunction. Furthermore, the prevalence of sexual dysfunction and reduced quality of life also appears to be greater in men with SP. A multi-disciplinary approach including sleep physicians, Urologists and Haematologists in men with Sickle cell disease is recommended.

Policy of full disclosure: None

PS-08-008

CLINICAL CHARACTERISTICS OF MEN COMPLAINING OF PREMATURE EJACULATION TOGETHER WITH ERECTILE DYSFUNCTION: A CROSS-SECTIONAL STUDY



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Objective: Premature ejaculation (PE) is present in up to 30% of men with erectile dysfunction (ED). To assess the clinical features of men complaining of both ED and PE (ED-PE) as compared to men reporting only ED or PE. **Methods:** A consecutive series of 4024 men (mean age 51.2 \pm 13.2 years) consulting for sexual dysfunction was studied. The population was categorized into ED-only (n=2767;68.8%), PE-only (n=475;11.8%) and ED-PE (n=782;19.4%). Sexual symptoms were evaluated using the structured interviews SIEDY and ANDROTEST. Penile color Doppler ultrasound (PDCU) parameters were also assessed.

Results: When compared to PE alone, ED-PE reported more sexual complaints, including impaired morning erections (OR=5.8[4.1;8.3]), decreased sexual desire (OR=2.6[1.8;3.7]), decreased ejaculate volume (OR=2.7[1.8;4.0]) and reduced frequency of sexual intercourse (OR=1.4[1.0;2.0]). Conversely, ED-PE and ED-only men had a similar prevalence of sexual symptoms. In ED-PE men, the characteristics of ED were similar to ED-only men, whereas the characteristics of PE were milder than in PE-only men. ED-PE men had a significantly higher prevalence of hypertension, diabetes and cardiovascular (CV) diseases (OR=1.8 [1.1;3.0], 2.7[1.3;5.6] and 2.7[1.1;6.5], respectively) than PE-only subjects. Moreover, ED-PE men showed worse dynamic peak systolic velocity at PDCU (B= -12.0[-17.7;-6.2]) and a greater 10-year estimated CV risk (B=3.8 [2.5;5.1]) than PE-only patients. Conversely, comorbidities and PDCU parameters were similar in ED-PE and ED-only men.

Conclusion: ED-PE patients present several similarities with those consulting only for ED, whereas their characteristics are different from PE only men. In agreement with the guidelines, our Results confirm that ED-PE men might be considered (and managed) primarily as patients with ED.

Policy of full disclosure: None

PS-08-009

POST-COITAL DYSPHORIA: A KNOWLEDGE SURVEY IN THE ITALIAN MALE POPULATION



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Objective: Aims of the study are: - Investigate the presence of post-coital dysphoria (PCD) in the male population - Investigate possible correlations between PCD and socio-demographic data, sexual habits and other pathologies (organic or functional) - Investigate possible correlation between PCD and other male sexual dysfunctions - Investigate the patient's subjective experience with PCD.

Methods: An anonymous survey was completed online by men over 18 years old. The survey consists of: socio-demographic data, habits and sexual experiences data, known pathologies data, questions on subjective experience, IIEF-15, PEDT. The "chi square" test was used to verify the statistical validity.

Results: We enrolled 196 men between 18 and 76 years old. The 37.2% of participants suffered from PCD. Among these: 52% have a fixed partner, 8% have had previous abuses, 24% are symptomatic for erectile dysfunction and 26% for premature ejaculation. Men with PCD suffer statistically significantly more frequently from premature ejaculation ($p = 0.0029$) and erectile dysfunction ($p = 0.031$). No significant differences were found in the two groups about religion, education, actual and past relationship and broodiness. The main experiences declared are "sense of emptiness" (40.5%), sense of guilt" (17.5%), "perception of low interest of the partner" (17.5%) and "concern about performance" (14.8%).

Conclusion: The obtained data agree with the few data found in the literature. Male post-coital dysphoria is a very common but still gained few

attention in researches. In the future we will study the association between PDC and other individual psychological features (attachment style, personality traits, alexithymia), relational (type of couple, partner characteristics, feelings of guilt) and sexological (body experience, erotic imaginary).

Policy of full disclosure: None

PS-08-010

VITAMIN D STATUS IS ASSOCIATED WITH SEXUAL FUNCTION IMPAIRMENT: PRELIMINARY FINDINGS FROM A CROSS SECTIONAL STUDY

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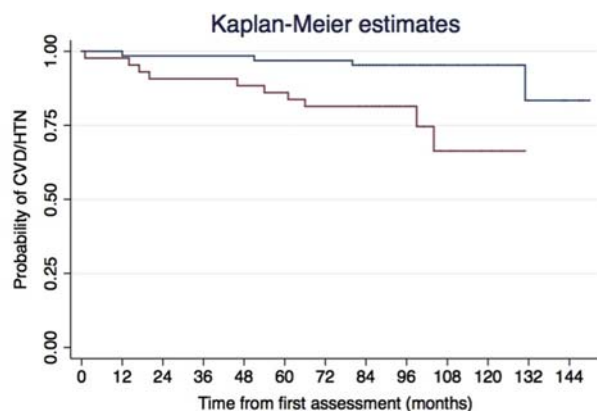
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Objective: Assess the association between vitamin D (vitD) levels, sexual functioning and depressive symptoms in a cohort of men seeking medical help for erectile dysfunction (ED) as their primary complaint, without any known psychiatric disorders.

Methods: Data from 171 men were analyzed. Comorbidities were scored with the Charlson Comorbidity Index (CCI). Patients completed the IIEF and the Beck Depression Inventory (BDI). Circulating hormones and VitD were measured in every patient [deficiency for vitD levels <20 ng/mL (group A); vitD insufficiency for vitD levels between 20 and 30 ng/mL (group B); normal level for vitD >30 ng/mL (Group C)].

Results: Overall, 68 (39.8%), 62 (36.3%) and 41 (24.0%) patients were in group A, B and C, respectively. Groups were comparable for age, BMI, CCI, smoking and alcohol habits and sex steroids. IIEF-EF domain score was lower in group A than in group B ($p=0.04$) and group C ($p<0.001$). EF domain was also lower in group B than group C ($p=0.03$). Severe ED was found in 59.3% vs. 25.9% vs. 14.8%, in group A, B and C, respectively ($p<0.001$). Group A patients reported lower scores of IIEF-sexual desire ($p<0.01$) and IIEF-orgasmic function (0.03) than those in group C. Similarly, patients in group A and B had lower BDI scores than men in group C (all $p\leq 0.03$). vitD was inversely correlated with BDI scores ($p<0.01$) and positively correlated with IIEF-EF scores ($p<0.001$). At MV linear regression analysis age, BDI, group A and group B (all $p\leq 0.04$) vs. group C, were significantly associated with IIEF-EF severity, after accounting for BMI, CCI, total testosterone, smoking and alcohol status. Conversely, only IIEF-EF ($p=0.03$) was associated with BDI score after accounting for age, BMI, CCI, testosterone levels and vitD status.

Conclusion: Lower vitD levels are associated with sexual functioning impairment. The severity of sexual dysfunction correlates with the degree of



hypovitaminosis D. vitD levels are also inversely correlated with BDI scores. Policy of full disclosure: None

PS-08-011

LONGITUDINAL RISK OF DEVELOPING CARDIOVASCULAR DISEASES AMONG PATIENTS WITH ERECTILE DYSFUNCTION: WHICH PATIENTS DESERVE MORE ATTENTION?

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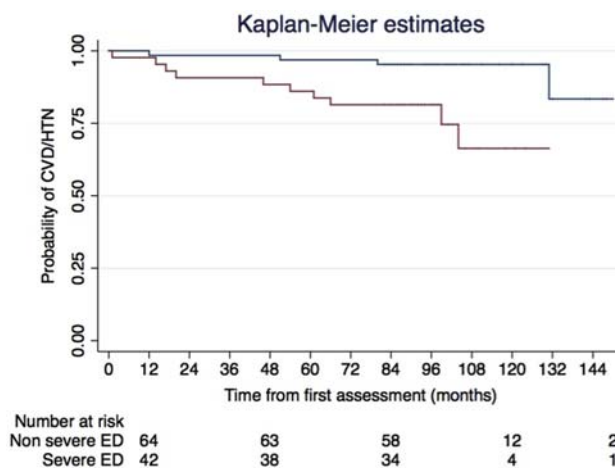
Objective: Erectile dysfunction (ED) is widely considered an early manifestation of cardiovascular diseases (CVD), sharing similar risk factors. We sought to identify those patients at higher risk of further developing CVD and/or hypertension (HTN) over time.

Methods: Complete data of 108 consecutive patients presenting between 2005-2011 with ED as their primary complaint were analyzed. All patients were free from CVD and HTN at baseline. Patients completed the International Index of Erectile Function (IIEF) at baseline. Patients were followed every 6 months with clinical assessment or phone interview. Kaplan-Meier analyses estimated the probability of developing CVD and HTN over time. Cox-regression models were used to test the association between patient baseline characteristics (age, Charlson Comorbidity Index (CCI), baseline IIEF-EF, ED severity, alcohol intake, smoking), PDE5i response and the risk of developing CVD/HTN.

Results: Of all, 43 (40%) patients showed IIEF-EF scores suggestive of severe ED; 37 (39%) and 59 (61%) were non responders and responders to PDE5i, respectively. ED Patients with ED showed 15% (95% CI: 9-27) risk of further developing CVD/HTN at 10 years. Those with severe ED had a higher risk of developing CVD 34% ($p=0.03$; 95% CI: 17-59) at 10-year as compared with patients with mild to moderate ED (5% (95%CI: 2-14; Figure 1). At univariate cox regression analysis, severe ED (HR 4.62, 95% CI: 1.43, 14.89, $p=0.01$) and baseline IIEF-EF score (HR 0.92, 95% CI: 0.86, 0.99, $p=0.02$) were associated to the risk of CVD/HTN overtime. Conversely, age and being non-responders to PDE5i (HR 0.92, 95%CI: 0.32, 2.68, $p=0.9$) were not associated to a risk of CVD/HTN over time.

Conclusion: Patients with severe ED and lower baseline IIEF-EF have more than 30% risk of developing CVD and HTN in 10-years time. Those patients may benefit from medical preventive strategies to lower the risk of CV events and HTN.

Policy of full disclosure: None



Kaplan-Meier probability of developing CVD and HTN over time

HP-01-001

SIMVASTATIN AND THE RHO-KINASE INHIBITOR Y-27632 PREVENT MYOFIBROBLAST TRANSFORMATION IN PEYRONIE'S DISEASE-DERIVED FIBROBLASTS VIA INHIBITION OF YAP/TAZ NUCLEAR TRANSLOCATION.



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Objective: To uncover anti-myofibroblast (MFB) properties of Rho-kinase inhibitor (compound Y-27632) and simvastatin in an in vitro Peyronie's disease model. It is a sexually debilitating disease caused by an irreversible fibrotic plaque in the penile tunica albuginea (TA). Treatment is limited to surgically restoring anatomical shape. Evidence for effective medical treatment is lacking.

Methods: Human fibroblasts were isolated from surgically obtained TA-tissue from PD-patients. To induce MFB status, cells were stimulated with 3ng/mL TGF- β 1. Increasing doses of Y-27632 and simvastatin were added. RT-qPCR was used to assess mRNA expression of alpha-smooth muscle actin (α -SMA), collagenIII, elastin and CTGF after 72 h. WB was used to quantify α -SMA protein contents and IF visualized MFB differentiation by staining for α -SMA after 72 h. Resazurin-based assay was performed to assess cell viability. A mechanistic study was performed using IF staining for YAP/TAZ nuclear translocation.

Results: After 72 h of stimulation a 6-to10-fold upregulation of α -SMA could be observed. When treated with Y-27632 and simvastatin, the α -SMA, collagen III, elastin and CTGF mRNA expression was impeded. Additionally, it showed a twofold increase in α -SMA protein expression, which was reversed to non-stimulated levels after both treatments. Using IF, stimulated cells were identified as MFB (α -SMA+, Vim+) as opposed to the non-stimulated, Y-27632- and simvastatin-treated cells (α -SMA-, Vim+). The resazurin-based assay confirmed that cell viability was uncompromised when administering the drugs. Upon stimulation with TGF- β 1 there was a nuclear translocation of YAP/TAZ, which was prevented by adding respective compounds.

Conclusion: Transformation of fibroblasts into the contractile and extracellular matrix-producing myofibroblasts occurs after TGF- β 1 stimulation. In our experiments Rho-kinase inhibition and simvastatin treatment were shown to prevent this in TGF- β 1 stimulated cells on an RNA and protein level through the inhibition of YAP/TAZ nuclear translocation. Y-27632 and simvastatin could become a novel treatment option in the early treatment of PD.

Policy of full disclosure: None

HP-01-002

INTRACAVERNOSAL SILDENAFIL RECOVERED THE PROGRESSION OF ERECTILE DYSFUNCTION AFTER WITHDRAWAL OF 5-ALPHA REDUCTASE INHIBITOR IN RATS



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Objective: Benign prostatic hyperplasia (BPH) and erectile dysfunction (ED) are common problems affecting the quality of life among aging men. In addition, the relationship of 5-alpha reductase inhibitor (SARI) treatment and ED has been reported. A previous study showed that discontinuation of dutasteride did not improve erectile responses. This study aimed to

determine the effect of intracavernosal sildenafil on erectile dysfunction associated with SARI therapy in a rat model.

Methods: Thirty adult male Sprague-Dawley rats were randomized into three groups: (i) control (N=10); (ii) 6-week dutasteride treatment (0.5mg/rat/day, in drinking water, N=10); and (iii) 6-week dutasteride treatment followed by a 4-week washout period (N=10). Erectile responses were evaluated after 10 weeks on intracavernosal injection of sildenafil (0.3mg/kg) to anesthetized rats and data expressed as intracavernosal pressure (ICP)/mean arterial pressure and total ICP. The relaxant and contractile responses of corpus cavernosum strips were obtained in vitro studies.

Results: Prostate weight was significantly reduced in the 10-week dutasteride treatment group when compared with the control group (P<0.001). In vivo erectile responses in the 10-week treatment group were significantly decreased compared with controls (P<0.001), which was partially returned after the 4-week washout period (P<0.01). Surprisingly, sildenafil restored diminished ICP responses in all treatment groups. While, acetylcholine and electrical field stimulation (EFS) induced relaxations were decreased in treatment groups (P<0.001), relaxant responses to sodium nitroprusside and sildenafil were unaltered in all groups. EFS and phenylephrine-induced contractile responses were significantly enhanced in the 10-week dutasteride treatment group. Increased responses were recovered in the washout group. **Conclusion:** The cessation of dutasteride did not ameliorate in vivo erectile responses and endothelial and nitergic relaxant responses, while the cavernous injection of sildenafil resulted in improvement in the detrimental effect of SARI treatment related to ED. Further investigations should extend our knowledge about the combination of sildenafil and SARIs can be a strongly beneficial option for the treatment of BPH and ED.

Policy of full disclosure: None

HP-01-003

EXPRESSION OF GENES ENCODING FOR ENDOPEPTIDASE ENZYMES (ENPES) AND PEPTIDE BINDING RECEPTORS IN THE HUMAN VAGINA # COMPARISON TO PENILE ERECTILE TISSUE



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Objective: Bradykinin (BK), the vasoactive intestinal polypeptide (VIP) and C-type natriuretic peptide (CNP) have been proposed to play a role in the female sexual response cycle. These peptides are supposed to act via the binding to respective receptors, thereby exerting relaxation of genital vascular and non-vascular smooth muscle. This study aimed to characterize by means of molecular biology the expression of messenger ribonucleic acid (mRNA) encoding for VIP-, natriuretic peptides (NPs)- and BK-binding receptors and peptide degrading endopeptidase enzymes (EnPE) in human vaginal tissue and penile corpus cavernosum (CC).

Methods: Using the reverse transcriptase polymerase chain reaction (RT-PCR), the expression of mRNA transcripts encoding for the following receptors was investigated in the human vaginal wall (devoid of epithelium) and the CC: VIP receptors VIPR1 and VIPR2, the natriuretic peptide receptors NPR A-C, and the BK receptor 2 (B2R), as well as the EnPEs SEP, NEP, ECE-1 and XCE.

Results: RT-PCR analysis revealed the expression of mRNA encoding for the receptors VIPR1 and VIPR2, the NPR subtypes A and B and the B2RK in the human vagina. In contrast, in the CC, the expression of genes encoding for VIP receptor VIPR2 and the BK receptor B2R was registered. In the CC and vaginal wall, a predominant expression of the EnPEs ECE-1

(CCP: 24000 copies/ng mRNA, vagina: 2190 copies/ng mRNA) was registered, whereas the expression of NEP, SEP and XCE in the tissues was 8- to 760-fold lower.

Conclusion: At the mRNA level, peptide receptors specifically binding VIP, CNP and BK are expressed in the human vagina. The findings are in support of a potential role of VIP, NPs and BK in the control of the arousal process in women. It remains to be investigated whether receptor down-regulation or reduced local synthesis of VIP/NPs/BK may contribute to the pathophysiology of female sexual arousal disorder.

Policy of full disclosure: None

HP-01-004

THE EFFECTS OF ANTIFIBROTIC AGENT-PIRFENIDONE ON PENILE CAVERNOUS FUNCTION IN EXPERIMENTAL ISCHAEMIC PRIAPISM-INDUCED RAT MODEL

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Objective: Aim of the study was to assess the impact of an antifibrotic and anti inflammatory agent-pirfenidone in an experimental ischemic rat priapism model.

Methods: 0Forty-eight male Albino-Wistar rats were randomized into four groups (n=12 in each group): Group-1 (non-priapism, no-medication), Group-2 (one-hour priapism, no-medication), Group-3 (one-hour priapism, six-weeks followup, no-medication), and Group-4 (one-hour priapism, six-weeks pirfenidone). Erection model was created by electrical stimulation of the cavernous nerve. The intracavernosal pressure (ICP) and the blood pressure were recorded (Fig. 1a). Degree of the fibrosis were evaluated as (+), (++), (+++), and (++++). Masson's trichrome stain. Malondialdehyde (MDA) and reduced glutathione (GSH) levels were measured by spectrophotometric method. Statistical analyses were performed with SPSS program for windows.

Results: Group-2 and 3 showed marked cavernosal fibrosis following the formation of an ischemic priapism model. In contrast, Group-4 showed significant decrease in fibrosis compared to Group-3 (Fig. 1b). The mean basal ICP (BICP), maximum ICP (MICP), mean ICP (MeICP), the



difference between MICP and BICP (DICP), area under curve (AUC), and the ratio of MeICP/ mean intraarterial blood pressure (MIBP) were recorded. In Group-2, all these parameters showed significant decrease compared to Group-1 (p<0.05). The mean MICP, MeICP and the MeICP/MIBP ratios significantly decreased in Group-3 compared to Group-1 (p<0.05). The mean BICP, MICP, MeICP, DICP, AUC, and MeICP/MIBP values were similar in Group-1 and 4 (p>0.05) (Fig. 1c). Group-4 showed a statistically significant decrease in cavernosal mean MDA levels compared to Group-3, (p<0.05). Group 4 showed a statistically significant increase in the mean GSH levels compared to Group-3 (p<0.05) (Fig. 1d).

Conclusion: In this study, the pirfenidone molecule has been shown to reduce fibrosis and, to improve an increase in the intracavernosal pressure in an experimentally induced ischemic priapism model. Our findings suggest that pirfenidone may offer new possibilities in the management of ischemic priapism.

Policy of full disclosure: None

HP-01-005

REGULATION OF THE RELAXATION OF THE CORPUS CAVERNOSUM BY A NEAR-INFRARED LIGHT-CONTROLLED NO DONOR IN IN VIVO AND IN VITRO STUDIES

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Objective: In our previous study, we developed some light-controlled NO donors. However, the low tissue permeability of those NO donors are problem. Thus, to improve tissue permeability, we developed a novel near-infrared light-controlled NO donor, NORD-1. In this study, we investigated whether NORD-1 and light irradiation could control the relaxation of the penile corpus cavernosum by conducting in vitro and in vivo studies using rats.

Methods: [In vitro study] An isometric tension study was performed using the penises with tunica albuginea of intact Wistar-ST rats injected with NORD-1 or vehicle in the penis. The response to light irradiation was examined after precontraction with noradrenaline. [In vivo study] Intracavernous pressure (ICP) was measured to evaluate erectile function, under electrostimulation of the cavernous nerve (1, 2, 4, and 8 Hz) before and after injection of NORD-1 to the penile corpus cavernosum, with or without light irradiation.

Results: [In vitro study] a relaxing response to light irradiation was observed in the penises with tunica albuginea injected with NORD-1, but not in those injected with vehicle. The strength of the relaxation depended on the strength of the light irradiation. [In vivo study] The increased ICP by

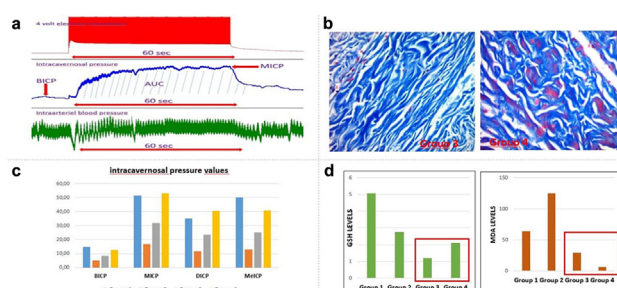
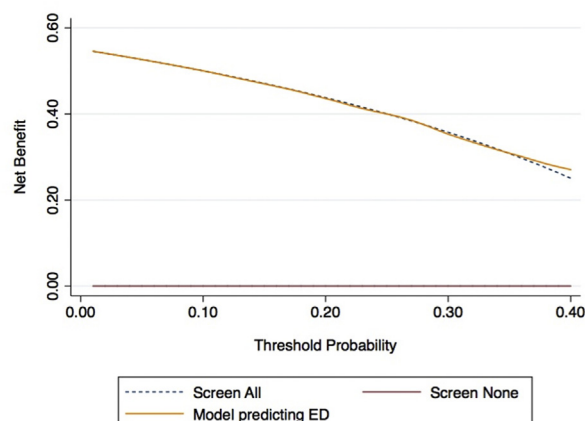


Figure 1. (a) The intracavernosal pressure (ICP) (blue line) and the blood pressure (green line) were recorded simultaneously for 60 sec. by 4 volt electrical stimulation (red line). (b) Masson's trichrome stain was used to evaluate the degree of fibrosis. Increased collagen fibers (blue) and reduced smooth muscle fibers (red): <30% collagen = (+); 31%-50% collagen = (++); 51%-70% collagen = (+++), and >70% collagen = (++++). Group-4 (++) showed significant decrease fibrosis compared to Group-3 (++++). BICP: Basal intracavernosal pressure, MICP: Maximum intracavernosal pressure, AUC: Area under curve.

LUTS-ED



electrostimulation under light irradiation and NORD-1 treatment was obviously enhanced strength-dependently. Before the NORD-1 treatment, light irradiation did not change the increase in ICP.

Conclusion: NORD-1 treatment can control the enhancement of the relaxation of the penile corpus cavernosum and erection by near-infrared light irradiation, which suggests that NORD-1 and light irradiation may be a useful therapy for erectile dysfunction.

Policy of full disclosure: None

HP-01-006

EMBRYONIC STEM CELL-DERIVED EXOSOME RESCUES ERECTILE FUNCTION BY PENILE ANGIOGENESIS AND NEUROVASCULAR REGENERATION IN THE BIABETIC MOUSE

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Objective: To examine the effectiveness of embryonic stem cell (ESC)-derived exosomes (ESC-Exo) in restoring erectile function in diabetic mice. **Methods:** Diabetes was induced by intraperitoneal injection of streptozotocin into 8-week-old C57BL/6 male mice. At 8 weeks after the induction of diabetes, the animals were distributed into 7 groups: control nondiabetic mice and diabetic mice receiving two successive intracavernous injections of HEPES-buffered saline (HBS, days -3 and 0; 20 μ L) or ESC-Exo (days -3 and 0; 0.1 μ g, 0.5 μ g, 1 μ g, 2 μ g, or 5 μ g in 20 μ L of HBS, respectively). Two weeks after treatment, we measured erectile function by electrical stimulation of the cavernous nerve. The penis was then harvested for histological and biochemical studies. We also examined the effects of ESC-Exo in primary cultured mouse cavernous endothelial cells (MCEC) and pericytes (MCP) in vitro; and in cultured aortic ring and major pelvic ganglion (MPG) ex vivo. **Results:** Intracavernous administration of ESC-Exo induced complete recovery of erectile function in the diabetic mice at a concentration of 1 μ g/20 μ L, whereas ESC partially restored erectile function. ESC-Exo induced sig-

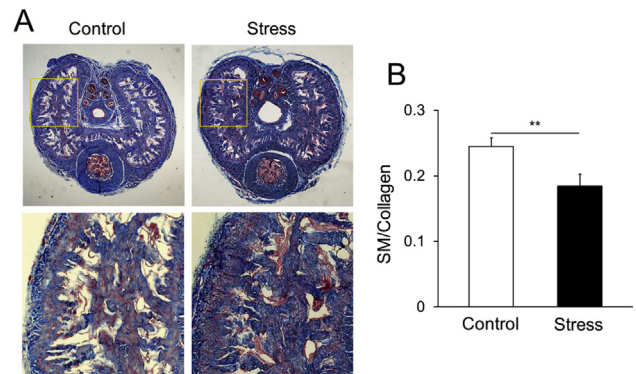


Figure. (A) Representative rat penises stained with Masson trichrome. SM is stained red and collagen is stained blue. Pictures on the top are whole penises. Those on the bottom are enlarged view of left side corpus cavernosum. (B) SM/Collagen ratios in rat corpus cavernosum were evaluated. Data are reported as mean \pm standard error of the mean (n=5-6 per group). ** P < 0.01 using Student's t-test. SM: smooth muscle.

nificant restoration of cavernous contents of endothelial cells, smooth muscle cells, and pericytes in the diabetic mice in vivo; promoted tube formation in primary cultured MCEC and MCP under high-glucose condition in vitro; and accelerated microvascular and neurite sprouting from aortic ring and MPG under high-glucose condition ex vivo, respectively. Western blot analysis revealed that ESC-Exo induced the expression of angiogenic and neurotrophic factors, and activated cell survival and proliferative factors.

Conclusion: ESC-Exo successfully restored erectile function through enhanced cavernous angiogenesis and neural regeneration in diabetic mice. Further studies are needed to clarify the mechanism by which ESC-Exo induces neurovascular repair.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-02 Psychosexual gender and sexology

HP-02-001

THE RELATION BETWEEN SEXUAL DYSFUNCTION AND SEXUAL PLEASURE IN TRANSGENDER INDIVIDUALS: RESULTS FROM THE ENIGI FOLLOW-UP STUDY

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Objective: Recently, research attention for the sexual life of individuals with Gender Dysphoria (GD, also referred to as transgender individuals), is increasing. Research has shown that the prevalence rates of sexual dysfunction (including the experience of distress) in transgender persons having received Gender Confirming Interventions (GCI) were higher compared to the general population. However, less is known on the impact of having one or more sexual dysfunctions on sexual pleasure. Further, it is possible that



this relationship differs between individuals in different treatment trajectories (e.g. no medical treatment versus only hormone treatment versus hormone treatment and genital surgery), and also between individuals with fulfilled and continuing treatment intentions.

Methods: This study is part of the ENIGI (European Network for the Investigation of Gender Incongruence) follow-up study. An online survey was presented to transgender persons four to six years after first clinical contact in the gender clinics of Amsterdam, Ghent or Hamburg. The participants filled in the Amsterdam Sexual Pleasure Index (ASPI) (Werner, Gaasterland, van Lunsen & Laan, in press), a recently developed questionnaire to measure sexual pleasure, and answered a broad range of questions about sexual dysfunctions (including the distress criteria). 560 individuals participated; 523 individuals filled out data on sexual functioning.

Results: We hypothesize that dysfunctions related to initiating sexual contacts will have the strongest negative association with sexual pleasure and will mostly be present in individuals who did not have genital gender affirming operations. Furthermore, we hypothesize that the association between

dysfunction and sexual pleasure will be stronger in individuals without further treatment intentions than in individuals with further treatment intentions.

Conclusion: Conclusions can not be drawn yet.

Policy of full disclosure: None.

HP-02-002

INVESTIGATION OF SEXUALLY TRANSMITTED INFECTION AMONG TAIWAN'S SENIOR CITIZENS

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Objective: Implementing Sex education in Taiwan has always been difficult due to the conservative atmosphere in Taiwan's society. Therefore, most of the programs only focus on younger generations or adults nowadays, teaching contraception and how to use condoms. Since sex is a life-long activity throughout the human lifespan, seniors should not be ignored. More than 61% elders claim that they still have an active sexual life. Forty Four percent of females and 75 % of males claimed that they still have sexual desire. Since there was not sufficient information related to sex education back when they were younger, the purpose of this study is to explore seniors' sexual behaviors and their rates of STD's (Sexually Transmitted Diseases)

Methods: Center Disease Control. data was collected and analyzed from 2010 to 2017 focusing on STI emphasized on syphilis, gonorrhea , HIV and AIDS.

Results: In the overall population, STI rates have continuously increased over the years, especially in those between 25-34 years old. However, for the age category of 60 and above, rate of syphilis is higher than other age groups, while gonorrhea, HIV and AIDS rates remain low. The age group of 60 and above makes up 23%-28% of all syphilis infections among all age groups (from 0-70+yrs), which is also the highest of any age group. Surprisingly, the age group of those 70 and above makes up 70% of the total syphilis infections for all those more than 60 years old.

Conclusion: Due to aging, there are a lot of physical, psychological and social changes in senior citizens. Most people think seniors are not sexually active. Senior citizens themselves don't think they need protection from sexually transmitted diseases, as they believe they have a lower chance of infection because of their declining body functions. A regular sex life for senior citizens can help maintain not only a higher quality life, but also improve their physical condition and self-confidence. Therefore, sex should be encouraged among senior citizens with adequate sex education including how to prevent getting infected with sexually transmitted diseases.

Policy of full disclosure: None

HP-02-003

ATTACHMENT STYLE, SEXUAL ORIENTATION AND BIOLOGICAL SEX IN THEIR RELATIONSHIP WITH THE GENDER ROLE

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Objective: We aim to evaluate the attachment style, sexual orientation and biological sex in their relationship with the gender role, i.e., masculinity and femininity.

Methods: We recruited a convenience sample of 344 (females=207; males=137; mean age=26.33±6.59) subjects and we administered them a psychometric protocol composed of Bem Sex Role Inventory (BEM), Attachment Style Questionnaire (ASQ) and the Kinsey Scale to categorize the sexual orientation. We performed a further bi-categorization based on

the first two points of Kinsey Scale (heterosexuality) and the other six points (non-heterosexuality).

Results: According to our categorization, we found that 38 individuals declared to be non-heterosexuals and 306 heterosexuals. We found no statistically significant differences in the scores referred to attachment styles and gender role between heterosexuals and non-heterosexuals. Regression analysis revealed that confidence and relationship as secondary of ASQ have a predictive role towards a higher score of masculinity ($\beta=.201$; $p=.000$ and $\beta=.209$; $p=.000$, respectively), while need of approval has a negative role on it ($\beta=-.232$; $p=.001$). Moreover, we found that to be a male is predictive for masculinity ($\beta=.206$; $p=.0000$). Also, femininity is predicted by confidence scale of ASQ ($\beta=.170$; $p=.002$), and need of approval ($\beta=.154$; $p=.03$). Instead, relationship as secondary plays a negative role on femininity ($\beta=-.194$; $p=.0001$). None association between non-heterosexual orientation and gender role was found.

Conclusion: We demonstrated that a secure base of attachment (confidence scale of ASQ) is fundamental for development and manifestation of both masculinity and femininity. On the contrary, reverse aspects of insecure attachment style characterize masculinity and femininity. Masculinity is mostly linked to relationship as secondary, while femininity is linked to need of approval. Moreover, if to be a male is a further element at support of masculinity, sexual orientation is not associated to the gender role.

Policy of full disclosure: None

HP-02-004

STUDY ON THE EFFECT OF SYSTEMIC TREATMENT WITH TESTOSTERONE ON CLITORAL HAEMODYNAMIC PARAMETERS IN BASAL CONDITIONS

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Objective: Preclinical studies show that, in the clitoris, testosterone (T) is necessary to maintain a functional contractile and relaxant machinery, which represents the underlying mechanism of the peripheral arousal response. Our aim was to evaluate the effect of systemic treatment with T on clitoral hemodynamic parameters as assessed by clitoral color Doppler ultrasound (CDU).

Methods: In this observational, prospective pilot study, 71 women including 31 menopausal women (43.7%) attending our clinic for sexual symptoms (in particular, sexual arousal disorder) were recruited and treated with transdermal T (approximately 3 mg/die; n=19), intravaginal estradiol (E; cream or tablet; n=9), combined therapy (T+E; n=8) or non-hormonal therapy (local gel, sex or psychiatric therapy, n=35). Clitoral CDU with evaluation of clitoral artery peak systolic velocity (PSV) was performed at baseline and after 6 months of treatment. Our experimental model is designed for basal conditions, in the absence of any sexual stimulation, in order to exclude a central effect of T administration.

Results: A Kruskal-Wallis H test showed that there was a statistically significant difference in clitoral artery PSV among the different groups ($\chi^2(3) = 23.38$, $p<0.0001$). Systemic T treatment was able to significantly increase clitoral artery PSV when compared with non-hormonal treatment ($U=92.00$, $p<0.0001$) and local E ($U=9.00$, $p<0.0001$). In a multivariate analysis, these differences were independent of confounding factors. A significant increase in clitoral artery PSV was found also in patients on combination therapy (systemic T and local E; $p<0.05$ vs. non-hormonal treatment). Specifically, T and T+E combined therapy induced a 47.2% [+16.9 – +73.2] and 38.5% [-7.3 – +84.5] increase in PSV, respectively.

Conversely, patients treated only with local E did not show a significant variation in PSV (percentage of change -24.8 [-37.4 – +4.6]; p=NS vs. non-hormonal treatment).

Conclusion: Systemic T treatment, either alone or combined with local estradiol, positively modulates clitoral blood flow independently of sexual stimulation

Policy of full disclosure: None

HP-02-005

THE ROLE OF LATERAL EPISIOTOMY ON THE EMERGENCE OF SEXUAL DYSFUNCTION IN PRIMIPARAS

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Objective: Episiotomy is an obstetrical procedure which extends the vaginal vestibule during fetal expulsion. The effect of episiotomy on emergence of sexual dysfunction (SD) is quite unexplored. The available data largely support the theory of the negative effect of median and mediolateral episiotomies on the SD. Clinical trial “Effects of lateral episiotomy on the function of pelvic floor and sexual function after vaginal delivery in primiparas” was carried out in University Hospital “Sveti Duh”. One of aims of this research was to investigate the effects of lateral episiotomy on the occurrence of SD.

Methods: Prospective study was conducted and consisted of 2 groups. The first group consisted of women who delivered by lateral episiotomy (n=100) and another group of women who delivered with perineal rupture of lesser degree and intact perineum (n=100). The study included primiparas with singleton pregnancies and spontaneous onset of labor with fetuses in cephalic presentation. Investigations of SD were conducted at 5 and 8 months after delivery by Female Sexual Function Index (FSFI) questionnaire. Parametric and non-parametric analyses were applied. P values < 0.05 were considered to be significant.

Results: No statistically significant differences were found in the total score of the FSFI questionnaire as well as its components on the first as well as on the second examination between the investigated groups. The median of the pain component in the group of episiotomy was 4.8 (3.6-5.6) at the first examination and 5.2 (3.6-6) on the second examination. The median of pain component in the perineal laceration group was 4.8 (3.6-6) on the first examination and 5.2 (4-6) on the second examination. The frequencies of occurrence of sexual dysfunction in both groups were without statistically significant differences after 5 and 8 months after the delivery. It is also noticeable downward trend in women with sexual dysfunction in two time points of research (episiotomy, 48% to 29.2%; perineal lacerations, 42.4% to 33.3%).

Conclusion: The frequency of SD is the same in the lateral episiotomy group as in the lesser perineal lacerations and intact perineum group. Lateral episiotomy has neutral effect on the onset of sexual dysfunction in the primiparas.

Policy of full disclosure: None

HP-02-006

THE PRONENESS TO SEXUAL EXCITATION AND INHIBITION IN MSM AND NON-MSM

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¹Andrzej Frycz Modrzewski, Krakow University, Poland; ²AFM Krakow University, Poland; ³Pomeranian Medical University, Szczecin, Poland; ⁴Opole Medical School, Poland; ⁵IPiN, Warsaw, Poland



Objective: Previous studies has revealed the differences in the levels of sexual excitement (SES) and inhibition (SIS1) according to Dual Control Model of sexual response between groups of heterosexual and homosexual men. In the US population homosexual men were found to score higher on the SES and SIS1 than heterosexual males. Moreover, homosexual men were also found to report more common sexual dysfunctions, such as erectile dysfunctions, premature ejaculation and decreased sexual desire. The aim of this study was to verify that observations in the different culture background.

Methods: 107 men (60 MSM and 47 exclusively heterosexual men) filled an internet survey which consisted of Polish version of Sexual Inhibition/ Sexual Excitation Scales (SIS/SES) and supplementary survey. MSM group consisted of men who identified themselves as gay, bisexual or any other variant. Men from comparative group declared having sexual contacts only with women.

Results: General tendency to react with sexual excitation (SES) and general inhibitory tone (SIS1) seems not to differentiate men who have sexual contacts exclusively with opposite sex and those who also have sex with men (both exclusively and inclusively). MSM group scored higher in the tendency to inhibit sexual response due to the threats related to consequences of sexual fulfilment (SIS2). MSM group complaint more often on diminished sexual desire level, while heterosexual men group more frequently reported problems with premature ejaculation. There were no significant differences in the erectile disorders prevalence.

Conclusion: Our findings showed, that there are no differences in SES and SIS1 in comparison to heterosexual men. Polish MSM show different picture of tendency to react with sexual excitation and inhibition than homosexual men from other countries.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-03 Male sexual dysfunction: Medical treatment

HP-03-001

THE EFFECT OF DAPOXETINE IN THE TREATMENT OF CHRONIC PROSTATITIS COMBINED WITH PREMATURE EJACULATION

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Objective: To determine the effect of dapoxetine in the treatment of PE combined with chronic prostatitis.

Methods: A total of 190 outpatients with acquired PE combined with chronic prostatitis were employed in this study. They were randomly divided into the control group (n=95) and experimental group (n=95). The control group received conventional therapy including α -receptor blocker and antibiotics. The experimental group was given conventional therapy combined with dapoxetine. The Premature Ejaculation Diagnostic Tool (PEDT) and

the National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI) were performed before and 2/4 weeks after treatment to evaluate the symptoms and treatment outcomes.

Results: Before treatment, no significant difference of PEDT and NIH-CPSI scores was found between the two groups. There are no significant correlation between the scores by spearman's correlation ($r=0.145, P=0.061$). After 2 weeks treatment, PEDT and NIH-CPSI scores were all improved in experimental group ($P<0.001$). In the control group, NIH-CPSI scores were improved ($P=0.037$), but PEDT scores were not improved ($P=1.101$). While no difference of the PEDT and NIH-CPSI scores were detected between the two groups ($P=0.22$ and $P=0.60$ respectively). After 4 weeks treatment, PEDT and NIH-CPSI scores were still improved in experimental group ($P<0.001$). Moreover, PEDT and NIH-CPSI scores were also improved in control group ($P<0.001$). Although no significant difference were found between the two groups ($P=0.237$), while the quality of life scores and PEDT scores showed a better improvement than control group ($P<0.001$). No severe side effects were found in this clinical trial.

Conclusion: Four-weeks traditional therapy have curative effect on PE and CP symptoms in CP patients with acquired PE, while dapoxetine combined therapy are much more effective and rapidly than the traditional therapy.

Policy of full disclosure: None

HP-03-004

ESTABLISHING THE SAFETY PROFILE IN SEXUAL PARTNERS OF A NEW TOPICAL GLYCERYL TRINITRATE GEL FOR THE TREATMENT OF ERECTILE DYSFUNCTION



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Objective: MED2005 is a fast-acting, topical, glyceryl trinitrate (GTN) gel for the treatment of erectile dysfunction (ED), applied directly to the glans penis by the male or his partner.¹ As there is potential for transfer to the female partner, the safety of MED2005 in sexual partners was investigated.

Methods: (A) In a 232 ED patient Phase IIA study, adverse events (AEs) were recorded in female partners following the application of 0.2% MED2005 ($n=229$) to the penis before intercourse.¹ (B) A pharmacokinetic study measured GTN absorption by tandem mass spectrometry on penile swabs taken 5 minutes after administration of 0.8% MED2005 to the glans penis ($n=10$). (C) Disruption to the epidermal membrane 2 hours after administration of MED2005 was measured by impedance testing on cadaveric human epidermal tissue and significance compared to commercial lubricants using the Wilcoxon signed rank test.

Results: (A) In over 1003 intercourse events, only 4 mild AEs in females were related to their partners' MED2005 treatment; two cases of headache and one case each of vulvovaginal pruritis and nasopharyngitis. (B) Five minutes after application, an average of 27% of MED2005 remained on the penis, indicating absorption of 73% of the gel. Linear input rates predicted that virtually no MED2005 would remain on the penis 10 minutes after application. (C) Impedance testing showed no significant difference between MED2005 and commercial lubricants on integrity of human epidermal membranes, $p=0.58$ and 0.30 compared to KY warming and Astroglide, respectively.

Conclusion: The available data has shown MED2005 to have a favourable short-term safety profile in female partners. Furthermore, impedance testing suggests that MED2005 shows no increased potential for STI risk in partners compared to commercial lubricants. A Phase III study is underway to assess long-term safety of MED2005 at doses of 0.2–0.6% in 1000 patients and their female partners.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-04 Male sexual dysfunction: Prostate

HP-04-001

EFFECTIVENESS OF EXTRA-SHOCK WAVE THERAPY FOR CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN: A POPULATION-BASED PROPENSITY SCORE ADJUSTED ANALYSIS



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Objective: The treatment of chronic pelvic pain syndrome (CPPS) is still discussed since its multifactorial pathogenesis. Several treatment modalities including antimicrobial drugs, PDE5i, muscle relaxants, α -blockers, biofeedback physical therapy such as monotherapy or combination therapy have been proposed and investigated. Recently, many reports have indicated that extracorporeal shock-wave therapy (ESWT) for CPPS can significantly improve the symptoms of pelvic pain and urination. The aim of the study is to evaluate the effects of combining transperineal ESWT and PDE5i

(tadalafil 5mg daily) versus therapy alone for the treatment of inflammatory CPPS (PDE5i alone).

Methods: From April 2017 to April 2018, 125 consecutive patients were treated with ESWT + therapy or therapy alone. All the patients have a negative sperm and urine culture and negative PVR and stones at the abdomen scan. Adjustment variables consisted of age and IPSS questionnaire at baseline using 1:1 propensity-score matching. Overall, 32 patients were considered subdivided into the following: 16 patients who received ESWT + therapy (group A) and 25 who received therapy alone (group B). Patients were administered ESWT with protocol treatment of one session per week for 8 weeks, 3000 shockwaves with 0.25 mJ/mm² of energy and 5 HZ of frequency, tadalafil 5 mg daily were administered in both group for 8 weeks. **Results:** Overall, the mean age was 52.7 (SD 13.7), mean IPSS was 16.8 (SD 5.37), mean IPSS-QoL was 3.75 (SD 0.9), mean prostate volume was 35.8 (SD 15.4) and mean peak flow was 9.7 (SD 2.3). The mean change of IPSS was -5.75 (SD 4.31) in Group A and -9.81 (SD 5.06) in Group B ($p=0.04$) and the mean change of IPSS-QoL was -1.0 (SD 1.59) and -3.4

(SD 0.63) ($p=0.04$) while the difference for Qmax was not statistically different (-6.8 vs. -6.5; $p=0.7$).

Conclusion: Based on the findings of this a population-based propensity score adjusted analysis ESWT + therapy was superior than therapy alone in ameliorating symptoms and quality of life. Although the design was not a randomized study, the propensity score matching is able to estimate the effect of a treatment by accounting for the covariates that predict receiving the treatment. These translate our findings into clinical practice with high level of evidence but should be confirmed with greater sample size.

Policy of full disclosure: None

HP-04-002

BPH- AND BPHSURGERY-RELATED EJACULATION DISORDERS: RESULTS FROM A PROSPECTIVE OBSERVATIONAL TRIAL



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Objective: The effects of benign prostatic hyperplasia (BPH) and its treatments on ejaculation have been still poorly investigated. The aim of this study is to analyse this issue from a "real life" point of view, through prospective data from a broader, still ongoing, multicentric trial on the effects of BPH surgery on sexual function.

Methods: 244 consecutive patients affected by BPH and candidates for endoscopic surgery at 4 centres in North Western Italy were screened. 74 patients, average age 64.9 years, fulfilled the inclusion criteria (sexually active, normal erectile function) and were enrolled in the study between 9/2016 and 2/2018. 49 underwent bipolar TUR-P and 25 Greenlight laser anatomic vaporization. All patients were studied preoperatively and 4 months after surgery with urological examination, validated questionnaires (IIEF-5, IPSS) and "ad hoc" questions specifically exploring ejaculation function domains (ejaculatory pain, ejaculatory volume and bother related to ejaculation alterations). Statistical analysis: chi – square, T- test.

Results: The average IIEF score was 19.7 and 19.2 pre and after surgery, respectively ($p=0.12$). The average IPSS score decreased from 26.5 to 16.5 ($p<0.05$). No major complications were recorded. 63.5% of the patients reported reduced ejaculatory volume at baseline (all of them were on therapy with alfa-blockers and/or 5ARI); after surgery, their number significantly increased to 78.4% ($p=0.004$); 29.7% of the patients preoperatively and 40.5% postoperatively ($p=0.016$) reported to be highly disturbed by this symptom. 24.3% reported chronic ejaculatory pain (not related to chronic prostatitis) before surgery, while the prevalence of this symptom decreased to 5.4% ($p=0.005$) 4 months after surgery.

Conclusion: Our data confirm that surgery for BPH is frequently responsible for ejaculation alterations, producing a significant psychological bother. We also reported a high prevalence of preoperative painful ejaculation, probably due to the underlying pathology, an often misdiagnosed symptom that showed a postoperative improvement, suggesting a benefit from surgery.

Policy of full disclosure: None

HP-04-003

DEFINITION OF ULTRASOUND REFERENCE VALUES FOR THE ORGANS OF THE MALE GENITAL TRACT: THE EUROPEAN ACADEMY OF ANDROLOGY ULTRASOUND PROJECT ON FERTILE MEN



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Objective: Colour-Doppler ultrasound (CDUS) imaging of the male genital tract (MGT) is an important diagnostic tool in reproductive and sexual medicine, useful, in the latter, in evaluating some organic causes of specific sexual dysfunctions (e.g. prostate-vesicular inflammation underlying premature ejaculation; testicular abnormalities underlying testosterone deficiency-related erectile dysfunction). However, MGT-CDUS still suffers of lack of standardization and often tends to produce subjective and vague diagnoses. This is the main reason why the European Academy of Andrology (EAA) promoted a multicenter study aimed at investigating the CDUS features of the MGT in healthy, fertile men, to obtain "normative" CDUS parameters for the MGT. The primary aim was to evaluate the CDUS features and reference values of the MGT organs in healthy, fertile men. The secondary aim was to correlate the CDUS findings with clinical, seminal and biochemical parameters evaluated within the same CDUS session.

Methods: Study design and Standard Operating Procedures (SOP) are available at <http://www.andrologyacademy.net/studies>. The study was designed as a cohort, multicentric, international, observational study. Eleven EAA Centers joined the project. The main inclusion criteria were: men aged ≥ 18 years, without systemic diseases and/or medications affecting fertility, partners of a pregnant woman or who fathered a child during the last year, following natural conception. The study protocol included the following procedures, performed within the same day: 1)personal and medical history; 2)physical examination; 3)blood samples for determination of hormonal and glyco-metabolic parameters, evaluated in a central lab (including gas chromatography/mass spectrometry for steroid hormones); 4) scrotal and transrectal CDUS evaluated before and after ejaculation; 5)semen analysis (according to the WHO, 2010).

Results: We enrolled 248 healthy, fertile men. Data on 248 scrotal and 188 transrectal ultrasound evaluations are available. CDUS reference values of the MGT in healthy, fertile men as well as correlations between CDUS and clinical, biochemical and seminal parameters are now available.

Conclusion: New knowledge generated by this study will define the impact of MGT-CDUS on reproductive and sexual medicine.

Policy of full disclosure: None

HP-04-004

DOES MASTURBATION HAVE A POSITIVE INFLUENCE ON FUNCTIONAL OUTCOME IN THE POSTOPERATIVE COURSE AFTER RADICAL PROSTATECTOMY?



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Objective: Penile rehabilitation after nerve-sparing radical prostatectomy (nsRP) influences the functional outcome (erectile function and urinary continence) positively. Aim of this study was to evaluate the association between masturbation and the recovery of the functional outcome in patients after nsRP.

Methods: Patients after nsRP (11/2013 – 3/2016) with preoperative International Erectile Function Score-Erectile Function (IIEF-EF) of ≥ 22 and/or Erection Hardness Score (EHS) of ≥ 3 without neo- or adjuvant therapy were included in this analysis. Preoperatively and postoperatively after 6, 12, 24 and 36 months, patients were asked via questionnaires, among other things, about: masturbation (yes: m; no: nm), erectile function (moderate to good erectile function: IIEF-EF ≥ 17 or EHS ≥ 3), morning erections (yes: occasionally, almost always, always; no: almost never, never), and urinary continence (max. one dry pad).

Results: 314 patients who were preoperatively potent with median age of 64.1 years (range 45.2–77.6 years) at RP were included. 63.4% of the patients masturbated preoperatively and 80.7% had at least occasionally morning erections. 65.7%, 71.4%, 65.2% and 70.5% of the patients masturbated after 6, 12, 24 and 36 months. After 24 and 36 months, m-patients had a clinically relevant ($\geq 10\%$) better erectile function (24 months: 47.5% vs. 37.5%; 36 months: 47.7% vs. 35.7%) than nm-patients. Moreover, m-patients had more often morning erections (24 months: 54.6% vs. 34.9%; 36 months: 52.2% vs. 35.7%) and their urinary continence rate was 12 and 36 months after nsRP clinically relevantly higher (12 months: 83.1% vs. 70.2%; $p < 0.05$; 36 months: 89.4% vs. 67.9%; $p < 0.05$).

Conclusion: Our study shows that masturbation after nsRP is associated with a clinically relevant better functional outcome. If masturbation is the reason for the better functional outcome or if a better functional outcome leads to more masturbation remains unclear and needs to be investigated in future studies.

Policy of full disclosure: None

HP-04-005

PREMATURE EJACULATION ASSOCIATED WITH INCREASED SEVERITY OF LOWER URINARY TRACT SYMPTOMS

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Objective: The purpose of this study was to compare the severity of lower urinary tract symptoms (LUTS) between patients with and without premature ejaculation (PE).

Methods: The relationship between the severity of LUTS and PE was investigated among 825 male who underwent medical check-up from July 2013 to July 2018 at our hospital. PE was defined by self-reported intra-vaginal ejaculation latency time and results obtained with a premature ejaculation diagnostic tool. The severity of LUTS was determined by international prostate symptom score (IPSS), overactive bladder symptom score (OABSS), transrectal ultrasonography (TRUS), and uroflow rate and. Besides, the correlations with age, medical comorbidities such as hypertension and diabetes, and other clinical parameters were also investigated for

their effect on LUTS. A total of 825 male were classified into 3 groups: PE-group (N=60), self-reported PE-group (N=353), and non PE-group (N=412).

Results: The total IPSS, IPSS-V, IPSS-S, QoL, OABSS, IIEF-15 and testosterone level showed significant differences ($p < 0.05$) and comparatively higher values in the PE-group than Non PE-group. Even at the analysis of self-reported PE-group and Non PE-group, self-reported PE-group showed significant differences in total IPSS, IPSS-V, IPSS-S, QoL, OABSS and IIEF-15 with comparatively higher values ($p < 0.05$). Even the analysis of PE-group and self-reported PE-group revealed significant differences with comparatively higher values of total IPSS, IPSS-V, IPSS-S, QoL, OABSS, IIEF-15, testosterone ($p < 0.05$), ($P < 0.05$). Other parameters showed no significant differences between the different groups.

Conclusion: Comparison between three groups suggested that the severity of LUTS was comparatively higher and even erectile function (IIEF-15) was decreased in the relatively severe PE-group. Therefore, it is thought that being associated with or without PE might be a significant factor to consider, which affects LUTS severity.

Policy of full disclosure: None

HP-04-006

ASSOCIATION OF SEXUAL IDENTITY AND ACTIVITY WITH PROSTATE-SPECIFIC ANTIGEN (PSA) IN A PROSTATE CANCER SCREENING POPULATION

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Objective: In this study, we investigated the association of sexual identity and activity with PSA.

Methods: Between April 2014 and April 2018, 45-year old men within the German Male Sex-Study were asked, among other things, about their sexual identity (heterosexual, homosexual), practicing anal sex (yes, no), frequency of masturbation and sexual activity in the last 3 months (0, 1, 2-3, >3 per week), and self-rated ejaculation time <2 minutes (yes, no). PSA levels were measured as well.

Results: We included 13,489 men (heterosexual $n=13,013$, homosexual $n=476$) in this analysis. The median PSA level was 0.75 ng/ml (ICR: 0.51–1.08 ng/ml, mean: 0.91 ng/ml). Homosexual men had a slightly higher PSA than heterosexual (0.79 ng/ml vs. 0.75 ng/ml). Homosexual men practicing anal sex (61.9%) had a tendency to a higher PSA level compared to homosexual men not practicing anal sex (0.82 ng/ml vs. 0.78 ng/ml). A higher frequency of masturbation or sexual activity was associated with a slightly higher PSA level in the entire study population and in heterosexual and homosexual men. Ejaculation time <2 minutes (9.1%) was associated with a lower PSA level in the entire study population (0.75 ng/ml vs. 0.72 ng/ml), in heterosexual men (0.75 ng/ml vs. 0.72 ng/ml), and in homosexual men (0.80 ng/ml vs. 0.75 ng/ml).

Conclusion: Our study shows that in a prostate cancer screening population of more than 13,000 45-year-old men, homosexual identity, practicing anal sex, higher frequency of musturbation, and higher sexual activity are associated with a slightly higher PSA level. However, findings are not of clinical relevance given differences in PSA levels are small.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-05 Female sexual health and dysfunction - 1

HP-05-001

INTEROCEPTION DIFFERENTIALLY INFLUENCES SEXUAL CONCORDANCE IN WOMEN WITH AND WITHOUT SEXUAL DYSFUNCTION

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Objective: Objectives: The present study examined the agreement between subjective and physiological sexual arousal in women with and without sexual dysfunction and explored how this agreement varies based on one's level of interoception.

Methods: Methods: Women with (n = 33) and without (n = 34) sexual arousal dysfunction participated in this study. In a laboratory setting, women's subjective and physiological sexual arousal were continuously measured throughout an erotic film presentation. Subjective sexual arousal was measured with an arousometer, which is a device participants move continuously to indicate changes in arousal. Physiological arousal was measured with a vaginal photoplethysmograph. Interoception was assessed with the Multidimensional Assessment of Interoceptive Awareness (Mehling et al., 2011). Growth curve modelling was used to assess the interrelatedness of these variables.

Results: Results: A significant relationship between subjective and physiological sexual arousal that was somewhat stronger for women without sexual dysfunction emerged, in addition to tremendous between-person variability for both groups. Several aspects of interoception moderated concordance rates, and this pattern varied across groups. For example, negative effects of the not distracting ($\beta = -0.14$, $t = -10.56$, $p < 0.001$) and not worrying ($\beta = -0.33$, $t = -12.36$, $p < 0.001$) subscales on concordance emerged for women without sexual dysfunction, but positive effects were found for women with sexual dysfunction ($\beta = 0.037$, $t = 2.85$, $p = 0.004$, and $\beta = 0.10$, $t = 4.60$, $p < 0.001$, respectively).

Conclusion: Conclusions: Given the tremendous between-person variability in concordance that was present in both groups of women, these findings question the utility of concordance as a clinical outcome in treatment research. Individual differences analyses indicate that women who allocate more attentional resources to their bodily sensations show a greater relationship between genital and subjective sexual arousal. However, variants of this pattern were present regardless of the presence of sexual dysfunction.

Policy of full disclosure: None

HP-05-002

EXPLORING THE WILLINGNESS OF FEMALE UNIVERSITY STUDENTS IN SOUTHERN TAIWAN TO INOCULATE HUMAN PAPILLOMAVIRUS VACCINE: ANALYSIS CONDUCTED USING STRUCTURAL EQUATION MODELING

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Objective: Objectives: Previous studies have verified the association of human papillomavirus (HPV) with cervical cancer and condyloma acuminata. HPV vaccination is currently the most effective method for

preventing HPV infection. Therefore, studies on preventive medicine have often used the health belief model (HBM) to explore examinees' health behaviors.

Methods: Methods: The HBM was adopted to explore the willingness of female university students in southern Taiwan to receive the HPV vaccine, and structural equation modeling (SEM) was used to investigate related predictors. Between October and December of 2016, 1,000 questionnaires were distributed to female freshman students in a university of technology in southern Taiwan, and 834 valid questionnaires were recovered. Correlation analysis and SEM were used to analyze respondents' willingness to receive the HPV vaccine.

Results: Results: Perceived severity and perceived morbidity did not exert a direct or indirect effect on students' willingness to receive the HPV vaccine. Action cues and self-efficacy mediated the effects of perceived vaccination benefits and perceived vaccination barriers on students' willingness to receive the HPV vaccine.

Conclusion: Conclusions: To improve the students' willingness to receive the HPV vaccine and prevent HPV infection, public hygiene authorities should disseminate related information through various media or develop mobile applications that provide students with diverse information.

Policy of full disclosure: None

HP-05-004

SEXUAL FUNCTION OF WOMEN WITH ULCER TYPE INTERSTITIAL CYSTITIS

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Objective: Pain is the signature symptom of interstitial cystitis(IC) and affects patients' quality of life extensively. In this study, we aimed to investigate the effects of bladder disease to sexual life quality and sexual activity in women with ulcer type IC.

Methods: From March 2015 to February 2017, 136 female patients who had been diagnosed as ulcer type IC were enrolled to this study. Every patient was informed to fill up the Korean version of questionnaires about voiding and sexual functions (King's health questionnaire, OAB-Q, CPPS female, FSFI) on their first visits. Each symptom was scored from zero to five according to their symptom severities. Data were analyzed using Spearman's correlation.

Results: Mean age of patients was 46.2 ± 8.9 years old, and their mean duration of symptoms was 10.7 ± 7.1 months. Vulvodynia was correlated with increasing age ($\rho = 0.287$, $p = 0.037$). Bladder pain and vulvodynia*, vulvodynia and sexual activity**, dyspareunia and sexual activity***, vulvodynia and dyspareunia**** showed statistically significant positive correlation, respectively (* $\rho = 0.248$, $p = 0.015$, ** $\rho = 0.331$, $p = 0.002$, *** $\rho = 0.615$, $p = 0.0001$, **** $\rho = 0.258$, $p = 0.025$, respectively).

Conclusion: Sexual activity was significantly affected by having IC. It is supporting that clinician should have good concern not only about patients' painful lower urinary tract symptoms but also their sexual functions.

Policy of full disclosure: None

GDG	Country	Year	Score	Compliance rate
Interventions to address sexual problems in people with cancer	Canada	2016	6.1	76.6
Guidelines on male sexual dysfunction: erectile dysfunction and premature ejaculation.	Europe	2018	5.3	65.6
Erectile dysfunction: AUA guideline	USA	2018	5.0	62.5
Hormonal testing and pharmacologic treatment of erectile dysfunction: A clinical practice guideline from the American College of Physicians	USA	2009	4.8	59.4
JSSM guidelines for erectile dysfunction	Japan	2008	4.6	57.8
Guidelines for general practitioners for first-line management of erectile dysfunction (updated 2010)	France	2010	4.0	50.0
Guidelines for erectile dysfunction. Colombian urological Society	Colombia	2015	3.5	43.8
Survivorship: Sexual Dysfunction (Male), Version 1.2013: Clinical Practice Guidelines in Oncology	USA	2018	3.4	42.2
UK management guidelines for erectile dysfunction	United Kingdom	2000	3.1	38.3
Spanish consensus on sexual health in men and women over 50	Spain	2014	2.9	35.9
Sexual Rehabilitation After Treatment for Prostate Cancer: Recommendations From the Fourth International Consultation for Sexual Medicine (ICSM 2015)	International	2017	2.9	35.9
Disfunção erêtil: tratamento com drogas inibidoras da fosfodiesterase tipo 5	Brazil	2006	2.6	32.8
British society for sexual medicine guidelines on the management of erectile dysfunction in men - 2017	United Kingdom	2018	2.6	32.0
2015 CUA Practice guidelines for erectile dysfunction	Canada	2015	1.7	21.1
Erectile dysfunction and coronary artery disease prediction: Evidence-based guidance and consensus	International	2010	1.4	18.0
Guidelines for the assessment of the vasculogenic erectile dysfunction	Italy	2012	1.4	17.2
Clinical practice guidelines on erectile dysfunction	Malaysia	2000	1.3	15.6

HP-05-005

ULTRASOUND STUDY OF BLOOD FLOW IN VESSELS OF FEMALE PROSTATE GLAND

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Objective: Ultrasound study of blood flow in vessels of female prostate gland (FPG) both in calm and during sexual stimulation of women in reproductive age.

Methods: A gynecological, sexological and ultrasound study of 94 sexually active women-volunteers, aged from 24 to 42, was carried out. Determination of FPG during ultrasound study was conducted in the regime of grey scale (B-regime) using colored Doppler carding (CDC) and evaluation of Doppler indices of vessels of paraurethral glands both before and after sexual stimulation. Catheterization of urinary bladder and insertion of a balloon, filled with gel, into vagina were carried out at the beginning of examination for the improvement of FPG visual view.

Results: Front type of FPG location was found in the accumulation of tissues of paraurethral glands in the projection of distal part of urethra in 67 (71.2%) of examined, back type — in the area of back urethra in 19 (20.2%), diffuse type — along urethra in 7 (7.5%), and absence — in 1 (1.1%). FPG was visualized in the form of clear isoechogenic oval formation with the following size: length — 2.2 ± 0.6 cm, width — 1.52 ± 0.4 cm, thickness — 1.3 ± 0.3 cm, and volume — 4.75 ± 0.5 cm³. Diameter of vessels in the FPG area was between 0.17 and 0.21 cm in calm, and 0.39-0.41 cm — during stimulation. Maximum systolic speed of blood flow (Vps) in calm was 8.9-11.1 cm/sec, while in sexual stimulation it was 13.9-14.1 cm/sec,

resistance index (IR) — 0.6-0.62 and 0.63-0.68 respectively, pulsatility index (IP) — 1.44-1.22 and 1.61-1.72 respectively.

Conclusion: Ultrasound study of vessels of paraurethral glands using Doppler method according to the suggested methodology gives opportunity not only to identify FPG, but also to determine its types. In CDC the increase of diameter of vessels and improvement of vessels image in the area of paraurethral glands at the background of sexual stimulation were marked. Policy of full disclosure: None

HP-05-006

SEXUALITY AND SEEKING TREATMENT FOR SEXUAL DYSFUNCTION AMONG TAIWAN POSTMENOPAUSAL WOMEN USING HEALTH BELIEF MODEL

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Objective: This study was aimed to investigate sexuality, and to identify predictive factors of seeking treatment for sexual dysfunction among Taiwan postmenopausal women.

Methods: 542 postmenopausal women were surveyed in the obstetric/gynecologic department in southern Taiwan. Women who ever had vaginal intercourse in recent 6 months were recruited and completed a self-administered structured questionnaire. There were two groups: willing vs. unwilling or uncertain to treat. The main outcome measures were physical, psychosexual, and Health belief model (HBM) variables. HBM contained susceptibility and severity of disease, and benefits, barriers, cues to action and self-efficacy of

seeking treatment. Multivariate logistic regression analysis was used to identify predictive factors of seeking treatment for sexual dysfunction.

Results: Of 542 women, 58.9% were sexually active in recent 6 months (5.9% ever masturbation, 54% vaginal intercourse, and 9.4% oral penis), and 99.4% were heterosexual. A total of 125 women were enrolled (42.8% response rate). The prevalence of Female sexual interest/arousal disorder, Female orgasmic disorder, Genito-pelvic pain/penetration disorder were 35.2%, 24.4%, and 24.4% (n=84), in which 32.1% and 25% were two- and three- combined. 46.3% of 125 women had treatment intention. Willing to treat group had significantly higher sexual frequency ($p=.043$), self-perceived higher sexual attractiveness ($p=.045$), more likely to agree that

benefit of treatment was physical health improvement ($p=.04$), higher self-efficacy including getting information about sexual dysfunction ($p=.004$), receiving examination of sexual function ($p=.000$), and completing individual or couple treatment ($p=.000$ and $p=.045$), and higher cues to action including partner's love and request ($p=.002$), successful treatment experience from others ($p=.000$), and desire of sexual enjoyment ($p=.002$). Only cue to action could significantly predict for treatment intention ($OR=4.26$, $p=.009$).

Conclusion: Only cues to action could predict seeking treatment for sexual dysfunction in Taiwan postmenopausal women.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-06 Reconstructive surgery

HP-06-001

THE ROLE OF MAGNETIC RESONANCE IMAGING FOR THE DIAGNOSIS OF PENILE FRACTURE IN REAL LIFE EMERGENCY SETTINGS: COMPARATIVE ANALYSIS WITH INTRAOPERATIVE FINDINGS



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Objective: To evaluate the role of magnetic resonance imaging (MRI) of the penis in the diagnosis of penile fracture, including the assessment of the urethra, in real life emergency settings in comparison with intraoperative findings.

Methods: From a total of 43 patients presented with suspicion of penile fracture between January 2006 and December 2016, MRI was performed on 28 patients prior to surgical treatment in real-life emergency settings. Surgery was performed on all patients through subcoronal circumferential degloving approach, based on clinical judgement, irrespectively from MRI findings. The interpretation of MRI was performed by the on-duty radiologist in real-life emergency settings and was compared with the intraoperative findings. Sensitivity, specificity, positive and negative predictive value (PPV/NPV), as well as the likelihood ratio for positive and negative results (LR+/LR-) were calculated for the agreement between MRI and intraoperative findings. The confidence intervals (CI) were set at 95%, for Type I error of 5%.

Results: According to intraoperative findings, a penile fracture was confirmed in 19/28 (67.9%) patients. A concomitant urethral lesion was observed in 5/28 patients (17.9%). Regarding the diagnosis of tunical rupture, MRI findings were highly correlated with intraoperative findings (sensitivity: 100%, 95%CI [98.5%, 100%], specificity: 77.8% [50.6%, 100%], PPV: 90.5% [78%, 100%], NPV: 100% [97.6%, 100%] and LR+: 4.5). Regarding the diagnosis of concomitant urethral lesion, MRI findings showed lower accuracy (sensitivity: 60% [17.1%, 100%], specificity: 78.3% [61.5%, 95.1%], PPV: 37.5% [4%, 71%], NPV: 90% [76.9%, 100%] and LR+: 2.76).

Conclusion: Solitary MRI of the penis is not sufficient for the diagnosis for the diagnosis of penile fracture or concomitant urethral tear in emergency settings and should not replace the clinical assessment or delay surgical exploration in equivocal cases. It could help avoiding unnecessary surgery, when the clinical suspicion of penile fracture is weak and MRI results are

negative, since the sensitivity and negative predictive value are high, both for the corpora cavernosa and the urethra.

Policy of full disclosure: None

HP-06-002

RADICAL PROSTATECTOMY VS ANTERIOR RESECTION OF THE RECTUM: ARE THERE ANY DIFFERENCES IN SEXUALITY?



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Objective: The aim of this study was to evaluate clinical patients' characteristics submitted to Radical Prostatectomy (RP) or Anterior Resection of the Rectum (ARR) and evaluated in our multidisciplinary Oncosexology consultation.

Methods: We performed a unicenter retrospective cohort study, on patients evaluated in our multidisciplinary Oncosexology consultation, between January 2015 to January 2018, submitted to RP or ARR (males). We evaluate the patient and oncologic characteristics, the type of sexual dysfunction, marital status, assessed the International Index of Erectile Function (IIEF-5) on the first and last consultation and the therapeutic approach. A statistical analysis was performed.

Results: A total of 55 patients were included, 60% (33) performed ARR and 40% (22) RP. In both groups, most patients were 40-60 years old. Regarding the marital status, majority were married (87.9% in ARR vs 77.3% in RP) ($p=0.7$). Concerning the oncological treatment, in ARR 97% of the patients needed to proceed treatment with Radiotherapy/ Chemotherapy and in RP 27.2% did radiotherapy. Regarding the sexual dysfunction, erectile dysfunction was found in the majority of patients (>95%). On the initial IIEF-5 scoring, ARR patients had, most frequently, severe or moderate erectile dysfunction (score 5-11), than RP patients, 78.8% vs 59.1% ($p=0.95$). When evaluated the last registered IIEF-5 scoring of each patient, there was an improvement in 69.7% of AAR patients and 72.7% of RP patients ($p=0.81$). Regarding the therapeutic approach, 84.8% of ARR patients used IPDE-5 exclusively, 3% used Alprostadil Injection, while RP patients used 63.6% and 31.8%, respectively ($p<0.05$).

Conclusion: Despite the technical differences of these surgeries, from the sexual point of view, there are no significant differences. These patients benefit from a multidisciplinary intervention in the Oncosexology consultation.

Policy of full disclosure: None

HP-06-003

SEXUAL DESIRE ASSESSMENT IN PATIENTS WITH INDURATIO PENIS PLASTICA (IPP) AND RECURVATUM PENIS TREATED WITH SURGICAL CORRECTION

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Objective: Sexual desire isn't usually assessed during consultation for IPP; We have attempted to measure the libido in patients treated with corporoplasty for penile deformity.

Methods: 15 patients, aged 53-72 years (m. 62, 3 years), with IPP and severe penile deformity underwent surgical procedure. Before surgery photography of erected penis were taken and sexual desire was measured with our questionnaire. We administered the questionnaire before procedure and 12 weeks after. All patients used before surgery PDE5i, so 12 weeks after we administered them IIEF5. Recurvatum was moderate/marked ($>60^\circ$) with slight/moderate, hourglass-deformity. We carried out 12 albuginea plications with urethral and dorsal bundle dissection and with dissection of the deep layer of the plaque respecting its superficial layer. 3 patients had dissection of the plaque with Gore-Tex patch.

Results: The plasmatic total testosterone (TT) before surgery was 350 to 610 ng/dl (m. 464, 7 +/- 80), 12 weeks after, TT was 320 to 550 ng/dl (m. 457 +/- 65), without significant differences. The libido was between 7 (normal) and 15 (mildly reduced) (m. 11 +/- 2, 5), 3 months after, it was between 6 (normal) to 13 (slight reduction) (m. 8, 6 +/- 1, 6), with significant improvement. The IIEF5 after 12 weeks of surgery, was between 17 and 25. The correction of recurvatum was good in all cases and the patients were satisfied.

Conclusion: Deformity of penis determines coital dysfunction and dysmorphic syndrome, which can modify psycho-sexual asset of the patients. The coital dysfunction and non-acceptance of deformity are the reasons which lead the patients to ask surgical treatment. Furthermore the modified psychosexual asset, interferes with libido, which results reduced although the TT level is normal. The survey that we propose, though employed from the AA in patients with LOH, needs further validation. The present experience demonstrates the patients with penile deformity could show a reduction of libido. The surgical correction and erectile support, can improve sexual desire. The main indications for surgical treatment of the recurvatum penis secondary to IPP, are coital dysfunction and psychological discomfort which determines reduction of the libido. This symptom needs careful investigation during medical interviews and answering a questionnaire to make it objective before surgery.

Policy of full disclosure: None

HP-06-004

PENILE IMPLANTATION IN SLOVENIA: SUCCESSES AND COMPLICATIONS WITH 107 IMPLANTS BETWEEN 1985 -18

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Objective: Introduction. Here are results of more than 3 decades' experiences with penile implantation in Slovenia. Aim. The study aimed to assess, retrospectively, complications with AMS penile implants in 107 consecutive patients with erectile dysfunction from our centre in Ljubljana.

Methods: Methods. Pre-, intra-, and postoperative data were obtained from chart review of all 107 cases. Due to long period some patients are not alive any more.

Results: Results. Major postoperative complications occurred in 9 cases (8,1%) with hematoma and suffusion of blood around postoperative cut

through penoscrotal approach. All of them were conservatively treated. In 6 cases (5,6%) we did perforation of corpora cavernosa and penile septum due to dilatation. Only in 1 case we didn't stop the procedure with implantations of cylinders. Delayed complications were: 10 patients (9,3%) had many years after implantation protrusion of part of prosthesis. In 3 cases the protrusion of pump in through scrotal wall and in 7 cases protrusion of cylinder through glans penis. One patient had protrusion of balloon into the bladder with formation of a bladder stone around it. All of them we removed prosthesis out immediately. No mechanical failures found. Complications together were in 25 cases (23,3%).

Conclusion: Conclusion. Postoperative complications differed from those reported in the literature. The reporting of specific data for different implant types, plus the use of standardized assessment tools for patients' satisfaction is significant as in the future, it allows comparison of data between centres performing penile prosthesis implants using these devices.

Policy of full disclosure: None

HP-06-005

PENILE SKIN PRESERVATION TECHNIQUE FOR RECONSTRUCTION SURGERY OF PENILE PARAFFINOMA

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Objective: Penile resurfacing with various scrotal flaps is a simple, effective, and reliable reconstructive armamentarium to treat penile paraffinoma. However, scrotal flaps often result in heavy hair-bearing penile skin causing dyspareunia or shortening of penile length. We introduce a new penile skin preservation technique for reconstruction surgery of penile paraffinoma.

Methods: From March 2007 to April 2018, 23 patients underwent excision of paraffinoma with the penile skin preservation technique. Complete removal of the subcutaneous tissue was done, including paraffinoma. No. 10 surgical blades were used to peel off the skin as thin as possible in order to get paraffinoma-free skin. The preserved penile skin was given an end-to-end anastomosis to the circumferential incision site. Multiple anchoring fixation sutures of the penile skin were made on the underlying tissue. Dressing of chopped gauze soaked with antibiotic saline solution was done on the skin to help preserve it and keep it fixed on the penis.

Results: The skin survived completely without necrosis in 19 patients (82,6%), with the mean duration of healing being 21.9 days. The penis after the operation looked natural in color and shape. Partial necrosis after the operation was shown on 4 patients (17,4%), whom were all later treated with the conventional scrotal flap technique. The final results were successful without any cosmetic or functional complications such as skin contracture.

Conclusion: Penile resurfacing with the penile skin preservation technique is a new effective reliable method for skin-intact paraffinoma which produces good functional and cosmetic results.

Policy of full disclosure: None

HP-06-006

MULTIPLE TRANSVERSE DORSAL INCISIONS PATCHED WITH TACHOSIL® IN THE SURGICAL TREATMENT OF PEYRONIE'S DISEASE: PRELIMINARY RESULTS

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Objective: Penile curvature is in the majority of patients the primary endpoint in the treatment of Peyronie's disease. We present a technique of multiple transverse incisions patched with TachoSil® self-adhesive collagen fleece (Takeda, Portugal) for the primary surgical correction of penile dorsal or dorsolateral curvature, regardless of severity of angle of curvature and penile length, as an alternative to grafting and plicating procedures.

Methods: From September 2017 to October 2018, a total of 11 potent patients with dorsal or dorsolateral curvature underwent this procedure. A duplex Doppler ultrasound scan (DDUS) was performed routinely pre-operatively to assess erectile hemodynamics. A subcoronal circumferential incision is made and penile shaft degloving is performed as necessary. The neurovascular bundle is carefully elevated off from the area of maximal curvature. Several transverse incisions are marked and then made with a cold scalpel on the tunica albuginea about 3 mm apart from each other. The tunical incisions are then sealed with TachoSil® separately with the penis on stretch to avoid potential contraction. No stitching is necessary as this vascular sealant sticks to the tunical defect by itself. The neurovascular bundle and Buck's fascia are repositioned and sutured back in place.

Results: Patients' age ranged from 47-76 years (mean 64). Etiology of PD was variable: penile trauma during sexual intercourse in 4, urethral

catheterization (post-radical prostatectomy) in 1, urethral endoscopic instrumentation in 1, penile blunt trauma 1 and idiopathic in 4. Penile curvature varied from 45° to 90° (mean 65°). Pre-operatively, PSV varied from 44 cm/s to 82 cm/s (mean 57) and EDV from -1.5 cm/s to 10.8 cm/s (mean 4.5). Post-operatively, no significant changes in penile hemodynamics were noted on DDUS. Operative time ranged from 75 min to 120 min (mean 95). Mean follow-up varied from 4 to 13 months (mean 5). Pre-operatively, penile length measured from 11 cm to 16 cm in erection (mean 14). Post-operatively, 2 patients noted penile length reduction of < 1 cm, 5 patients reported no change and 4 noted a slight increase between 1- 1.5 cm in erection. Post-operative residual curvature was < 15° in 3 patients. All patients and their partners were satisfied with the surgical results, especially with penile straightening, rigidity and erogenous sensitivity.

Conclusion: We think this procedure is safe, efficacious and associated with patients' high satisfaction and may be indicated in all patients with dorsal/dorsolateral curvature, regardless of severity of angle of curvature, with no or minimal impact on erectile function and penile length. The use of simple incisions only and TachoSil® seems to avoid the potential adverse effects of veno-occlusive dysfunction created by the large grafted tunical defects and the frustrating complication of penile length decrease.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-07 Female sexual health and dysfunction - 2

HP-07-001

PROPER ASSESSMENT FOR FEMALE VAGINAL REJUVENATION: THE NEED TO EVALUATE THE RELATIONSHIP DISCORD AND BODY DYSMORPHIC SYNDROME

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Objective: Only approximately 10% of women who undergo vaginal rejuvenation procedures report that there was an external influence that influenced their decision to undergo their cosmetic/ functional procedure. However, it is estimated that between 6-53% of women who undergo these procedures may suffer from some form of body dysmorphic syndrome (BDS). The importance of relationship assessment for women undergoing cosmetic rejuvenation procedures cannot be underscored, since both relationship discord, partner coercion and BDS need to be properly evaluated and possibly exclude before any intervention.

Methods: A med-line search was conducted with the combination of following key words, vaginal rejuvenation, vaginal laxity; a total of 58 articles were obtained. Animal, male studies, and those with unrelated topics, or foreign language publications were not included. 45 publications were all reviewed. When feasible methods and or inclusion/exclusion criteria were reviewed in detail.

Results: 45 articles were reviewed. Only 5 articles (11%) discussed partner influences or the importance of a relationship assessment. BDS specifically was mentioned in 1 article and it was estimated to be prevalent in the population seeking vaginal rejuvenation procedures including surgery, laser and radiofrequency treatments. While over 20 scales were mentioned of assessment toolbox, only one clinical trial implemented a personal distress scale.



Conclusion: There is a lack of consistent relationship assessment for a woman prior to undergoing a vaginal rejuvenation procedure. BDS and relationship discord must be evaluated. The woman, herself, must be motivated for a functional/cosmetic improvement yet women with relationship discord should be offered counseling. While immediate satisfaction with interventions is prevalent (over 90%), long term happiness and satisfaction and repeat procedures remains unknown.

Policy of full disclosure: Dr Michael Krychman is a paid consultant for Viveve Medical

HP-07-002

ASSOCIATION BETWEEN DEHYDROEPIANDROSTERONE SULFATE (DHEAS) AND SELF-REPORTED SEXUAL FUNCTIONING IN WOMEN

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Objective: Despite several previous studies, the relationship between DHEAS and female sexual functioning remains unclear. Therefore, the objective of this study was to investigate the role of dehydroepiandrosterone sulfate (DHEAS) for current and lifelong female sexual functioning. **Methods:** The cross-sectional study included female individuals (M age 57.58) from the TwinsUK registry. Sexual functioning was assessed using the Female Sexual Function Index (FSFI) and Female Sexual Function Index – Lifelong (FSFI-LL). Serum concentrations of DHEAS, testosterone, estrogen, and SHBG were measured by ElectroChemiLuminescent immunoassays.



Results: When controlling for age, a positive correlation of DHEAS with current pain ($r_p = 0.105$, $p < 0.05$) and lifelong lubrication ($r_p = 0.094$, $p < 0.01$) could be detected. The three groups of women with age-specific low (LD), normal (ND), and high (HD) DHEAS levels, differed significantly in terms of sexual arousal, with the LD group showing significantly lower levels compared to the ND and the HD group ($x_2 = 9.01$; $p < 0.5$). Multilevel regression modelling indicated that the impact of DHEAS on sexual functioning was washed out when including the effects of testosterone, estrogen, and SHBG. Only estrogen turned out to be an independent predictor for lifelong lubrication ($p < 0.005$).

Conclusion: Given the results, the potential benefit of DHEA supplement treatment in women is questionable. Further research should look at DHEA in pre- and post-menopausal women separately.

Policy of full disclosure: Andrea Burri is an advisory board member and consultant for A. Menarini Pharmaceuticals. Hartmut Porst is a consultant and speaker for Berlin Chemie/Menarini group and Recordati.

HP-07-003

FIRST SEXUAL INTERCOURSE AMONG HIGH SCHOOL STUDENTS IN SLOVENIA

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Objective: We present results on first sexual intercourse gathered from the national survey on sexual behaviour of high school students in Slovenia in 2014. The aim of the study was to study opinions, attitudes and behaviour regarding different aspects of sexuality (sexual initiation, partner relationships, practices, circumstances of the first sexual intercourse, contraception use and so on). In the presentation, the focus will be put on main characteristics of first sexual intercourse (mean age, sexual repertoire, protection used etc.) taking into account gender differences.

Methods: The study was done on a random sample of 2,143 high school students from all regions of Slovenia. 57.8 % were from vocational and 42.2 % from grammar schools (proportional to size). In each school 2 sections of mostly third year students participated in a web survey in school computer labs, monitored by postgraduate students of the Faculty of Social Sciences and workers from the school. The sampling frame was the list of secondary schools on the Ministry of Education, Science and Sport webpage. Out of 65 schools in the initial systematic random sample 52 participated, 6 refused participation or appropriate dates could not be co-ordinated and 7 could not be contacted after several attempts by email and telephone. A pilot test was done on one vocational and one grammar school. Parts of the survey questionnaire were also tested by focus groups. Data were analysed by SPSS.

Results: 50.0 % of female respondents and 38.8 % of male respondents already had sexual intercourse. The mean age at FSI is 15.8 for female respondents and 15.7 for male respondents. The mean age of partner was 18.0 for female respondents and 16.1 for male respondents. 77.1 % of female respondents and 60.0 % of male respondents had FSI with an intimate partner. 87.4 % of female respondents and 86.7 % of male respondent used a condom at FSI. The results on views regarding condom use show that in general respondents do not have negative views toward condom use, however there are statistically significant gender differences with women having more positive views.

Conclusion: In comparison with previous surveys data from the latest survey show the trend of decreasing age at FSI. However, majority of FSIs happen within intimate partnership and are at least expected if not planned. Also, the share of those who use condom at FSI (or some other method of protection) is high. The social, cultural and political reasons for

such situation and consequences for public health will be discussed in the presentation.

Policy of full disclosure: None

HP-07-004

SEXUAL DYSFUNCTION IN PEOPLE WITH MULTIPLE SCLEROSIS (MS)

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Objective: To establish the prevalence of different sexual dysfunctions in people with multiple sclerosis, and whether professionals ask for these problems and treat them.

Methods: A questionnaire with sociodemographic data, and questions regarding sexual problems and type and length of having multiple sclerosis (MS) was applied. Participants were people with multiple sclerosis attending a conference on MS (N = 106).

Results: Less than 5% of the patients with MS were asked by their health care professionals about sexual problems. Majority (> 80%) of them had some sexual dysfunction. The most prevalent sexual dysfunction in women was hypoactive sexual desire disorder, and in men erectile dysfunction and delayed orgasm. Many of the participants added to the questionnaire their wish to talk about these problems with a professional.

Conclusion: Many patients with MS have sexual problems, but nobody asks them about these problems, and they are not treated for them.

Policy of full disclosure: None

HP-07-005

MANAGING PRESSING CONCEPTION GOALS IN VAGINISMUS PATIENTS

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Objective: Alternate approach to managing conception goals in Primary Vaginismus.

Methods: A 34-year old Chinese lady with 3 years of unconsummated marriage presented for fertility assessment and was diagnosed with Vaginismus. Vagina desensitisation therapy working towards intercourse was unsuccessful but facilitated receptivity to digital insertion and syringe insemination. Due to anxiety about declining fertility potential with increasing maternal age, she eventually requested for In Vitro Fertilisation (IVF). A multidisciplinary approach involving a gynaecologist, psychologist and physiotherapist was adopted. Treatment addressed sexual knowledge deficiencies, incorporating Sensate focus exercises, cognitive-behavioural-therapy and intra-vaginal desensitisation. The initial goal focused on achieving penile- vaginal penetration. Subsequently, focus shifted to enabling receptivity for intra vaginal procedures to facilitate fertility processes. Information surrounding fertility procedures was also provided.

Results: The patient underwent transvaginal fertility investigations and completed IVF treatment, conceiving successfully.

Conclusion: With vaginismus, the etiological role of anxiety is well-documented (1). Penile penetration and coitus is aspired to as the end goal but can be difficult or unachievable (1). For subsets of patients, the desired goal is urgent conception. Maladaptive cognitions surrounding themes of urgency to hasten progress often prevail with coitus perceived as a precursor to the eventual goal. Beside pain, intensive attention is focused on failure consequences (2). This likely generates low efficacy expectations (3) and worry built on themes of incompetence and helplessness (4). This is consistent with

studies finding higher sexual dysfunction and lower marital satisfaction among women with fertility concerns (5). Exposure exercises based on a step-wise approach of gradual progression till penile penetration is less effective due to high anxiety levels associated with urgency themes. We recommend personalising hierarchies of exposure factoring in individuals' goals instead of assuming a generalised approach. For patients with urgent conception desires, consider facilitating tolerance of intra-vaginal medical procedures as a treatment end point. References 1. ter Kuile, M. M., van Lankveld, J. J. D. M., de Groot, H. E., Melles, R., Neffs, J. & Zandbergen, M. (2007). Cognitive-behavioral therapy for women with lifelong vaginismus: Process and prognostic factors, *Behaviour Research and Therapy*, 45, 359–373. 2. Barlow, D. H. (1986). The causes of sexual dysfunction: The role of anxiety and cognitive interference. *Journal of Consulting and Clinical Psychology*, 54, 140-148. 3. Bach, A.K., Brown, T.A. & Barlow, D.H. (1999): The effects of false negative feedback on efficacy expectancies and sexual arousal in sexually functional males. *Behavior Therapy*, 30 (1), 79-95. 4. Nobre, P.J. & Pinto-Gouveia, J. (2009). Cognitive Schemas associated with negative sexual events: a comparison of men and women with and without sexual dysfunction. *Arch Sexual Behaviour*, 38(5), 842-851. 5. Wischmann, T (2013) *Curr Opin Obstet Gynecol Sexual disorders in infertile couples: an update*. Volume 25 Number 00
Policy of full disclosure: None

HP-07-006

THERE IS A LIGHT AT THE END OF THE TUNNEL- VAGINAL TUNNEL

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Objective: Life-Long Vaginismus (LLV) is a female sexual problem of life-long inability or difficulty to have vaginal penetration, either through penile penetration, using a tampon, a dildo, a vibrator, a finger/s, a speculum or a prevention of any other wanted form of vaginal penetrative practices. Term, diagnosis, etiology, conceptualization and treatments for LLV are still unclear. (Leiblum, 2000; Binik & Meana, 2009; Kleinplatz, 2012; Svedhem et al., 2013; Pacik, 2014; Binik, 2014; Stelko, 2015; Macey et al., 2015). Leiblum calls it, "a most perplexing problem" (2000, pg.181). Despite the fact that the definition refers to different kinds of vaginal penetration the contemporary literature is worryingly silent about the other forms of penetration in relation to LLV. The aim of this presentation, which is based on the research I have conducted in 2017, is to present findings which can be used in counseling/psychotherapy, sexual health, education, social work, sociology and anthropology and for sexual health policy making.

Methods: I have chosen Interpretative Phenomenological Analysis (IPA) as a research method. It is unusual to choose a qualitative method for a research involving health but IPA is gaining popularity within UK as a research method. Three master themes were identified as: Penetrative experiences, Dealing with the problem, Resolution.

Results: Results show the importance of the first experience of penetration. First penetration was not necessary a penile penetration. Dealing with LLV was lengthy and winding process and some professionals were not always helpful. Talking did help and resolution of the problem created relief and provided hope and possibilities for the women with LLV.

Conclusion: The most important task was giving voices to women who suffer from LLV as the method insists on providing as close as possible individual experience.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-08 Male sexual dysfunction: ED surgical treatment

HP-08-001

TWENTY YEARS OF PLAQUE INCISION AND GRAFTING FOR PEYRONIE'S DISEASE: A SYSTEMATIC REVIEW

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Objective: Plaque Incision and Grafting (PIG) is indicated for men with complex or severe penile curvature and, despite a multitude of incision types and grafting materials having been used, no individual technique has proven superiority. The primary objective was to assess outcomes following PIG and the secondary aim was to understand the operative technique.

Methods: A systematic review was performed to find all relevant studies reporting the use of the PIG technique to correct curvature resulting from Peyronie's disease. Studies were included if they had greater than 40 participants, were written in the English language, and no penile prosthesis was implanted.

Results: Twelve studies were included in the quantitative synthesis, which overall report on the results of 1025 patients. Careful patient selection was critical, with erectile function requiring assessment with the International Index of Erectile Function (IIEF), subjective patient reports, and consideration of whether erections are pharmacologically aided. There was no evidence of superiority in favour of any particular incision type or

grafting material, and absorbable sutures were clearly favoured. Post-operatively, 4.6-67.4% required pharmacologically aided erections and 0.0-11.8% were completely unable to achieve erections. Successful straightening occurred in 80.0-96.4%, although there was no consistent definition of success. Penile length was unchanged in 44.2-95.0%. 88.0-92.0% of patients were satisfied and 0.7-4.7% required reoperation. Altered sensation occurred in 2.0-22.5% of patients, of which 80.0-100.0% was only a transient loss.

Conclusion: All outcomes were heterogeneously reported. There are no clear predictive factors for erectile dysfunction following PIG surgery. No single incision type nor grafting material has proven superiority. Plaque Incision and Grafting is an effective and safe technique to correct complex or severe penile curvature in terms of satisfaction, length change, straightening and complications.

Policy of full disclosure: None

HP-08-003

PENILE CURVATURE: CONSERVATIVE VERSUS SURGICAL TREATMENT?

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Objective: To review the considerations taken for offering the best individually-fit type of therapy (injection of collagenase, surgery or follow-up only) for patients with PD according to physician and patients' preferences.

Methods: From August 2015-July 2018, retrospective data was collected on patients with varying levels of PD, including curvature size, plaque size and location, sexual function and patient preferences for therapeutic intervention, provided treatments and complications.

Results: During this period, 177 patients with PD were enrolled. Fifty-three patients (30%) did not require any intervention due to minimal penile deviation and normal sexual function. Of the 124 who continued follow-up (mean 14 months), 74 were candidates to surgery, and by the time the data was reviewed 46 had been operated. During follow-up we found that patients were concerned about penis shortening resulting from surgery, and expressed less concern about injection therapy. Only 18 were offered the option of injection therapy. Twenty-five were not suitable for injections because of the degree of curvature (3 patients with complex deformations, 5 with a significant lateral deviation, 4 with ventral curvature). Plaques were very solid (n=8) or inaccessible for injection (n=1). Two were with severe erectile dysfunction and 2 preferred optimal straightening of the penis. Of the remaining 18 that were suitable for both injection and surgery, the advantages/disadvantages of each method were explained; 15 chose injection therapy and 3 chose surgery. A total of 15 (33%) had injections, the rest 35 (66%) underwent surgical treatment although the majority expressed concern about penile shortening. Three underwent prosthetic implantation. No treatment method had significant complications.

Conclusion: Most PD patients are suitable candidates for surgery and curvature repair, while injection therapy is appropriate for a selected group of PD patients. The patient's preference should be considered only after clarifying the advantages/disadvantages of each therapeutic approach. Injection therapy is attractive to patients who are concerned about penile shortening in surgery, but this treatment should be limited only to a select group of PD patients with higher chances of success.

Policy of full disclosure: None

HP-08-004

KINESIOLOGY TAPING OF SCROTUM- AN UPDATE OF "MUMMY WRAP"

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³Fyziokomplex, Prague, Czech Republic; ⁴Università degli Studi di Bari, Italy

Objective: After penile prosthesis (PP) implantation scrotum is prone to hematoma and oedema development. Elastic bandage "Mummy wrap" or drain are used as a prevention. The bandage often falls down, causes discomfort and disables patient's mobilization and hygiene. We use scrotal kinesiology taping after PP implantation with success.

Methods: Kinesiology tape is a thin, stretchy, elastic cotton strip with an acrylic adhesive, which is widely used for treatment of variety of orthopedic, neuromuscular and neurological conditions. It is easy and fast to apply. Its tension reduces bleeding, swelling and helps lymph to drain. Kinesiology tapes do not irritate skin and they should stay in the place up to 7 days, with no mobility restriction.

Results: In Prague we have implanted 14 three-piece inflatable penile implants in last twelve months (September 2017- September 2018) with use of kinesiology scrotal taping. None of the patients had prolonged scrotal oedema or scrotal hematoma. In comparison with patients done in previous period (March 2016- September 2017) 15 penile implants (13

three-piece inflatable, 2 malleable) with use of "mummy wrap"- 3 patients suffered from scrotal oedema more than two weeks after the procedure.

Conclusion: Scrotal kinesiology taping is an easy and effective method of oedema and hematoma prevention and treatment, moreover it is comfortable for patients. This method could play role not only in penile prosthesis implantation, but also in other procedures prone to the scrotal swelling.

Policy of full disclosure: None

HP-08-005

EXPERIENCE WITH INCISIONAL CORPOROPLASTY FOR THE CORRECTION OF PENILE CURVATURE

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Objective: Incisional corporoplasty, an approach for operating on the convex side of the penis, is indicated for curvature <60 degrees and no concern of length loss. The primary objective was to investigate the overall results of different types of incisional corporoplasty (Nesbit Procedure, Yachia Technique, and Combined Nesbit/Yachia) at our institution.

Methods: A retrospective analysis was performed on 63 patients who underwent a penile-shortening procedure to correct penile curvature. Patients had either Peyronie's disease (n=58) or congenital penile curvature (n=5). Penile-shortening procedures included the Nesbit procedure (N=25), Yachia procedure (N=30), and a combination of the two techniques (N=8). The mean age was 54.1 years, mean deviation was 48.1 degrees and mean follow-up period was 97.8 days.

Results: Coital function (p < .001) and erectile function (p = .001) were significantly improved, and straightening was achieved in 85.7%. Complication rates were 23.8% erectile dysfunction, 3.2% hypoesthesia, 1.6% shortening and 0% recurrent curvature. Binary logistic regression revealed neither age, deformity, nor comorbidity significantly predicted erectile dysfunction (p = .796). The procedure was considered a success in 95.2% of patients.

Conclusion: Penile-shortening procedures provide excellent overall success and correction of curvature. There were no clear predictive factors for postoperative erectile dysfunction. Penile-shortening procedures can be considered safe and effective for men with penile curvature.

Policy of full disclosure: None

HP-08-006

PENILE IMPLANTATION AS TREATMENT OPTION FOR PREMATURE EJACULATION: WHAT THE PATIENT GETS?

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Objective: To assess effects of penile implantation on intercourse satisfaction (IIEFQ7), overall sexual satisfaction (IIEFQ13), satisfaction with sexual relationships with partner (IIEFQ14) in patients with PE who discontinued local anesthetics (LA), PDE5i and dapoxetine.

Methods: 37 patients (35-44 years old) with PE who discontinued local anesthetics (LA), PDE5i and dapoxetine due to lack of efficacy or side effects were enrolled. At baseline sexual functions were assessed by means of IIEF. 6

mo after implantation with short form of IIEF (Q7, Q13, Q14). All patients were implanted with malleable ones. Clinical effect was measured by calculating 95% CI of difference of means. $t=1,993$ for 0,05% and $P=72$. Results: At baseline all scores were decreased as a result of negative impact of PE on sexual function (Table 1). 6 mo after implantation all of them were clinically significantly improved.

Conclusion: Penile implantation clinically significantly improves quality of sexual life in patients with PE and should be considered as treatment option when conservative modalities are discontinued.

Policy of full disclosure: None

HP-08-007

A PROSPECTIVE RANDOMIZED PLACEBO CONTROLLED STUDY EVALUATING THE EFFECT OF LOW-INTENSITY EXTRACORPOREAL SHOCKWAVE THERAPY (LI-ESWT) IN MEN WITH ERECTILE DYSFUNCTION FOLLOWING RADICAL PROSTATECTOMY

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Objective: Previous studies have showed that low-intensity extracorporeal shockwave therapy (Li-ESWT) can improve male erectile dysfunction (ED)



of vascular etiology. We want to investigate the effect of Li-ESWT, in a randomized, placebo-controlled trial, in men following radical prostatectomy (RP).

Methods: Men with ED following nerve-sparing RP, with ED score < 22, based on the 5-item international index of erectile function (IIEF-5) questionnaire were included. Participants were divided into an active (n=18) and a placebo/sham group (n=16). They were block-randomized consecutively when entering the study. Each group had one Li-ESWT treatment a week for five weeks, using the Duolith® SD1 shockwave machine (Storz Medical). Median change (MC) in erectile function (EF) scores were evaluated by international validated questionnaires, erection hardness score (EHS) and IIEF-5 at baseline and by 4 (F1) and 12 weeks (F2) after last treatment respectively.

Results: A total of thirty-four (n=34) participants were enrolled. thirty-two participants (n=18, active and n=14, placebo) reached F1 before deadline of this abstract. No dropouts were registered throughout the study period. Ten participants in the active group (55%) improved EF at F1. MC of IIEF-5 and EHS in the active group was 2 and 0 respectively. MC for IIEF-5 was statistically significant ($p=0,03$). In the placebo group, MC in IIEF-5 was 1 and 0 in EHS (not significant).

Conclusion: The preliminary results in this study indicate that Li-ESWT for ED in men following RP could be effective. Li-ESWT has a potential to become a new treatment modality for ED after RP.

Policy of full disclosure: None

21st Congress of the European Society for Sexual Medicine: HP-09 Male sexual dysfunction: IPP

HP-09-001

CURRENT STRATEGIES IN THE MANAGEMENT OF PEYRONIE'S DISEASE (PD) - RESULTS OF A SURVEY OF SEXUAL MEDICINE EXPERTS ACROSS EUROPE

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Objective: Up to today, no standardized treatment algorithm for Peyronie's Disease (PD) has been published. Based on this, the aim was to learn about the current PD management strategies applied by Sexual Medicine experts across Europe

Methods: Sexual Medicine experts across Europe - mostly urologists with the majority of them being members of the European Society for Sexual Medicine (ESSM) - were contacted and asked to fill in an online questionnaire, consisting of 56 items and developed by the Educational committee of the ESSM. In the end, 401 filled in the survey of which 277 reported treating PD themselves.

Results: 78.1% of respondents were male with the majority (77.9%) specialized in Urology. 83.2% followed a specific diagnostic program, with 82.9% using questionnaires such as the International Index of Erectile Function (64.6%). The variety of treatment options used will be reported. With respect to intralesional therapy, collagenase was the leading substance (33.6%), followed by calcium channel blockers (16.6%). Almost half of collagenase prescribers were satisfied (45.6%) or very satisfied (4.6%) with the treatment outcomes, whereas 37.6% were neither satisfied nor dissatisfied and 12.8% were dissatisfied or very dissatisfied. 184 respondents stated not using collagenase with nearly half of them saying that the costs are too



high. Of the 36.3% applying extracorporeal shock-wave therapy (ESWT). 41.1% used ESWT only in calcified plaques. 95% of respondents recommended surgical procedures regularly and 73.9% performed surgery personally. The preferred surgical procedure was Nesbit (32.8%), followed by tunica plication (27.2%). Almost two thirds indicated involving the partner in the decision-making process of which therapy form to use (60.2%).

Conclusion: This representative survey with over 400 participants filling in a very comprehensive 56 items containing questionnaire mirrors the current status quo in the management of PD among Sexual Medicine experts in Europe.

Policy of full disclosure: Andrea Burri is an advisory board member and consultant for A. Menarini Pharmaceuticals. Hartmut Porst is a consultant and speaker for Berlin Chemie/Menarini group and Recordati.

HP-09-002

OUTCOMES FROM A SINGLE-CENTER PROSPECTIVE POST-MARKETING STUDY ON COLLAGENASE CLOSTRIDIUM HISTOLYTICUM INJECTIONS FOR PEYRONIE'S DISEASE

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Objective: To prospectively evaluate outcomes of Collagenase Clostridium Histolyticum injections (CCHI) for Peyronie's Disease.



Methods: IRB approval was obtained for this study. Data was prospectively collected to evaluate patients undergoing treatment with CCHi for Peyronie's Disease between 01/2016-08/2018. A total of 34 patients with dorsal, dorsolateral or lateral penile curvatures between 30-90 degrees, and treated with 1-4 cycles of CCHi, were asked to fill out the "bother domain" of the Peyronie's Disease Questionnaire (PDQ) at scheduled appointments for injections. Seven patients were excluded from analysis due to missing baseline values. Each CCHi cycle involved two injections (0.58mg) separated by 48-72 hours. Cycles were separated by at least 6 weeks. A one-way repeated measures ANOVA was conducted to evaluate the null-hypothesis that there is no change in patients' PDQ scores following injections. Pairwise comparisons were performed using paired samples t-test.

Results: Patients had a mean (standard deviation) age of 60 (9) years and a mean pre-treatment curvature degree of 56 (20) degrees. The curvature direction was dorsal, dorsolateral and lateral in 22, 2 and 3 patients, respectively. The mean baseline PDQ bother domain scores was 11.1 (2.6). ANOVA results demonstrated a statistically significant effect of injections ($p < 0.001$) with statistically significant decreases in PDQ bother domain scores 6 weeks after the first cycle (9.9 (3.3), $p = 0.013$), 6 weeks after the second cycle (8.2 (4.0), $p = 0.009$) and 6 weeks after the third cycle (6.5 (3.6), $p < 0.001$). After 2-4 cycles of CCHi patients reported changes in penile curvature as "Worse" (0), "No Change" (2), "Little decrease" (10), "Decrease" (10) and "Significant decrease" (4).

Conclusion: Patients with Peyronie's Disease treated with CCHi report statistically significant decreases in PDQ bother domain scores and the majority report a decrease in penile curvature after treatment.

Policy of full disclosure: DAO and SQ were investigators for Endo Pharmaceutical. The remaining authors have no conflicts of interest.

HP-09-003

SAFETY OF COLLAGENASE CLOSTRIDIUM HISTOLYTICUM IN PATIENTS AFFECTED BY PEYRONIE'S DISEASE UNDER ANTI-PLATELETS OR ANTI-COAGULANTS

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Objective: Collagenase Clostridium histolyticum (CCH) injections represent the only licensed medical treatment for Peyronie's disease (PD). Anti-platelet or platelet aggregation inhibitor drugs inhibit the aggregation of platelets, thereby avoiding platelet clot formation and suppressing the first hemostatic phase. In contrast, anticoagulant drugs inhibit the enzyme vitamin K reductase, which mediates conversion of vitamin K epoxide to its active form. As a result, the formation of coagulation factors dependent upon this active form is inhibited, and the coagulation process is blocked. The purpose of this study was to assess the safety and efficacy of CCH injection in the improvement of penile curvature in a group of patients with PD receiving anticoagulant and/or antiplatelet therapy.

Methods: Between November 2016 and June 2018 we enrolled in this analysis 371 patients. All the patients enrolled underwent a thorough assessment, which included history taking, physical examination, and pharmacologically induced artificial erection test (intra-cavernous injection) to assess the degree of penile curvature (PC) at baseline and after the completion of the treatment. The protocol consisted of three intra-lesional injections of CCH (0.9 mg) given at 4-weekly intervals. Only patients receiving anticoagulant and/or antiplatelet therapy were included for the analysis.

Results: A total of 12 patients were included in the analysis, 8 (66.67%) receiving anti-platelets and 4 (33.33%) receiving anti-platelets + anti-coagulants. Median age was 61.0 yrs (IQR 56.0-66.50), median curvature was 45.0° (IQR 30.0-60.0) and median duration of the disease was 9.5 yrs (IQR 5.0-15.0). Median changes of PC were -15.0 (IQR -20.0, -10.0; $p < 0.01$) and

the rate of PC success (improvement $\geq 20^\circ$) was 41.6% (5/12). Complications were as following: no complications in 5 (41.67%), haematoma in 5 (41.67%) and ecchymosis in 2 (16.67%) but any penile fracture was registered. No association was found between PC success and side effects ($p = 0.74$).

Conclusion: Clinical effects of CCH therapy in patients under anti-platelets and/or anti-coagulants is safe and equally effective in patients affected by PD. Although we found a 58.3% of low/moderate side effects, these patients may not benefit from wash-out of their therapy due from cardiovascular comorbidities.

Policy of full disclosure: None

HP-09-004

SAFETY AND EFFECTIVENESS OF COLLAGENASE CLOSTRIDIUM HISTOLYTICUM (CCH) IN THE TREATMENT OF ACTIVE PEYRONIE'S DISEASE

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Objective: To evaluate the efficacy and safety of Collagenase Clostridium Histolyticum (CCH) (Xiapex®) in the treatment of active Peyronie's disease (PD) at a single centre.

Methods: This is a clinical audit of patients, with active Peyronie's disease, who underwent CCH treatment at our center. Assessment of the angle of curvature was performed at baseline and 4 weeks after each treatment. Each treatment consisted of a single intralesional injection of CCH (0.9 mg), given in a fan-shaped manner, in the plaque around the point of maximum curvature. If needed, CCH injections were repeated at 4-week intervals. In between injections, patients used a combination of home manual plaque-modelling, a vacuum device and a penile-stretching device on a daily basis. **Results:** To date, a total of 15 patients with active PD have completed CCH treatment and are under follow up. At baseline: the mean duration of PD was 5.3(1-10) months; PD pain was present in 9 patients; and the mean penile curvature was 49.5° (30°-80°). All but 1 patient had an improvement in curvature with a mean value of 26.5° (0°-42°) or 54.4% from baseline (0-75%). The end mean curvature was 23° (10°-45°; $p \leq 0.001$). The mean number of CCH injections needed was 2.6 (1-8). 12 patients were completely satisfied with CCH treatment and will use traction therapy until PD stabilises, and 3 patients are moderately satisfied (2 of whom will have a plication surgery to deal with the residual curvature after PD stabilises). The single patient who did not achieve improvement in the dorsal curvature was also moderately satisfied as he had a lateral component of 30° which disappeared. As in stable disease, CCH in active PD was well tolerated by all patients with only mild and transient penile swelling and bruising occurring in all participants, but no systemic adverse events.

Conclusion: CCH treatment in active PD is safe, more efficacious and cost-effective than in stable disease.

Policy of full disclosure: The author Dr Amr Raheem is a consultant for Sobi and auxillium

HP-09-005

A PROSPECTIVE RANDOMIZED PLACEBO CONTROLLED STUDY EVALUATING THE COMBINED EFFECT OF LOW-INTENSITY EXTRACORPOREAL SHOCKWAVE THERAPY (LI-ESWT) AND VACUUM ERECTILE DEVICE ON PEYRONIE'S DISEASE

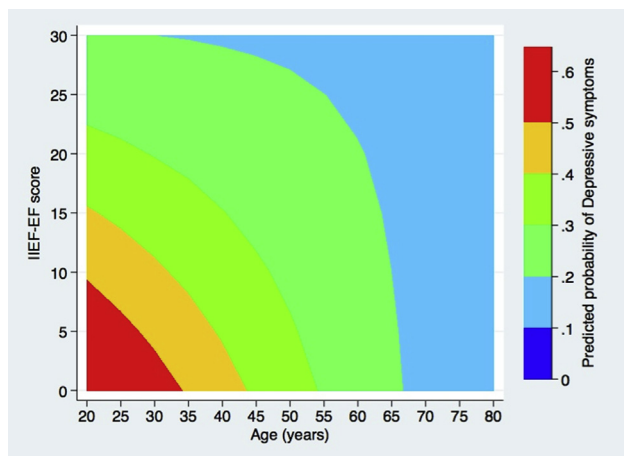
Mortensen, J.¹; Bill Juul Ladegaard, P.²; Møller Skov-Jepesen, S.²; Lund, L.²

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Objective: We want to study the efficacy of LI-ESWT combined with a vacuum pump followed by manipulation exercises.

Methods: Patients with PD in stable phase (n=17) were randomly assigned to each group, ESWT n=9 or placebo n=8. All patients were treated once a week for 5 consecutive weeks. At baseline an ultrasound was conducted to examine whether the plaque was calcified. All patients received similar instructions on how to utilize the vacuum pump followed by manipulation exercises. Patients submitted pictures at baseline to assess penile curvature and filled out questionnaires; Peyronies Disease Questionnaire (PDQ) and International Index of Erectile Function-5 (IIEF-5).

Results: Seventeen patients were included, and no dropouts. Mean change in penile curvature was -17.56 degrees in the active group, and -7.88 in the placebo (p=0.066). Mean IIEF-5 increased by 1 in the active group and decreased by 0.4 in the placebo group (p=0.36). PDQ pain score decreased by 2.1 in the active group, and increased by 0.1 in the placebo group (p=0.072).



Conclusion: These preliminary results suggest that LI-ESWT and vacuum pump combined with manipulation exercises may represent a viable non invasive treatment for men diagnosed with PD. The trial is on-going in order to see whether there is potential of combining LI-ESWT with a vacuum pump followed by manipulation exercises.

Policy of full disclosure: None

HP-09-006

FIRST RESULTS OF PLATELET-RICH PLASMA AND LOW INTENSITY EXTRACORPOREAL SHOCKWAVE COMBINED THERAPY FOR ERECTILE DYSFUNCTION

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Objective: Platelet-rich plasma (PRP) demonstrated its safety and effectiveness as monotherapy for erectile dysfunction (ED), as well as low-intensity extracorporeal shockwave therapy (LI-ESWT). The purpose of the present study was to evaluate safety and effectiveness of their combined use for treating ED. We hypothesized that angiogenic, neuroprotective and neurogenic effects of PRP could be enhanced by the LI-ESWT.

Methods: 10 men, mean age of 44.25 (22-69), experiencing ED symptoms for 2.95 years, were included into the study for 60 days. Patients were treated with 6 rounds of intracavernous PRP injections activated with 10% CaCl₂ solution and 12 LI-ESWT procedures during 6 weeks. Each PRP injection

was performed in middle and distal corpus cavernosum parts bilaterally. 2000 waves were applied at every LI-ESWT procedure to each cavernous body. Effects of combined therapy were assessed by validated questionnaires (IIEF-5, SEP, GAQ) and penile duplex Doppler ultrasound (PDDU) with intracavernous PgE1 injection.

Results: Combined therapy improved erectile function parameters in all the patients. Obtained data showed that IIEF-5 increased from 12.4 (9-18) to 18.6 (15-23) and SEP results increased from 1,6 (1-2) to 3,7 (3-5). All patients noted positive treatment effect according to GAQ. Mean PSV and RI was 29.87 sm/sec and 0.86, respectively, on the 0 day. After 60 days PDDU showed that PSV reached 39.69 sm/sec and RI improved from 0.86 to 0.91.

Conclusion: There were no serious adverse events as well as severe adverse events. Erectile dysfunction symptoms in all men participated in the study significantly decreased after treatment with PRP-therapy and extracorporeal shockwave therapy through angiogenic, neuroprotective effects and collagen I, III and IV balance maintaining. The clinical trial is to be continued.

Policy of full disclosure: None

HP-09-007

THE USE OF A PENILE TRACTION DEVICE REDUCES THE NEED OF CYCLES OF COLLAGENASE IN PATIENTS WITH PEYRONIE'S DISEASE

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Objective: To present our experience and results with the use of collagenase of the Clostridium Histolyticum (Xiapex®) plus manual modeling and a penile traction device (PTD) in the treatment of Peyronie's Disease (PD).

Methods: We prospectively collected all patients diagnosed with PD and treated with this combination therapy in two healthcare centres. Inclusion criteria were: age >18, informed consent given, palpable plaque, curvature >30°, adequate previous manipulation of a PTD, and important disturbance of sexual intercourse. We excluded patients with severe calcification of the plaque. We collected all demographic data, IIEF-5 and PDQ scores, comorbidities, time since onset of symptoms, and assessed the curvature with a Kelami test. We offered the patients a maximum of 4 cycles, each one consisting on 2 injections in 24-72 hours time, and followed by 6 weeks of manual modelling and a minimum of 4 hours of daily use of a PTD. We stopped the protocol if no improvement was observed after the cycle, or continued it until the curvature was <30° or the patient managed with the residual one.

Results: 63 patients were available at the time of the analysis of the data. 4 were lost to follow, so 59 were available for the analysis. Mean basal curvature was 60.44° (30-100). 59 patients received 1 cycle, 41 received 2 cycles, 15 received 3 cycles, and 4 received 4 cycles. Mean curvature at the end of the treatment was 36.05° (0-90) with a reduction of -24.39° (-40.35%). 15 patients required additional surgical treatment (7 grafting and 8 plication). The mean number of cycles was 2.07 (1-4).

Conclusion: The combination of the use of a PTD with Xiapex® is useful to reduce the number of cycles achieving similar results to those in the literature, and improving the cost-efficacy of the treatment.

Policy of full disclosure: None

PO-01-001

THE EFFICACY OF VITAMIN D/ZINC SUPPLEMENTATION ON ERECTILE DYSFUNCTION: A 3-MONTH PILOT STUDY

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Objective: This study aimed to evaluate the therapeutic effect of vitamin D (VD)/zinc supplementation for elderly erectile dysfunction (ED) patients.

Methods: In this prospective, single-arm pilot study, 28 patients (mean age 65.1 ± 6.5 ; range 54-84 years) who complaints erectile dysfunction were recruited between February 2018 and April 2018. The medical history and laboratory test including lipid profile, HbA1c, serum testosterone and serum vitamin D -25(OH) D were obtained at baseline. All patients were given vitamin D3 1,000 IU/day and zinc 12mg/day for 12 weeks, and asked to complete the International Index of Erectile Function (IIEF-5) questionnaire at baseline and post treatment 12 weeks.

Results: Vitamin D deficiency (<20 ng/mL) was present in 19 patients (67.9%) and their mean VD level was 11.2 ± 3.9 ng/mL. Mean age, body mass index, lipid profile, HbA1c and serum testosterone were similar between men with VD deficiency and without VD deficiency. The IIEF-5 score was increased significantly in men with VD deficiency (from 11.2 ± 4.9 to 14.2 ± 5.8 , $p < 0.01$), while it does not observed in men without VD deficiency (from 9.3 ± 6.4 to 8.3 ± 4.6 , $p < 0.526$).

Conclusion: This study showed that VD/zinc supplementation improves erectile function in elderly men with VD deficiency. Large scale and randomized placebo-controlled interventional trials of VD treatment in patients with ED is necessary to identify the putative roles of VD/zinc treatment in ED.

Policy of full disclosure: None

PO-01-002

SEXUAL INTERCOURSE BEFORE PUMPING UP: IS IT A PROBLEM?

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¹Sisli Etfal EAH, Turkey; ²Sisli Etfal EAH, Istanbul, Turkey

Objective: It was believed that sexual intercourse before an athletic competition had a negative impact on athletic performance since ancient Greece. Therefore, we aimed to evaluate the effects of sexual intercourse on muscle training performance.

Methods: 38 healthy, physically and sexually active men; between 28 to 31 years old, were enrolled in the study. The maximum weight was found to perform 5 repetitions of squat for each participant. The sexual intercourse was determined to be male-active and lasted minimum 10 minutes to maximum 20 minutes. The participants performed squat after engaged in or abstaining from sexual intercourse the night before. After baseline testing, the authors decided that two additional sessions would be required, one held after completion of sexual intercourse the night before or abstention.

Results: The maximum weight for 5 repetitions of the squat was found to be the same after men engaged in or abstained from sexual intercourse within the previous 24 hours.

Conclusion: Results demonstrate that sexual intercourse does not significantly impact on lower extremity muscle force, which suggests that restricting sexual activity before a short-term activity is unnecessary.

Policy of full disclosure: None

PO-01-004

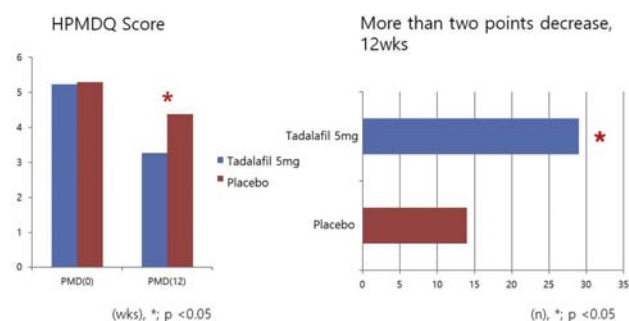
PHYTOTHERAPY COULD IMPROVE SPERM COLLECTION RATE IN PSYCHOGENIC ANEJACULATION AFFECTING COUPLES INVOLVED IN ASSISTED REPRODUCTION PROTOCOLS

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Objective: Assisted Reproduction Units face difficulties in collecting sperms during procedures, in particular when it should be contestual to ovuli "Pick-up" in female partner. Cryopreservation permits deferred storage of semen, but sometimes this phenomenon occurs also in this context. This aspect is particular form of psychogenic anejaculation, associated to anxiety and guilt in male. We are evaluating two different treatment protocols, used in our clinic to permit collection of semen for Cryopreservation in patients that already referred psychogenic anejaculation, with aim to guarantee possibility of in vitro fertilisation.

Methods: 38 patients showed or referred psychogenic anejaculation previously to be inserted in AR protocols (during attempt of capacitation tests or "scheduled intercourse") during last 3 years in our ART clinic. For this reason, cryopreservation of semen collected by masturbation has been scheduled. 20 were prepared with antioxydant protocols starting 20 days before collection attempt (group A), than 18 were prepared with antioxydant and *Leptidium meyenii*/Panax/Zinc commercially available formulation (VISSEX®, Labortest, IT) (group B). Average age of patients in two groups was not statistically different. Chi-square test has been used to compare success rate in two groups.



Results: In group A, 11 patients were able to collect semen (55%), in group B 16 (88%). Chi-square test showed significant difference ($p = 0.02$) in group B, in which VISSEX® has been associated to antioxydant treatment.

Conclusion: Also if sample size is a big limitation, it seems that Vissex could reduce psychogenic anejaculation, at least in couple in which AR is scheduled and anejaculation could affect Results and procedures. Otherwise, our aim is to improve sample size to confirm our results.

Policy of full disclosure: None

PO-01-005

TRADAMIXIN IMPROVES LIBIDO ALSO IN PATIENTS AFFECTED BY IATROGENIC ERECTILE DYSFUNCTION, INDEPENDENTLY TO EFFECT ON THIS SECOND SYMPTOM

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¹Istituto "Città di Brescia", Studio "Atheneum", Italy; ²Istituto "Città di Brescia", Italy; ³Istituto "Città di Brescia", Italy

Objective: We tried to evaluate role of Tradamixin in patients treated for Lower Urinary Symptoms and claiming to mild or moderate erectile dysfunction related to combination (alpha-blocker-5 alpha-reductase inhibitors) treatment.

Methods: A large amount of patients affected by LUTS and treated with combination therapy underwent evaluation by ASEX questionnaire. Between them, 30 claimed for moderate effect of therapy on item 1, 2 and 3a (3 points, differently to 1 score referred before treatment start). Between inclusion criteria, there was no other drug treatment in the same period. In this particular population, we tried to treat them by tramadexin once a day for 60 days. We evaluated ASEX questionnaire at the end of treatment. We considered a significant improvement in analyzed items return to 1 score.

Results: 18 claimed of improvement in 3a items (group A, 60%), then 12 referred an enduring score of 3 or an increase of only one point (group B, no worsening has been referred after treatment). Increase in item 1 and 2 has been referred in a large amount of patients (25, 83%). Improvement has been always reported contextually in item 1 and 2. Interestingly, no difference has been reported in two different group A and B (15/18 in group A, 10/12 in group B, no statistical difference).

Conclusion: Tramadexin could have a role and could be evaluated in treatment of mild or moderate iatrogenic sexual symptoms referred by patients treated with combination therapy for LUTS. In particular, effect on erectile dysfunction is significant independently to effect on libido. This aspect could be strongly improved by Tramadexin. More data are needed, increasing sample size.

Policy of full disclosure: N. Arrighi collaborates as Consultant with Bio-health Italia Srl (IT)

PO-01-006

INTRA-OPERATIVE AUDIBLE MICRO-DOPPLER ULTRASOUND FOR MICROSURGICAL VARICOCELECTOMY

Asci, A.²; Cihan, A.²; Sahin, B.²; Deliktas, H.³; Cinar, O.⁴; Ongun, S.²; Turunc, T.⁵; Gul, U.⁵; Kizilkan, Y.⁶; Gudeloglu, A.¹

¹Hacettepe University, Faculty of Medicine, Turkey; ²Turkish Andrology Study Group, Istanbul, Turkey; ³Turkish Andrology Study Group, Mugla, Turkey;

⁴Turkish Andrology Study Group, Zonguldak, Turkey; ⁵Turkish Andrology Study Group, Adana, Turkey; ⁶Turkish Andrology Study Group, Mus, Turkey

Objective: Introduction of operative microscope for microsurgical varicocelectomy procedure enabled microsurgeons to assess vessels up to 15x magnification. Despite the magnification, however there is still risk for testicular arterial injury. There is an audible micro-Doppler ultrasound probe

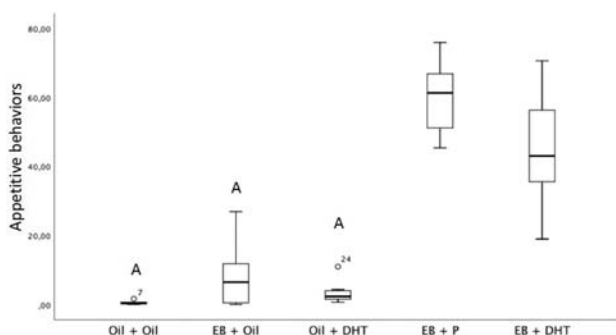


Figure. Median frequency of appetitive behaviors of ovariectomized Long-Evans rats following acute injections of various hormone treatment combinations. The first injection (EB or Oil) was given 48 h prior and the second (DHT, P or Oil) 4 h prior to behavioral testing. Data were analyzed using Kruskal-Wallis to detect differences between groups, and significant effects were followed up using Mann-Whitney U, with a corrected p-value set at $p < 0.01$. Boxes represent interquartile range, and whiskers each represent the top and bottom 25% of scores. O: sesame oil, EB: estradiol benzoate, 10 mcg; P: progesterone, 500 mcg; DHT: dihydrotestosterone, 500 mcg. ° = Outlier. A = Different from EB + DHT. N = 12/group.

that could be used intra-operatively in order to minimize the risk of arterial injury. The goal of this study was to investigate the necessity of intra-operative micro-Doppler ultrasound for microsurgical varicocelectomy procedures.

Methods: A total of 10 vessels was dissected during various microsurgical varicocelectomy procedures and vascular confirmation was performed by using intra-operative micro-Doppler probe (VTI Technologies Inc., Nashua/USA). Then 10 seconds short videos of vessels were recorded. 13 experienced andrology specialists were asked to identification of the vessels through short videos. Chi-Square test was used for statistical analysis.

Results: A total of 10 vessels (4 veins and 6 arteries) were blindly assessed. False respond rates for veins were: 15.4% ($p < 0.001$), 23.1% ($p < 0.001$), 30.8% ($p < 0.001$), and 84.6% ($p < 0.001$). False respond rates for arteries were: 23.1% ($p < 0.001$), 46.2% ($p < 0.001$), 53.8% ($p < 0.001$), 69.2% ($p < 0.001$), 69.2% ($p < 0.001$), and 76.9% ($p < 0.001$).

Conclusion: There may be clinical benefit with utilization of intra-operative micro-Doppler ultrasound during microsurgical varicocelectomy in order to avoid testicular arterial injury. Further comparative studies are needed.

Policy of full disclosure: None

PO-01-007

EFFECTS OF NUTRACEUTICALS ON SEXUAL SATISFACTION AND LOWER URINARY TRACT SYMPTOMS IN A COHORT OF YOUNG/OLD MEN

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Objective: The aim of this study was to evaluate the effects of nutraceuticals containing multiple supplemental facts (Virherbe®/Rekupro®) on sexual satisfaction and lower urinary tract symptoms (LUTS) in young—old men.

Methods: In an open-label trial, 40 males (mean age 66 ± 13) with sexual disturbances and mild LUTS but without cognitive/motor impairment and clinical hypogonadism were enrolled. Sexual desire (SD; IIEF-SD domain) and satisfaction (Global Assessment Question; GAQ), the capacity to perform daily activities (evaluated by 6-min walking test [6MWT]), and International Prostate Symptoms Scores (IPSS) were evaluated before and after oral administration of 2 capsules/day of each supplement for 8 weeks. Subjects were admitted to assume PDE5i as complimentary therapy if ED was present.

Results: The difference from baseline for SD was +2.6 ($p < .05$) and -4.2 points for IPSS ($p < .05$), with significance in subscales of urinary streaming/nocturia ($p < .01$), respectively; 6MWT increased from 507 ± 44 versus 527 ± 58 meters ($p < .001$). GAQ scale-responses showed overall improvement in overall 75% population, with a significant improvement in QoL ($p < .01$). These changes returned to baseline at 1-month withdrawal follow-up. No adverse events were reported.

Conclusion: These use of such supplemental facts improved sexual desire, satisfaction with sex life, physical performance, and LUTS in young—old men, suggesting that they may be effective in patients in whom standard treatments are not suitable.

Policy of full disclosure: None

PO-01-008

GENDER DIFFERENCE AND CORRELATION BETWEEN SEXUALITY, THYROID HORMONES, COGNITIVE AND PHYSICAL FUNCTIONS IN ELDERLY FIT

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Objective: Sexuality in the elderly is related to psycho-physical well-being. Aim of this study was to analyze the correlation between sexual health,

thyroid hormones, cognitive functions, and physical fitness in elderly population.

Methods: Fifty-one fit adults were recruited (age: 71.9 ± 5.3 years-old, 26 females and 25 males). Sexuality was evaluated using the Changes in Sexual Functioning Questionnaire-short form (CSFQ-14) and the Sexual Attitude Scale (SAS). Thyroid function was assessed by measuring serum TSH, FT3, FT4. Cognitive functions and depressive symptoms were evaluated by the Mini Mental State Examination (MMSE) test and Geriatric Depression Scale (GDS) scores. Subjects' physical fitness was evaluated using the following tests: Short Physical Performance Battery (SPPB), Handgrip test (HG), Timed Up and Go test (TUG), and 2-Minute step test (ST).

Results: CSFQ-14 positively correlated with MMSE ($p < 0.05$) and negatively with GDS ($p < 0.05$) while thyroid function was not correlated with sexuality, in both genders. A negative relationship between FT4 vs. weight, FT3 vs. HG and FT3/FT4 ratio vs. ST were found ($p = 0.05$) in females while in males it occurred for TSH vs. TUG ($p < 0.05$); a positive relationship existed in females between FT4 vs. ST ($p < 0.05$). Finally, CSFQ-14 was significantly correlated with SPPB ($p < 0.05$), CST, TUG and ST ($p < 0.01$), in both genders.

Conclusion: We demonstrated a strict relationship between active sexuality, preserved cognitive function and appropriate physical fitness in elderly subjects, independently from gender. Our preliminary data suggest that in elderly fit population, peripheral thyroxine deiodination may be a useful predictor of better physical performance and more successful ageing.

Policy of full disclosure: Supported by MIUR Grant Ministero della Salute (2015XCR88M_008) to Prof. Antonio Aversa

PO-01-009

ELECTRIC STIMULATION HYPERTHERMIA RELIEVES INFLAMMATION THROUGH INHIBITING TLR4 SIGNAL TRANSDUCTION IN CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME



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Objective: The chronic prostatitis (CP), including chronic pelvic pain syndrome (CPPS), is the most commonly prostatitis case, which is a highly prevalent syndrome with significant decreased quality of life. However, there are insufficient data supporting the use of devices, and the exact mechanism has not been determined so far. The aim of this study was to evaluate the effect of electric stimulation (ES) on CP/CPPS and explore the mechanism. **Methods:** RWPE-2 cells randomly divided into 4 groups: 1) sham control group, 2) lipopolysaccharide (LPS) inducing inflammation group, 3) ES treated (frequency without heat) group, and 4) ES treated (frequency with heat) group. Cells in inflammation and treatment groups were stimulated by LPS inducing inflammation. Sprague-Dawley rats ($n = 40$) were randomly divided into 4 groups: 1) normal control group, 2) prostatitis group, 3) ES treated (frequency without heat) group, and 4) ES treated (frequency with heat) group. Prostatitis were induced by 17 beta-estradiol and dihydrotestosterone for 4 weeks.

Results: We found that prostatitis+ES (frequency with heat) group significantly promoted HSP70 in vitro and in vivo, and attenuated inflammation through decreased TLR-4, COX-2, NF- κ B and inflammatory cytokines compared with LPS or prostatitis induced group ($P < 0.05$). ES hyperthermia also inhibited apoptosis and relieved inflammatory response in prostatitis tissue.

Conclusion: ES hyperthermia improved CP/CPPS and reversed pathologic changes through inhibiting TLR4 signal transduction. It may be a potential and noninvasive approach for CP/CPPS.

Policy of full disclosure: None

PO-01-010

SYNERGISTIC EFFECTS OF EXTRACORPOREAL SHOCKWAVE THERAPY AND KOREAN HERBAL FORMULATION ON ERECTILE DYSFUNCTION IN DIABETIC ANIMAL MODEL



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Objective: Studies on low-intensity extracorporeal shockwave therapy (ESWT) for the treatment of refractory erectile dysfunction (ED) have been reported to date, but inconclusive evidence has been obtained. KH-204, a Korean herbal formula has been reported to have anti-oxidative effects many times. We investigated the synergy effect of ESWT with KH-204 in an animal model of diabetes mellitus (DM) - induced ED.

Methods: Streptozotocin-induced DM rats were divided into 5 groups: group 1, control; group 2, DM; group 3, DM + ESWT; group 4 DM + KH-204; and group 4 DM + ESWT + KH-204. In ESWT groups rats were treated with ESWT 3 times a week for 2 weeks. The KH-204 groups were treated with a daily oral dose of KH-204 for 12 weeks. After all treatments, intracavernous pressure (ICP) was measured, and the cavernous tissues were evaluated.

Results: ICP was evaluated as a measurement of erectile function. The DM + ESWT, DM + KH-204, and DM + ESWT + KH-204 groups showed significantly restored erectile function compared with the DM group ($p < 0.05$). Among these groups, the DM+ ESWT + KH-204 group showed the highest ICP. Moreover, ESWT and KH-204 treatment restored smooth muscle contents and many parameters related to potency including vascular endothelial growth factor, eNOS, platelet endothelial cell adhesion molecule, cGMP and nNOS expression levels compared with the DM group ($p < 0.05$).

Conclusion: We confirmed the potential efficacy of ESWT and KH-204 in the treatment of ED patients using an animal model. This combination is expected to have good clinical Results in the future treatment of refractory ED. **Policy of full disclosure:** None

PO-01-011

ONCOTESE RESULTS OF AZOOSPERMIC PATIENTS WITH TESTICULAR TUMORS UNDERGOING ORCHIECTOMY AND PATIENTS WITH MALIGNANCIES DEVELOPING AZOOSPERMIA AFTER CYTOTOXIC TREATMENT



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Objective: OncoTESE operation can be performed on azoospermic patients with testicular tumors during orchiectomy, and on patients with malignancies who developed azoospermia after cytotoxic treatment. In this study we aimed to evaluate the sperm retrieval rate of OncoTESE and parameters that might have an effect on OncoTESE Results.

Methods: In this retrospective multicenter study we included 44 patients who underwent OncoTESE between 2003 and 2018. Malignancy types, interval between cytotoxic treatment and OncoTESE operation, age, serum FSH, and testosterone levels, histopathology reports, and SRR were analyzed.

Results: Among 44 patients, 35 received cytotoxic treatment (group I) and 9 had orchiectomy due to testicular tumor (group II). SRR was 47.7% in all groups (45.7% in group I, 55.5% in group II). Histopathological examination was performed in 24 patients. Among group I SRR was highest in patients with testicular tumors (80%).

Conclusion: Azoospermia is a common problem after cytotoxic treatment. Sperm could successfully be retrieved only in nearly half of the patients who undergo OncoTESE. Therefore it is very important to inform patients with malignancies about sperm cryopreservation before they receive cytotoxic treatment.

Policy of full disclosure: None

PO-01-012

TADALAFIL MODULATES AROMATASE AND ANDROGEN RECEPTOR EXPRESSION IN HUMAN PROSTATIC ADENOCARCINOMA CELLS IN VITRO



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Objective: Our previous data suggest that Tadalafil (TAD), a phosphodiesterase type-5 inhibitor, has a direct effect on aromatase (ARO) expression and function in human visceral adipocytes; it also accelerates myogenic differentiation and induces higher expression of the androgen receptor (AR) in murine C2C12 muscle cells. In human osteoblastic cells in vitro, TAD modulates expression of ARO, and increases androgen receptor (AR) protein expression. We herein evaluated the potential modulation of ARO and sex steroid hormone receptors by TAD in prostate adenocarcinoma cells (LNCaP), a cellular in vitro model system of androgen-sensitive human adenocarcinoma.

Methods: First series of experiments were performed to test LNCaP viability upon TAD exposure. Then, cells were treated with/without TAD 10-6M for several interval times to evaluate potential modulation of ARO, AR and estrogen receptor β (ER β) expression.

Results: After 24 hs exposure to TAD, cells increases ARO mRNA expression level ($p < 0.05$) and, as expected, an increase of ARO protein expression ($p < 0.01$) after 48 hours occurred. Moreover, TAD exposure induced and increase of total AR protein expression ($p < 0.05$) after 24 hours and there was an increased trend of ER β mRNA expression level with maximal effects after 24 hours. Furthermore, there was an increased ratio of estradiol/testosterone levels in LNCaP in the supernatants, suggesting an increase in ARO activity after 48 hours.

Conclusion: We demonstrate for the first time that TAD can significantly modulate both AR and ARO expression and activity and, since LNCaP cells do not express PDE5, our Results strongly suggest a specific direct effect of TAD on both ARO and AR. These novel data indicate a potential positive role of this molecule in the modulation of prostate cancer cells opening new potential clinical pharmacological scenario.

Policy of full disclosure: This study was funded by MIUR Grants (grant number 2015XCR88M_008) to Prof. Antonio Aversa

PO-01-013

COMPARISONS BETWEEN 4 CONTRIBUTING FACTORS TOWARDS THE OUTCOME OF SPERM RETRIEVAL SURGERIES IN MEN WITH AZOOSPERMIA



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Objective: Combined association between testicular diameter, follicle-stimulating hormone (FSH) and testosterone levels, presence of varicocele, microdeletion of azoospermia factor (AZF) genes in chromosome Y (MDY) status, and surgical sperm-retrieval outcome in men with azoospermia has not been clearly established.

Methods: This retrospective study included 30 infertile men with azoospermia. All subjects underwent surgical sperm-retrieval procedures. The outcomes of sperm retrieval among subjects MDY status. Furthermore, we

also analyzed the association between FSH level and testicular length. Statistical analyses were performed using Fisher Exact, Mann Whitney, Spearman Rho tests, and logistic regression with $p < 0.05$ considered statistically significant.

Results: The median age of subjects were 35 (27-59) years old. Varicocele was found in 89.7% of subjects. Sixty four percent of subjects underwent PESA/TESE procedure while the other 36% underwent PESA/TESE with micrologilation of varicocele. The median value of FSH level was 7.86 (1.72-69.1) mIU/mL, while the median value of serum testosterone level was 390 (102.0-760.0) ng/dL. The median length of right and left testicular diameter were 3.47 cm and 3.38 cm, respectively. The difference was not statistically significant. Successful sperm retrieval outcome was observed in 22 (56.4%) subjects. There is an association between testicular length and sperm retrieval outcome ($p < 0.001$). Furthermore, testicular length also has a strong negative correlation with FSH level ($r_s = -0.703$; $p < 0.001$). MDY examination among subjects showed that there were 8 (20.5%) subjects with MDY (partial and complete microdeletions of both AZFa and AZFb, partial microdeletion of AZFa with partial microdeletion of AZFc, and complete microdeletion of AZFb with partial microdeletion of AZFc). MDY itself is associated with the outcome of sperm retrieval outcome ($p = 0.013$). Adjustment of all variables using logistic regression showed that the presence of varicocele ($p = 0.041$) and the diameter of right testicle ($p = 0.004$) are associated with surgical sperm-retrieval outcome in men with azoospermia. **Conclusion:** This study found that varicocele and the diameter of right testicle are associated with the outcome of sperm retrieval in men with azoospermia. Further studies with larger number of subjects are needed for more objective and applicable Results.

Policy of full disclosure: None

PO-01-014

IMPACT OF UNDIAGNOSED PREDIABETES ON PHOSPHODIESTERASE TYPE 5 INHIBITORS RESPONSE IN MEN WITH ERECTILE DYSFUNCTION



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Objective: There is a lack of studies addressing response to PDE5i in men with prediabetes (PreDM). We assessed the response to PDE5i in men with normo-glycaemia, DM and PreDM seeking first medical help for erectile dysfunction (ED).

Methods: ED patients with PreDM depicted lower rates of response to PDE5i than euglycaemic men. These Results suggest that even milder forms of glucose impairment are associated with impaired efficacy of ED therapy. However, only DM emerged as an independent predictor for impaired treatment response.

Results: Overall, 196 (56.7%), 81 (23.5%) and 69 (19.7%) patients had normo-glycaemia (=controls), PreDM and DM, respectively. Diabetic and PreDM men were older (all $p < 0.001$), had higher BMI (all $p < 0.02$) and CCI scores (all $p < 0.01$) and lower total testosterone (tT) (all $p < 0.04$) than controls. Median IIEF-EF was lower both in DM (10.0 vs. 18.0; $p < 0.001$) and in PreDM (14.0 vs. 18.0; $p < 0.001$) than in controls. IIEF-EF improved in all groups after treatment (all $p < 0.001$). Controls more frequently reached significant MCID than PreDM and DM patients (65.3% vs. 22.9% vs. 11.8%). IIEF-EF scores were higher in controls than PreDM and DM men after treatment (26.0 vs. 20.0 vs. 17.5; all $p < 0.01$). Multivariable logistic regression analysis showed that age (OR 0.96, $p < 0.001$), baseline IIEF-EF score (OR 0.94, $p < 0.001$), and +DM (OR 0.37, $p = 0.02$) were independent predictors of MCID, after accounting for BMI, CCI and tT.

Conclusion: ED patients with PreDM depicted lower rates of response to PDE5i than euglycaemic men. These Results suggest that even milder forms of glucose impairment are associated with impaired efficacy of ED therapy. However, only DM emerged as an independent predictor for impaired treatment response.

Policy of full disclosure: None

PO-01-015

ONE OUT OF THREE MEN SEEKING MEDICAL HELP FOR ERECTILE DYSFUNCTION HAS BLOOD GLUCOSE LEVELS SUGGESTIVE FOR UNDIAGNOSED HYPERGLYCAEMIA: WORRISOME PICTURE FROM THE REAL-LIFE SETTING

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¹IRCCS Ospedale San Raffaele, Unit of Urology, Milan, Italy; ²San Raffaele Hospital, Milan, Italy; ³San Raffaele University, Milan, Italy; ⁴Ospedale Maggiore Policlinico, Milan, Italy

Objective: Investigate rate of and clinical characteristics of men with undiagnosed glycemic control impairment seeking medical help for erectile dysfunction (ED) as their primary complaint.

Methods: Data from 681 men were analyzed; of them, 92 (13.5%) patients with a previous diagnosis of diabetes mellitus (DM) were excluded. The final cohort included 589 (86.5%) men with ED but without a known alteration of glycemic control. Comorbidities were scored with the Charlson Comorbidity Index (CCI). Patients completed the International Index of Erectile Function (IIEF). Glucose impairment was defined as fasting blood glucose (FBG) >101 mg/dL. Prediabetes (PreDM) was defined according to the criteria of the American Diabetes Association (2015).

Results: Of 589, 171 (29.0%) patients had undiagnosed glucose impairment. Of them, 139 (23.6%) and 32 (5.4%) patients had glucose levels suggestive for PreDM and DM, respectively (both = Group 1). Patients in Group 1 were older ($p<0.001$) and had higher BMI ($p=0.002$) than controls (Group 2). Groups were comparable in terms of CCI, smoking and alcohol intake. Median (IQR) testosterone levels were lower in patients of Group 1 than Group 2 (3.8 (2.4) vs. 4.6 (2.6); $p=0.002$). IIEF-EF [11.5 (18) vs. 16 (15); $p=0.03$] and IIEF-OF [5 (5) vs. 8 (5); $p=0.012$] domain scores were lower in Group 1 than Group 2. Severe ED was more frequent in Group 1 than Group 2 (44.4% vs. 34.0%; $p<0.01$). FBG was inversely associated with IIEF-EF ($r=-0.1$; $p=0.04$) and IIEF-OF ($r=-0.14$; $p=0.003$) domains.

Conclusion: One out of three men seeking first medical help for ED have undiagnosed alteration of glycemic control. Men with impaired FBG showed worse metabolic and hormonal profiles than healthy controls. Hyperglycemia was also associated with higher rate of severe ED and lower OF scores. These Results further stress the importance of a comprehensive metabolic work-up in men presenting for ED.

Policy of full disclosure: None

PO-01-016

PREMATURE EJACULATION IS NOT ASSOCIATED WITH PREDIABETES IN MEN SEEKING MEDICAL HELP FOR SEXUAL DYSFUNCTION: FINDINGS FROM A CROSS-SECTIONAL STUDY

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Objective: Assess rates of premature ejaculation (PE) in men with normoglycemia, diabetes mellitus (DM) and prediabetes (PreDM) seeking first medical help for sexual dysfunction.

Methods: Data from 323 men were analyzed. Patients completed the International Index of Erectile Function- Erectile function (IIEF-EF) domain and the Premature Ejaculation Diagnostic Tool (PEDT). PE was defined as PEDT ≥ 11 . DM was detected through a detailed medical history. Men were defined as having PreDM according to the criteria defined by the American Diabetes Association (2015). Descriptive statistics and logistic regression models tested the association between clinical predictors and PEDT scores.

Results: Primary reasons for office evaluation were erectile dysfunction (ED), PE and ED+PE in 178 (55.1%), 37 (11.4%) and 108 (33.4%) patients, respectively. Overall, 189 (58.5%), 78 (24.1%) and 56 (17.3%) men had normo-glycemia, PreDM and DM respectively. Men with PE were older ($p=0.03$) and had lower TSH values than those without PE ($p=0.04$). Patients with DM more frequently had PE than controls (58.9% vs. 39.2%; $p<0.01$), while similar rates of PE were found between men with PreDM and controls (37.4% vs. 39.2%; $p=0.212$). Similarly, mean PEDT score was significantly higher in DM men than controls (11.8 vs. 8.5; $p<0.001$). No difference in PEDT score was found between PreDM men and controls. At univariable logistic regression analysis, DM (OR 2.23, $p=0.01$), lower IIEF-EF score (OR 0.96, $p<0.001$) and lower TSH values (OR 0.71, $p=0.021$) were associated with PE. At multivariable logistic regression analysis only lower IIEF-EF score (OR 0.96, $p=0.02$) and TSH values (OR 0.69, $p=0.02$) depicted independent association with PE, after accounting for age, BMI, Charlson Comorbidity Index and glycemic status.

Conclusion: These Results confirm that DM is associated with both ED and PE. However, no association was found between PreDM and PE rates and severity among men seeking medical help for sexual dysfunction.

Policy of full disclosure: None

PO-01-018

COMPARATIVE PHARMACOKINETIC AND BIOAVAILABILITY STUDIES OF MONOTROPEIN, KAEMPFEROL 3-O-GLUCOSIDE AND QUERCETIN 4'-O-GLUCOSIDE AFTER ORAL AND INTRAVENEOUS ADMINISTRATION OF MOTILIPERM IN RATS

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Objective: The present study was designed to validate liquid chromatography tandem mass spectrometry (LC-MS/MS) method for pharmacokinetic and bioavailability investigation of monotropein, kaempferol 3-O-glucoside and quercetin 4'-O-glucoside in MOTILIPERM following oral and intravenous administration of its extract.

Methods: MOTILIPERM was prepared as a mixture of extracts of three medicinal herbs roots from Morinda officinalis How (Rubiaceae), seeds of Cuscuta chinensis Lamark (Convolvulaceae) and outer scales of Allium cepa Linnaeus (Liliaceae). After intravenous or oral administration of MOTILIPERM at 20 or 400 mg/kg to rats respectively, the plasma concentrations of monotropein, kaempferol 3-O-glucoside and quercetin 4'-O-glucoside were simultaneously determined in rats. Simultaneous determination of monotropein, kaempferol 3-O-glucoside and quercetin 4'-O-glucoside of MOTILIPERM by liquid chromatography tandem mass spectrometry (LC-MS/MS) method was fully validated and successfully applied to pharmacokinetics and bioavailability study.

Results: Pharmacokinetic parameters of monotropein in rats were AUCinf 20020.44 \pm 3944.67 and 11915.53 \pm 1190.91 min·ng/mL; Cmax 286.99 \pm 38.37 and 56.23 \pm 9.02 ng/mL for intravenous and oral administration, respectively. Pharmacokinetic parameters of kaempferol 3-O-glucoside in rats were AUCinf 287.86 \pm 126.17 min·ng/mL and not estimated; Cmax

5.80 ± 1.87 and 1.24 ± 0.41 ng/mL for intravenous and oral administration, respectively. Pharmacokinetic parameters of quercetin 4'-O-glucoside in rats were AUCinf 511.38 ± 248.11 and 481.44 ± 65.72 min·ng/mL; Cmax 10.72 ± 2.70 and 2.83 ± 0.34 ng/mL for intravenous and oral administration, respectively. The absolute bioavailability of monotropein and quercetin 4'-O-glucoside for oral administration are evaluated and calculated as 3.0% and 4.7%, respectively. The absolute bioavailability of kaempferol 3-O-glucoside was not calculated because the elimination rate constant cannot be estimated.

Conclusion: These Results may be applied to the basic data for the further study to develop functional foods or herbal medicinal products.

Policy of full disclosure: None

PO-01-020

NEW METHOD OF HISTOLOGICAL ANALYSIS AFTER BILATERAL MULTIPLE CONVENTIONAL TESTICULAR SPERM EXTRACTION (C-TESE) IN INFERTILE PATIENTS WITH AZOOSPERMIA

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Objective: In order to be able to study the histology of a larger samples, which would be more representative of the whole testicular histopathology, in addition to the standard histological biopsy, it is possible to analyse the remnants of TESE specimens, after spermatozoa have been extracted by the embryologist. This is because during processing of the TESE sample only the supernatant with free spermatozoa is cryopreserved or utilized for ICSI while the testicular solid tissue consisting of the residual seminiferous tubules after stretching, centrifugation and extracting the spermatozoa, which in the current manuscript is defined as 'testicular pool', is usually disposed. The main objective of the current manuscript is to assess the feasibility of using the testicular pool for histological analysis in azoospermic patients undergoing conventional TESE in order to predict the chance of sperm retrieval. Methods: Between January 2017-June 2018, this single-centre prospective study included 60 azoospermic men undergoing a conventional bilateral TESE. Six samples were excised from each testicle and transferred to embryologist. One additional biopsy was randomly taken from each testis for histology. After processing, testicular pool was also sent for histology. The histology showed: Normal Spermatogenesis (NS), Hypospermatogenesis (HYPO); Maturation Arrest (MA), Sertoli-Cell-Only-Syndrome (SCOS), tubular atrophy (TA).

Results: 20/60 (33.3%) patients presented obstructive azoospermia (OA), 40/60 (66.6%) non-obstructive azoospermia (NOA). Mean male age was 41.5 years. All OA underwent a previous unsuccessful testicular fine-needle aspiration. Successful sperm retrieval (SSR) was 91.2%. Histology of testicular biopsy revealed NS in 12/60 (20%), HYPO and TA in 28/60 (46.6%), MA in 8/60 (13.3%), SCOS in 12/60 (20%). Testicular pool shown NS in 12/60 (20%), HYPO and TA in 44/60 (73.3%), MA in 4/60 (6.6%), SCOS in 0/0 (0%). Concerning the standard testicular biopsy histology, in 4/60 (6.6%) with MA and in 12/60 (20%) with SCOS, the embryologist found SSR with cryopreservation. Overall, in 44/60 (73.3%) testicular pool confirmed standard testicular biopsy histology. In 16/60 cases (26.6%), in which a discrepancy between histology of single biopsy and SSR was found, testicular pool confirmed embryological data about SR.

Conclusion: Testicular pool proved to be easily analysable, practical, manageable and more accurate in prediction of sperm retrieval, when compared to standard testicular biopsy.

Policy of full disclosure: None



PO-01-021

THE ASSOCIATION BETWEEN SEXUAL SELF-ESTEEM AND LESBIAN, GAY, AND BISEXUAL (LGB) IDENTITY

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Objective: Self-esteem is based on the verification of social/group, role, and individual identity. Previous studies imply that possessing a stigmatized identity (e.g., LGB identity) can thus be seen as a threat to the self-esteem of the LGB population. The goal of the present study was to investigate whether the endorsement of LGB self- and collective-identity is associated with a specific facet of self-esteem—sexual self-esteem (SSE).

Methods: 17 lesbians, 40 gays, and 23 bisexuals (17 of these female), aged between 14 and 74 (M = 29.7, SD = 11.8) participated in an online survey encompassing the following instruments: Lesbian, Gay, and Bisexual Identity Scale (LGBIS), the Sexual Self-Esteem Scale (SSEI-SF), and a socio-demographic questionnaire. To confirm the internal consistency of the scales, Cronbach's alpha was assessed. Correlational analyses were conducted. Results: The scales displayed good reliabilities (Cronbach's α ranging from .71 to .90). Correlation analyses indicated that several dimensions of the LGB identity were significantly correlated with various factors of SSE. For example, dimensions of LGBIS like identity dissatisfaction, difficult process, stigma sensitivity were significantly and negatively correlated ($-.23 < r < -.41$; $p < .05$) with SSE-SF's dimension of adaptiveness (i.e., congruence of one's sexual experience with personal goals), while identity centrality was positively correlated ($r = +.28$; $p < .01$).

Conclusion: The Results indicate a significant relationship between the dimensions of LGB identity and SSE, implying SSE is an important concept for research and therapy focusing on the individuals who identify themselves as LGB.

Policy of full disclosure: None

PO-01-022

THE EFFECT OF VITAMIN D REPLACEMENT IN PDE-5 INHIBITORS-RESISTANT ERECTILE DYSFUNCTION PATIENTS

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Objective: Erectile dysfunction (ED) is one of the most common sexual disorder in men. In the last few years, increased vitamin D (VD) deficiency has been associated with increased atherosclerotic cardiovascular (ASCV) disease. ASCD diseases and erectile dysfunction (ED) share common risk factors. The aim of this study is to evaluate the efficacy of vitamin D in patients who use phosphodiesterase type 5 (PDE-5) inhibitors due to ED and do not benefit.

Methods: Between September 2017 and August 2018, patients with ED complaints to the Urology Outpatient Clinic were retrospectively reviewed. Patients who used daily tadalafil 5 mg as a PDE-5 inhibitor for ED therapy and who did not benefit from treatment for a period of 1 month were included in the study. Patients' vitamin D levels were studied and 100,000 IU / week Vitamin D3 oral replacement therapy was performed for 1 month in patients with low Vitamin D levels (<20 ng / ml). During this one-month period, patients continued to use tadalafil 5 mg daily. International Erectile Function Index-Erectile Function (IIEF-EF) and International Prostate Symptom Score (IPSS) scores were compared before and after vitamin D replacement. Patients with type 2 diabetes mellitus, hypertension, neuro-genic disease and low testosterone were excluded from the study.



Results: A total of 42 patients were included in the study. The mean age of the patients was 51.10 ± 9.71 (31-70). The mean BMI of the patients was 26.82 ± 7.24 (18.26-37.87). The mean duration of complaints was 19.58 ± 27.16 (1-120). The testosterone levels of the examined patients were calculated as 3.71 ± 1.03 ng / ml. After one month of Vitamin D replacement + IIEF-EF (pre-treatment: 11.02 ± 5.50 , post-treatment: 23.00 ± 4.96 ; $p = 0.001$) and IPSS (pretreatment: 7.81 ± 5.67 , post-treatment: 3.43 ± 1.13 ; $p = 0.003$) scores were significantly improved.

Conclusion: In our study, vitamin D replacement therapy for patients with low levels of vitamin D from patients who did not benefit from PDE-5 inhibitors due to ED increased the effect of the PDE-5 inhibitor. To evaluate the vitamin D levels is particularly important to increase the PDE-5 inhibitors in patients who have not responded to treatment response.

Policy of full disclosure: None

PO-01-023

SEXUAL DESIRE IN TRANSGENDER PERSONS IN RELATION WITH GENDER AFFIRMING HORMONE TREATMENT. RESULTS FROM ENIGI, A LARGE MULTICENTER PROSPECTIVE COHORT STUDY IN TRANSGENDER PEOPLE

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Objective: Several steps in the transitioning process may affect sexual desire, including hormone therapy and gender affirming surgery. Testosterone therapy in transgender men (TM) generally leads to increased sexual desire, masturbation, sexual fantasies and arousal. Studies in transgender women (TW) are often inconclusive.

Methods: This prospective cohort study was part of the European Network for the Investigation of Gender Incongruence (ENIGI). Upon first clinical contact, psychological questionnaires were completed. Sexual desire was prospectively assessed in 766 participants (401 TW, 364 TM) by the Sexual Desire Inventory (SDI) during a three-year follow-up period, starting at the initiation of hormone treatment (HT). Sex steroids were measured at each visit. Data were analyzed cross-sectionally and prospectively.

Results: Baseline SDI scores were comparable in TW and TM ($P=0.342$). In TW, SDI scores decreased from 39.0 [$23.0 - 54.5$] (baseline) to 33.0 [$16.3 - 49.8$] (12 months) (-4.77 , $P<0.001$), returning to scores comparable to baseline after 18 months ($P=0.114$). After 36 months, SDI scores were higher than baseline scores (51.5 [$39.5 - 61.0$], $P=0.003$). In TM, total SDI scores increased from 40.0 [$17.0 - 52.0$] at baseline to

55.0 [$40.5 - 67.0$] ($+14.61$, $P<0.001$) after 12 months, remaining stable over the following year and returning to scores comparable to baseline scores (58.0 [$23.0 - 62.0$], $P=0.250$) after 36 months. People with a partner ($P<0.001$) and TW with lower levels of self-reported gender dysphoria (Utrecht Gender Dysphoria Scale) ($\rho=0.336$, $P=0.002$) reported higher SDI scores. Prospective SDI scores were not influenced by prospective changes in serum levels of sex steroids in TM and TW. Lower baseline levels of gender dysphoria (Utrecht Gender Dysphoria Scale) correlated to a higher prospective increase in SDI scores in TM after 12 months of HT ($\rho=-0.355$, $P<0.001$).

Conclusion: Sexual desire scores initially increased in TM and decreased in TW, although three-year Results show a small increase in TW and status quo in TM vary largely, with so far unexplained differences over the three years of hormone therapy. We observed no correlation between sexual desire and absolute serum testosterone levels/serum levels of sex steroids. Other factors, including relationship status and gender dysphoria may influence sexual desire in transgender people.

Policy of full disclosure: None

PO-01-024

SEXUAL FANTASIES - A TIME TO THINK AGAIN AND BROADEN OUR HORIZONS

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Objective: For a better understanding of the sexual desires that awaken the attitudes and performances of both genders, it is essential to get a correct picture of the sexual fantasies that can appear at any moment of the day or even during sexual activities.

Methods: We investigated the sexual fantasies of a Portuguese population using Wilson's Sexual Fantasies Questionnaire (modified in 2010), validated for the Portuguese population. Our convenience sample was determined by the "snowball" method, among users of the Facebook social network. The responses were sent anonymously to a Google Drive folder (Google Forms). In addition to the Wilson's Questionnaire, we added at the end a space for extended written responses open questions about fantasies not investigated/described throughout the questionnaire. A content analysis of the answers obtained was carried out.

Results: There were 61 responses on additional fantasies (out of a total of 280 responses to the questionnaire). Some fantasies might be considered paraphilic, but the definitions of normality; or normophilia; are always to be dated and should be reported to the living educational/moral environment. A large number of fantasies were found in the realm of abuse/domination games, which, although directly questioned, did not appear so markedly at first. They seem to be thought in a soft way, not being predominant in the

Table 1. Change in outcome measures from baseline to 1mFU, 3mFu and 6mFU

		Group A	Group B	A vs B p-value	Group C	Group D	C vs D p-value	AB vs CD p-value
IIEF-EF	1mFU	4.2 ± 1.6	3.5 ± 3.0	0.35	4.6 ± 2.7	4.6 ± 2.9	0.99	0.19
	3mFU	4.7 ± 2.2	4.4 ± 1.8	0.53	5.3 ± 2.9	5.6 ± 2.8	0.76	0.09
	6mFU	5.3 ± 2.8	4.5 ± 2.8	0.36	5.6 ± 2.5	5.9 ± 2.5	0.69	0.14
SEP3 (%Yes)	1mFU	26.0 ± 20.2	21.1 ± 22.5	0.44	28.1 ± 24.2	35.9 ± 22.6	0.27	0.09
	3mFU	26.3 ± 26.8	30.3 ± 21.1	0.58	31.4 ± 25.9	39.0 ± 30.2	0.37	0.22
	6mFU	32.4 ± 20.8	31.4 ± 29.1	0.90	34.9 ± 27.3	47.1 ± 29.1	0.16	0.12
PSV(cm/s)	3mFU	4.35 ± 2.23	5.04 ± 2.33	0.32	5.82 ± 2.44	4.79 ± 2.22	0.15	0.20

Results are described as mean \pm standard deviation.

p-values describe the comparison of combined results of Groups A and B versus combined results of Groups C and D, obtained by 2-tailed t-test of independent samples.

course of all sexual activities. Other fantasies involved some degree of risk, in a will to escape routine. Ano-rectal exploration emerged as equally important in fantasies of both genders and different sexual attraction behaviours. There was still a performer group of fantasies, exploring unusual roles and personas in their everyday lives.

Conclusion: It would be important to expand the questionnaires on sexual fantasies, taking into account the globalization of the XXI century, considering the diverse socio-political-religious and moral aspects of the different civilizational areas.

Policy of full disclosure: None

PO-01-025

46, XY CLOACA ESTROPHY: SEX ASSIGNMENT AND REASSIGNMENT

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Objective: The cloacal estrophy represents the most serious degree of malformations of the estrophy-epispadias (EEC) complex. In the past it was frequent to assign a female sex to newborn males affected by this pathology. We present the case of a patient with cloacal estrophy 46, XY grew up as a female who discovered own real condition at the age of 17, analyzing, in particular, the psychodiagnostic and medical path taken with the subject and family.

Methods: The informative and narrative methodology of life history was used for the communication of the diagnosis. This methodology allows to give a new frame and meaning to the story of a person and creates a process of elaboration of emotions and thoughts. The meetings with the patient took place every two weeks, lasting 60 minutes for a period of 24 months, and monthly with the parents. The tests administered were: MMPI-2; BDI-II; SESAME; BUT A-B; MAST; BAI; UGDS; VAGS; VASOS; VAGDS; SCL-90-R; GIGDI. The tests were administered at 3; 6; 12 and 24 months until the beginning of hormone therapy.

Results: These tests showed an absence of psychopathologies, a secondary gender dysphoria, the presence of a suicide inclination, and allowed a correct psychosexual evaluation.

Conclusion: After the diagnosis's communication, significant changes were immediately detected on the side of internalising and on the externalizing aspects. He increases concentration, visual-spatial performance and sexual desire. He also increases the lucidity in the executive functions and in autonomy with the consequent strengthening of adulthood's process.

Policy of full disclosure: None

PO-01-028

TWO CASES OF PENILE ARTERIAL LEAK DETECTED BY COLOR DOPPLER ULTRASOUND

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Objective: Among the anatomical variations in penile vascularization, dorso-cavernosal anastomosis is relatively frequent (18.5-80%). We present two cases of patients with caverno-dorsal anastomosis detected by penile ultrasound. We have called this entity "Penile arterial leak".

Methods: Case 1 is an 80-year-old male with long-term erectile dysfunction without response to PDE5-Is. Case 2 is a 48-year-old patient with penile curvature without erectile dysfunction. Both color and power Doppler were performed (General Electrics® LOGIQe or LOGICS8, utilizing



multifrequency 6-12 MHz linear probe) following genital stimulation after administration of intracavernosal PGE1 of 20 and 10 mcg, respectively.

Results: In Case 1, a right caverno-dorsal anastomosis was observed in the central third of the penis. The peak systolic velocity (PSV) in the right cavernous prior to anastomosis was 26 cm/s, and the end diastolic velocity (EDV) was 5.4 cm/s. The PSV at anastomosis, with inverted flow (caverno-dorsal) was 10 cm/s and EDV was 0 cm/s. Case 2 presented a predominantly fibrous Peyronie's disease in the form of a dorsal plaque, affecting the proximal and middle third of the penis. A right caverno-dorsal anastomosis was found in the proximal third of the penis. Ten minutes after administration of PGE1, the PSV in the native right cavernous was 69 cm/s, and the EDV was 13 cm/s. Eighteen minutes after administration, the cavernosal-dorsal (with inverted flow) anastomosis PSV was 20 cm/s and EDV was 4 cm/s; while the native right cavernous PSV has decreased to 54 cm/s and EDV was 14 cm/s.

Conclusion: In addition to the relatively frequent dorso-cavernosal, there are also caverno-dorsal anastomosis, which have an inverted flow direction. Although penile arterial leak could cause erectile dysfunction, the clinical relevance of this finding must be specifically studied before such a conclusion can be drawn.

Policy of full disclosure: None

PO-01-029

TREATMENT OF PEOPLE WITH UNUSUAL SEXUAL INTERESTS

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Objective: Paraphilic thoughts and behaviors are quite widespread in the population. Approximately half of the general population has paraphilic thoughts or interests, but not everyone needs psychotherapeutic help. Studies about paraphilic disorders mostly contain samples with sex offenders. The care-givers need guides on how to place and how to handle expressed atypical sexual interests.

Methods: With help from case studies the difference between a paraphilic disorder and an unusual sexual interest will be shown and criteria for treatment indications will be developed. Standardized risk assessment and actual treatment approaches will be presented. The focus lies on psychotherapeutic treatment.

Results: Psychotherapy is indicated and can be helpful when a patient's paraphilic interests are responsible for mental distress or when they involve another person's psychological distress, injury, or death. For a reasonable treatment (psychotherapy, medication), a standardized risk assessment and knowledge about different forms of psychotherapy are necessary.

Conclusion: For treatment of paraphilic interests or disorder which may endanger the patient or others special knowledge about risk assessment is needed. For patients suffering from paraphilic thoughts and/or behaviors without the risk to harm other people different kinds of treatment (p.e. affirmative psychotherapy, couples therapy) can be helpful.

Policy of full disclosure: None

PO-01-031

"DISTAL CIRCUMCISION": A NEW TECHNIQUE FOR PREMATURE EJACULATION IN MEN WITH AN EXCESSIVE PREPUCE

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Objective: 1) to investigate the prevalence of the excessive prepuce in patients affected by lifelong PE; 2) to evaluate the effectiveness of a special type of circumcision named "distal circumcision" on PE.

Methods: It was considered as an excessive prepuce every case in which, at the status of flaccid penis, the foreskin exceeded the external urethral meatus



for at least 1 cm. The diagnosis of PE was based on the PEDT questionnaire score and on the intravaginal ejaculatory latency time (IELT). We proposed to all patients diagnosed with a lifelong PE and presenting an excessive prepuce to undergo a distal circumcision as treatment for this condition. PEDT and IELT were evaluated at baseline and 6 months after circumcision. It was performed a special type of circumcision in which the distal incision was executed very close to the corona glandis.

Results: It was diagnosed a lifelong PE in 352 patients of whom 208 (59,1%) presented an excessive prepuce. We proposed them to undergo a circumcision as a potential definitive treatment for their problem: 27 (13%) accepted. After six months since the circumcision surgery we found an increase in the mean IELT from 40,4 seconds baseline ($\pm 16,5$ SD) to 254 seconds ($\pm 66,8$ SD) ($p < 0,0001$) while the mean PEDT score lowered from 17 (± 2 SD) to 6,6 ($\pm 1,9$ SD) ($p < 0,0001$). Overall the 96,3% of our survey reported a IELT increase.

Conclusion: The excessive prepuce is a very common condition in patients affected by PE. Although accepted by only 13% of our survey, distal circumcision was showed to be a very effective surgical treatment for definitive therapy of PE. We suggest to detect the potential presence of an excessive prepuce in patients complaining of lifelong PE and to propose them to undergo a distal circumcision.

Policy of full disclosure: None

PO-01-033

A PROSPECTIVE STUDY IN 135 PATIENTS TO EVALUATE THE INFLUENCE OF TRANSRECTAL AND TRANSPERINEAL PROSTATE BIOPSIES IN ERECTILE FUNCTION



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Objective: The aim of this study is to evaluate prospectively the effect of TRUS and TPM-biopsies on erectile function, and to establish a comparison between them in this respect.

Methods: All men who underwent transrectal or transperineal prostate biopsy completed an International Index of Erectile Function (IIEF-5) questionnaire before the procedure and on the 3rd and 6th month after. Transrectal and transperineal prostatic biopsies are performed following the standard procedure on both techniques. Statistical analyses used were a general descriptive analysis (continuous variables using a T test, and categorical data using chi-square analysis), a paired T test to compare each patient's baseline score to their own follow up scores and a Pearson correlation coefficient to compare the number of cylinders and the difference between IIEF-5 prebiopsy and after 3 and 6 months.

Results: The questionnaire was completed by 198 patients. After the procedure, 135 (90 transrectal and 45 transperineal) subjects were re-evaluated at 3 and 6 months. The average age was 63.5. Prior to biopsy, 107 (82%) has ED: 4 (3%) severe, 49 (36%) moderate, 54 (40%) mild, and 28 patients (21%) had no ED, with a mean of IIEF 5 punctuation of 17,7. After 3 months the percentages were 3, 27.4, 38 and 29% respectively, and after 6 months 6, 28, 34 and 30% (IIEF means 17,95 and 17,77 respectively). We couldn't find differences between the pre-biopsy IIEF-5 score and the post-biopsy 3 and 6-month IIEF-5 scores in the entire sample or even analysing transrectal or transperineal separately. No statistical differences were found either when we compared the number of cylinders with the difference between IIEF-5 prebiopsy and after 3 and 6 months.

Conclusion: Prostate biopsies (either transrectal or transperineal approach) don't have an adverse influence on erectile function.

Policy of full disclosure: None

PO-01-035

THE EVOLUTION OF SILDENAFIL CITRATE SUPPLY IN THE UNITED KINGDOM: FROM PRESCRIPTION TO THE PHARMACY



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Objective: Erectile dysfunction (ED) affects millions of men worldwide and can be a hallmark of other diseases such as cardiovascular disease and diabetes. With the introduction of phosphodiesterase type 5 inhibitors (PDE5Is) such as Viagra® (sildenafil citrate), a convenient and efficacious treatment became available to men with ED. Having been available in the United Kingdom for approximately 20 years, the sildenafil supply model has evolved from prescription-only to over-the-counter availability at pharmacies. This review presents this evolution.

Methods: This historical overview was developed from publicly available documentation of sildenafil citrate approval and evolving recommendations in the United Kingdom.

Results: Sildenafil was initially approved in the European Union in September 1998 as a prescription-only medication and was subsequently made available as 25-mg, 50-mg, or 100-mg tablets (Figure). In response to increased demand, combined with a need to decrease utilisation of counterfeited PDE5Is, sildenafil was reclassified in the United Kingdom in November 2017 to a pharmacy medicine available as 50-mg tablets. The tablets became available for over-the-counter purchase in March 2018. All sildenafil strengths are still available via prescription. The long history of sildenafil use, coupled with pharmacists' recognized competence, supported a robust safety framework in which over-the-counter sildenafil could be made more easily available. Moreover, pharmacists have been provided with comprehensive training to support men with ED. For example, a detailed checklist developed in consultation with UK pharmacists is available to guide pharmacist-patient interactions to support the new supply model by ensuring sildenafil is provided only to appropriate individuals.

Conclusion: As sildenafil citrate has moved from a prescription-only drug to treat ED in the United Kingdom to an over-the-counter medication available upon consultation with a pharmacist, men who otherwise would not seek treatment now have a more convenient mechanism to manage their sexual and general health proactively. Funded by Pfizer.

Policy of full disclosure: T. Maguire acts as a consultant on community pharmacy-related matters to Reckitt Benckiser, Pfizer, and GlaxoSmithKline. M. Kirby has received funding for research, conference attendance, lecturing, and advice from Astellas, Pfizer, Takeda, Bayer, Merck Sharp & Dohme, Boehringer Ingelheim, Eli Lilly, GlaxoSmithKline, AstraZeneca, and Menarini; is an editor for the Primary Care Cardiovascular Journal; and has served on several NHS advisory boards including the Prostate Cancer Risk Management Programme and the Prostate Cancer Advisory Group. G. Hackett is an occasional speaker for Bayer and Besins and advisory board member for Pfizer. D. Edwards has received funding from multiple pharmaceutical companies including Pfizer for lecturing, research, advisory boards, and conference attendance over many years. P. Goggin and K. Sourial are employees of Pfizer Ltd, Sandwich, UK, and may hold stock or stock options.

PO-01-036

RESULTS OF SALVAGE MICROSURGERY FOR SPERM EXTRACTION IN AZOOSPERMIA COUPLES



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Objective: Azoospermia couples that have undergone unsuccessful sperm extraction by non-microsurgical procedures are left with a very poor chance of success. Salvage by micro-surgical procedures for sperm extraction have the potential to make the difference between parenting vs life without children. Our Aim was to evaluate the Results of salvage microsurgery performed in azoospermia males i.e., repeat surgery in men who had undergone previous sperm extraction operations and no sperm cells were found. **Methods:** A retrospective study of Azoospermia couples who underwent microsurgery (Micro-TESE for sperm extraction between 2013 and 2018 in a public setting. Data on the primary type of surgery and whether any sperm cells were found, as well as data on the micro-surgical operation performed at our institution was collected and analysed.

Results: During the period of the study, 90 micro-surgical surgeries were performed (of which 18 with positive virology of one partner) in 87 men. 21/90 (23.3%) rescue operations. The primary failed procedures were TESA (n=7) (33.3%), TESE (n=11) (52.4%) and microTESE (n=3) (14.3%) for various reasons. The salvage microTESE procedures were successful in 5/21 (23.8%). Statistically, the first type of surgery performed did not predict positive sperm finding in the in the salvage procedure ($p < 0.05$ Pearson test).

Conclusion: Sperm cells can be found in micro-surgical procedures, even when performed as salvage. Under certain circumstances, even if the primary operation was also micro-surgical. The first type of analysis is not the predictor of sperm finding - it is necessary to search predictors in large series. It is difficult to put an end to biological parenting in azoospermia couples that have undergone one unsuccessful sperm extraction procedure. Each case should be considered on its merits, examining the entire clinical presentation and discussing with the couple the possibility of repeat surgery.

Policy of full disclosure: None

PO-01-037

HARD FLACCID: IS IT A NEW SYNDROME?

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Objective: Hard flaccid (HF) is a cluster of symptoms that significantly affects a man's sexual and social life. Currently, this syndrome has been discussed in numerous patient forums and there is no evidence-based definition yet. We hereby report two cases that suffer from HF and compare their complaints with those reported in patient forums

Methods: We searched forums, chat-groups, private support groups and social-media (facebook) to collect information about symptoms of HF patients. We have identified several complaints regarding penis, erections, libido, urination and ejaculation. Moreover, we have included findings of the medical tests that are described in HF forums.

Results: Majority of the HF patients is in their 20s-30s. They commonly report onset of erection "changes" after a trauma-like event during sexual intercourse. Some HF patients report decreased frequency of morning erections and loss in erectile rigidity. The patients state that their penises are always semi-rigid at the flaccid state and they describe the penile sensation as semi-numb. They have difficulty in achieving and maintaining their erections and most of them require additional tactile or visual stimuli to become fully erect. Moreover, these erectile difficulties seem to change with the alterations in body position as the majority of the HF patients report that their erections are the worst when they are standing. HF can also be accompanied by urination and ejaculation symptoms. Patients are also suffering from psychological issues ranging from mild anxiety to severe depression. Imaging and laboratory tests do not reveal any abnormalities.

Our cases were 34 and 26 years of age and they both report onset of their symptoms after a trauma during sexual intercourse. All these symptoms were similar (Table 1) and the imaging/laboratory tests were inconclusive. The patients were provided daily / on-demand phosphodiesterase-5 inhibitors, which was not effective.

Table 1. HF Symptoms

HF Reports from Internet	Case 1	Case 2
Penis		
Feels constantly hard but in flaccid state	✓	✓
During masturbation slight ache in the base of the penis	✓	✓
Noticeable superficial veins	✓	✓
Bubble around the glans (very rare)	X	✓
Scar tissue (very rare)	✓	X
Erections		
No morning erections	✓	✓
Often feel hollow or empty but also rigid than usual	✓	✓
Glans is often soft, sometimes cold or numb	✓	✓
Difficult to maintain erections	✓	✓
Best in lying on back Position, worst in stood upright	✓	X*
Libido		
Generally low	✓	✓
Urination		
Painful urination	X	X
Weak stream (rare)	X	X
Ejaculation		
Painful ejaculation (or slightly painful)	✓	✓
Tests		
Normal physical examinations, sometimes mild curvatures	✓	✓
Generally normal hormone levels and other blood tests*	✓	✓
Normal penile doppler ultrasonography (no peyronie, no fibrosis)	✓	✓
Normal MRI and other imaging modalities	✓	✓

*This patient experienced the opposite

**sometimes Hormone levels have been reported to be lower than normal limits due to extreme stress

Conclusion: Although HF has not been recognized by the sexual medicine community, many patients seem to suffer from this disorder. Therefore, the professional organizations must start recognizing this clinical phenomenon and actual pathophysiological mechanisms of HF must be elucidated.

Policy of full disclosure: None.

PO-01-038

FASTING BLOOD SUGAR AT THE TIME OF PENILE PROSTHESIS SURGERY IS NOT CORRELATED WITH THE OUTCOME OF SURGERY

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Objective: The most catastrophic complication of penile prosthesis surgery (PPS) is infection which is more common in diabetics. It was reported that glycosylated hemoglobin (HbA1c), as a marker for diabetic control, was correlated with infection rate. **Objectives:** To check if the fasting blood sugar (FBS) at the time of PPS is correlated with the outcome.

Methods: Based on a prospective study, we retrospectively analyzed the data of penile implant procedures in one full year (2015) in one facility. We excluded non-diabetics, revision surgery and procedures done by low volume surgeons. Preoperative, intraoperative and postoperative protocols were identical for all patients. We recorded all minor (oedema, echymosis, pain) and major (infection, erosion, mechanical failure) complications as early as 4 weeks and followed up to 3 years. A Likert scale questionnaire was completed by the patients at 1 year follow scored from 1-5 where 5 was very satisfied. STATA Release 13 was used for statistical analysis. T-test, Mann-Whitney U test and Pearson correlation were used.

Table 1. Patient Characteristics

Mean age	57.7
Mean BMI	29.8
Mean HbA1c	7.9
Expected FBS based on HbA1c	181
Mean Day of Surgery FBS	154
Peyronie's	35%
Current smoker	21%
Ex-smoker	7.6%
HTN	38%
Ischemic Heart Disease	10.5%
Malleable prosthesis	39%
Inflatable	61%

Results: 218 patients had complete data and completed the study at follow up. The patient characteristics are summarized in Table 1. Complications occurred in 6.25% of patients: 3.8% had infection and explantation, 0.9% had a superficial infection with successful conservative management, 0.9% had an erosion (one patient with associated infection) and 0.9% had mechanical failure (one patient with associated infection). The difference in HbA1c and FBS in patient with unremarkable postoperative course (HbA1c 7.9; FBS 152) or those with infective complications (HbA1c 8.6; FBS 183) did not reach statistical significance ($p=0.06$ and $p=0.07$, respectively). The correlation between day of surgery FBS and HbA1c was weak ($r=0.281$; $r^2=0.0795$). Day of surgery FBS was within a 20 mg/dl range with what was expected based on HbA1c measurement in 62 patients (30%). The disparity between day of surgery FBS and expected FBS based on HbA1c was greater than 20 mg/dl in 146 (70%) patients.

Conclusion: Day of surgery FBS is only weakly correlated with HbA1c and did not predict the outcome of PPS.

Policy of full disclosure: None

PO-01-040

INFLUENCE OF ANTICANCER AGENTS ON ERECTILE FUNCTION: A STUDY OF ERECTILE RESPONSES TO ANTICANCER AGENTS IN RATS AFTER ANALYSIS OF FDA ADVERSE EVENT REPORTING SYSTEM

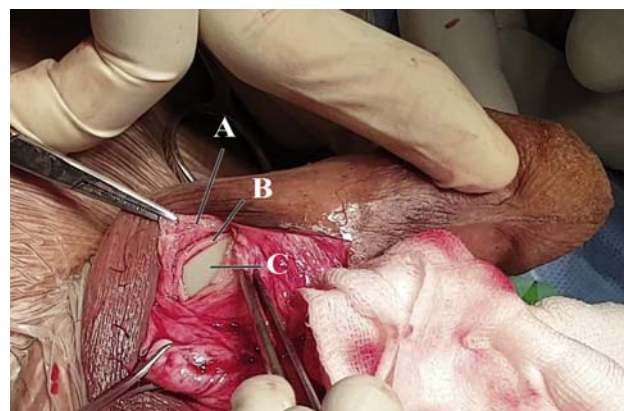
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Objective: There are many chemotherapeutic agents that are administered to cancer patients worldwide. It is therefore necessary to know which types of anticancer agents affect erectile function in cancer survivors. We investigated the erectile function in rats after administration of anticancer agents, which were selected after data mining using the US Food and Drug Administration (FDA) Adverse Event Reporting System (AERS) database analysis.

Methods: The statistical signal strength of the association between an anticancer drug and erectile dysfunction (ED) was calculated using the reporting odds ratio (ROR). A signal of the drug-event combination was detected when the lower limit of the 95% confidence interval (CI) of ROR exceeded 1.00. Rats were administered the anticancer agents that were detected as signals in FDA AERS analysis. Erectile function was assessed using intracavernosal pressure (ICP) and mean arterial pressure (MAP) measurements after electrical stimulation of the cavernous nerve. Statistical significance was determined by Welch's t-testing.



web 4C/FPO

Results: Melphalan (L-PAM; ROR = 4.72, 95% CI = 2.78–8.00), vincristine (VCR; ROR = 2.47, 95% CI = 1.54–3.97), docetaxel (DTX; ROR = 2.25, 95% CI = 1.28–3.95), methotrexate (MTX; ROR = 1.96, 95% CI = 1.39–2.75), and doxorubicin (DOX; ROR = 1.82, 95% CI = 1.07–3.19) tended to increase the risk of ED. L-PAM and MTX decreased the ICP/MAP ratio at 1 week after administration. VCR and DOX decreased the erectile function at 4 weeks after administration. DTX tended to decrease the erectile function at all time points. The drugs that showed significant effects in this study have different mechanisms of action; therefore, a further study is needed.

Conclusion: Some anticancer agents should be considered risk factors for ED, and it may be necessary to carefully observe the erectile function after treatment.

Policy of full disclosure: JSPS KAKENHI Grant Number JP18K16703

PO-01-042

EFFICACY AND SAFETY OF HOLMIUM LASER ENUCLEATION OF PROSTATE (HOLEP) IN PATIENTS WITH UNDERLYING NEUROLOGIC DISEASE

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Objective: Neurologic disease can cause the neurogenic bladder which can compromise the treatment outcome of HoLEP in patients with benign prostatic hyperplasia (BPH). Moreover, anticoagulants are frequently



administered in those patients. We compared the efficacy and safety outcomes of HoLEP in BPH patients with or without neurologic disease.

Methods: We retrospectively reviewed the medical records, and preoperative urodynamic study (UDS) Results of BPH patients who underwent HoLEP between June 2009 and December 2015.

Results: Of the 317 patients who received the HoLEP, 26 (8.2%) patients had underlying neurologic diseases. Neurologic disease group was more frequently administered anticoagulants than non-neurologic group (69.2 vs. 18.6%; $p < 0.001$). However, neurologic disease group demonstrated similar patient characteristics and pre-operative urologic findings with non-neurologic disease group as shown in the Table. Two groups demonstrated similar operation time (non-neurologic disease group vs. neurologic disease group; 116.2 vs. 107.8 min, $p=0.291$), transfusion rate (0.3 vs. 0.0%, $p=0.765$), hospital stay (6.1 vs. 5.6 days, $p=0.245$), catheter duration (3.3 vs. 3.5 days, $p=0.593$), re-catheterization rate (5.2 vs. 0.0%, $p=0.236$). At median follow-up of 6 months, two groups demonstrated similar outcome parameters such as Qmax (19.6 vs. 16.6 mL/sec, $p=0.088$), PVR (27.9 vs. 35.2 mL, $p=0.467$), IPSS-emptying (3.1 vs. 3.6, $p=0.645$), IPSS-storage (4.3 vs. 3.3, $p=0.219$), and IPSS-QoL (1.6 vs. 2.0, $p=0.470$). Rates of complications such as incontinence (6.7 vs. 9.1%, $p=0.671$), urinary tract infection (0.8 vs. 0.0%, $p=0.667$), urethral stricture (1.7 vs. 4.5%, $p=0.347$) were not also different between two groups.

Conclusion: Efficacy and safety outcomes of HoLEP in patients with underlying neurologic diseases did not compromise compared to those of patient without neurologic diseases. HoLEP can be a good treatment option for BPH patients with underlying neurologic disease.

Policy of full disclosure: None

PO-01-044

ERECTILE DYSFUNCTION IN ONCOSEXOLOGY: MULTIPLE MYELOMA, CHRONIC LYMPHOCYTIC LEUKEMIA AND CHRONIC MIELOPROLIFERATIVE NEOPLASMS

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Objective: Erectile dysfunction (ED) is a sexual disfunction in men, defined as a disability to get an erection enough hard for penetration and to sustain that erection until the the end of intercourse, It is present in most of the cases in last 6 months and make the individual stress and unsatisfaction. Erectile disfunction can be primary (from the beginig of sexual life) or secondary (become later after normal sexual activity). Aims: The aim of the study is to find prevalence and severity of erectile disfunction in male patients with hematological malignant diseases: chronic lymphocytic leukemia, disseminated multiple myeloma and myeloproliferative neoplasms at diagnosis and after 1 year of treatment.

Methods: Patients were classified into three groups based on diagnosis, the WHO performance status, hemoglobin level, renal function, present or absent another vascular disease (cerebral stroke, peripheral occlusive disease, coronary disease and diabetes mellitus). **Methods:** All the patients answered at diagnosis questionnaire 5 item version of the International index of erectile disfunction IIEF- 5 with specificity 0,88 and sensitivity 0,97. After one year of therapy, survivors answered the same 5 questions, each of them has 0 - 5 point and max 25 points. The score depend on severity of erectile disfunction and classified like severe ED 1- 7points, moderate 8- 11, mild to moderate 12 -16, mild 17 - 21, normal erectile function 22 - 25 points. The study include 60 male patients : 20 with chronic lymphatic leukemia, 20 with multiple myeloma and 20 with myeloproliferative neoplasms.

Results: At the diagnosis in group with CLL the average age was 75 years old, 55% of patients had severe ED, moderate 35% and 10 % had mild ED. After one year of treatment the Results were - 3 patients died, 70% had severe ED and 30 % patients had moderate ED. In patients with multiple

myeloma at diagnosis the average age of men was 55 years old, the results were : severe ED 30%; mild ED 45 %, mild 20%, no ED 5 %. After one year patients had: severe ED 50% , moderate 40 %, mild 10 %.Group with myeloproliferative neoplasms included patients with chronic myeloid leukemia and policitemia rubra vera, average age 65 y, the prevalence at diagnosis: severe ED 70 %, moderate 20 %, mild 10 %.After one year 5 patients died, the others had : severe ED 50 %, moderate 20 %, mild 30 %

Conclusion: In our patients with hematological malignancies at diagnosis only one patient had no erectile dysfunction. After therapy for one year the number of patients with ED raised, only in group with myeloproliferative diseases due to chemotherapeutic agens an supportive care declines severe ED from 70 to 50 %,in this group 5 patients died in that group becomes smaller for 25 %. In the group with MM 70 % patients after chemotherapy and autologous stem cell transplantation were in complete remission of the disease, but still after one year the severe ED was found in 70 % of them. The possible reasons for erectile dysfunction in hematological malignancy are: chemoimmunotherapy, anemia, renal disease, fatigue, psychological stress, depression, isolation and absence of or fear of partner after the confirmation of malignant disease.

Policy of full disclosure: None

PO-01-045

THE EFFECT OF WORKSHOPS COLLABORATED BY SEXUAL HEALTH AND THE CHURCH ON THE SEXUAL HEALTH AND WELL-BEING OF CHRISTIAN MEN HAVING SEX WITH MEN

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Objective: This study is the analysis of seven questionnaires to measure sexual health and well-being delivered to eleven Christian men having sex with men (MSM) attended a series of workshops collaborated by sexual health and the Church. The main aim of this study was to understand the effect of attending workshops collaborated by sexual health professional and a reverend on the health and well-being of Christian MSM.

Methods: Seven questionnaires were completed by eleven participants before and after a series of workshops delivered by a sexual health professional and a reverend, at a Church of England in central London. The questionnaires were: Patient Health Questionnaire (PHQ-9), General Anxiety Disorder (GAD-7), Spiritual Index of Well-being (SIWB), The Short Warwick- Edinburgh Mental Well-being Scale (SWEMWBS), The International Index of Erectile Function Questionnaire (IIEF-5), Self-Compassion Scale- Short Form (SCF-SF) and Quality of Life Enjoyment and Satisfaction Questionnaire - Short Form (Q-LES-Q-SF).

Results: The most significant improvement was observed in the quality of life enjoyment and satisfaction, in the mental well-being scale and the erectile function scale. Around half of the participants reported feeling more anxious and depressed after attending the workshops. For three participants, IIEF-5 scale was not applicable, as they could not identify with penetration as part of their sexual activity.

Conclusion: The slight increase in depression and anxiety scores might be due to the potentially first opportunity to discuss topics of direct conflict for this group of men. There is a need to develop an erectile function scale to meet the needs of sexual minorities. In the future, it would be beneficial to repeat this study with a larger sample to be able to make meaningful interpretations of the Results. In addition, a qualitative study would offer a deeper understanding on the experience of Christian MSM attending the series of workshops.

Policy of full disclosure: None



PO-01-048

SEXUAL, PSYCHOLOGICAL, CLINICAL AND BIOCHEMICAL CHARACTERISTICS OF MEN WITH PRIMARY AND SECONDARY INFERTILITY

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Objective: To evaluate differences in clinical, biochemical, sexual and psychological parameters of men with primary and secondary infertility, previously poorly studied.

Methods: 464 consecutive men with couple infertility (37.6±6.5 years) and 115 fertile men (36.6±5.3 years, control group) were studied. All men were investigated with IIEF-15, Premature Ejaculation Diagnostic Tool (PEDT), Middlesex Hospital Questionnaire (MHQ) for psychological traits, clinical, biochemical and penile color-Doppler ultrasound (PCDU).

Results: Men with primary (n=400, group #1) and secondary (n=64, group #2) infertility showed a significantly higher age, female partner's age and waistline compared to fertile men (n=115, group #3) (all p<0.05). Group #3 showed higher testis volume respect to #1 but not to #2, lower FSH respect to #1 and #2, higher LH respect to #1 but not #2, higher total testosterone (TT) respect to #2 but not #1. No differences in glyco-metabolic parameters were observed among groups. Group #2 showed lower PCDU velocity respect to #1 and #3. Comparing #1 and #2, #1 showed only lower testis volume, higher TT, similar LH and FSH. Groups #1 and #2 did not differ for psychological parameters, but showed a higher MHQ total, anxiety, somatization and depression-subdomain scores respect to #3. Groups #1 and #2 showed a higher ED prevalence (IIEF-15-EFD<26) compared to #3, even adjusting for age, waist, TT, MHQ. MHQ total score was associated with ED in groups #1 and #2 (p<0.05), resulting as a moderator. Comparing groups #1 and #2, #2 showed a higher ED prevalence compared to #1, however not confirmed adjusting for confounders. In addition, #1 had lower sexual desire-subdomain score compared to #3. Finally, MHQ was associated with infertility duration only in group #1 (p<0.05).

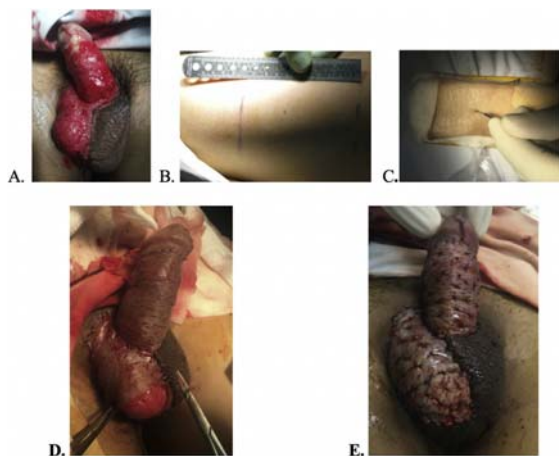


Figure. (A) Skin burns of the penis and scrotum from chemicals, (B) Measure the size of skin grafts, (C) Create a mesh skin graft, (D) Skin graft of penis and scrotum, (E) Results after 1 week.

Conclusion: Men with primary and secondary infertility have higher ED prevalence compared with fertile men in relation to psychopathologic traits. Secondary infertility show higher ED frequency respect to primary, not related to "secondary infertility per se", but to confounders.

Policy of full disclosure: None

PO-01-049

TESTOSTERONE COUNTERACTS METABOLIC SYNDROME-RELATED CHANGES IN SKELETAL MUSCLE FIBER METABOLISM AND IMPROVES EXERCISE PERFORMANCE IN THE RABBIT

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Objective: Lifestyle modifications, including physical exercise (PhyEx) are well-known treatments for metabolic syndrome (MetS), a cluster of metabolic and cardiovascular risk factors often associated to hypogonadism. Given the trophic role of testosterone (T) on skeletal muscle (SkM) mass, this study was aimed at evaluating the effects of T treatment on SkM metabolism and exercise performance in male rabbits with high fat diet (HFD)-induced MetS.

Methods: HFD rabbits, treated or not with T (HFD+T; 30 mg/kg/week) for 12 weeks were compared to regular diet animals (RD). A subset of each group were exercise-trained on a treadmill for 12 weeks. SkM samples were collected for subsequent analyses.

Results: HFD determined an increased gene expression of type-II (fast, glycolytic) and a significant decrease of type-I (slow, oxidative) muscle fiber markers, as compared to RD group. T reverted these effects, also inducing the expression of mitochondrial respiration chain enzymes and normalizing HFD-induced mitochondrial cristae reduction. Fiber typing by PAS-staining in SkM cross-sections confirmed a shift from type-I to type-II fibers in HFD, which was normalized by T. Moreover, T significantly increased the expression of both myogenic and muscle metabolism (insulin-dependent signaling, lipid turnover) markers. Preliminary Results in rabbit SkM satellite cells confirmed the positive effect of T on myogenesis. At the end of the PhyEx protocol, when compared to RD, HFD rabbits showed a significant reduction of both running distance and running time, while T counteracted this effect, also decreasing the lactate production. Muscle histology evidenced a further reduction of type-I fibers in HFD compared to RD and the positive effect of T in maintaining oxidative metabolism, as also demonstrated by mitochondrial ultrastructure analysis.

Conclusion: Our Results indicate that MetS determines a reduced proportion of fatigue-resistant type I fibers in response to PhysEx, while T promotes slow oxidative muscle metabolism thus improving exercise performance.

Policy of full disclosure: None

PO-01-051

INVESTIGATING KNOWLEDGE AND SEARCHING BEHAVIOURS FOR HEALTH ESTABLISHMENTS OF MALE INFERTILITY

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Objective: Male infertility has been increasing in recent years. To detect and therefore timely treat this disease, patients need to be examined early and by doctors with suitable specialization. The objective is investigating knowledge and searching behaviours for health establishments of male infertility.

Methods: This is a cross-sectional descriptive study at Binh Dan hospital from in 2017. We described the knowledge and searching behaviours for health establishments of male infertility.

Results: 154 patients participated in the study. The knowledge of male infertility was investigated at the cutting point of 70%. The rates of patients with adequate and inadequate knowledge of male infertility were 18.2% and

81.8% respectively. The percentage of patients with proper knowledge of diagnostic criteria for male infertility was 9.1%, with knowledge of treatment feasibility accounted for 29.2%, of the most favourable time in menstrual cycle for conceivability- 43.5%, of treatment feasibility- 29.2%. The percentages of patients who were aware of adverse effects of taking medicine with unclear origins and contacting with pesticides were 71.4% and 42.9% respectively. Those with knowledge of negative effects of alcohol and drug abuse, STDs and smoking accounted for 24.7%, 24% and 23.4% respectively. Regarding the searching behaviours for health services: the establishments which were most chosen were those of traditional medicines (60.4%); private clinics (37.1%); traditional Chinese medicine houses (34.4%). The reasons for patients choosing these establishments were: near their houses (37.1%); having relationships (34.4%) and keeping secrets (28.5%). The affective factors included: lack of information about good health establishments, geographical distance from home to hospitals, reluctance of waiting, lack of money, lack of support from local productive health centres, and pressure of having children.

Conclusion: The proportion of general knowledge about male infertility was only 18.2%. The choice of medical services for male infertility was only 17.2%. Factors influenced to male infertility care service: not enough funding, social prejudice, no attention of the medical profession for the disease.

Policy of full disclosure: None

PO-01-055

LOW INTENSITY SHOCK WAVES TO TREAT ERECTILE DYSFUNCTION: IS IT SAFE FOR PATIENTS TREATED WITH ANTICOAGULANTS?

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Objective: A large proportion of patients with vascular erectile dysfunction present a history of cardiovascular disease and are under anticoagulation or antiplatelet therapy. The aim of the study is to test the safety of low intensity shockwave therapy (LiST) in this group of patients.

Methods: Data were collected from two randomized clinical trials conducted by our research team and a pooled analysis was performed. The studies followed the same design and moreover the same shockwave machine (Dornier Aries 2) and the same application technique were used. Of the 138 patients who participated in both studies 35 were under single (n = 31) or double (n = 4) anticoagulation/antiplatelet therapy. These patients, according to the study they participated, were exposed to 6 (n = 2), 12 (n = 29) or 18 (n = 4) LiST sessions, using energy of 0.05 mJ/mm² (n = 23) or 0.1 mJ/mm² (n = 12). Before and after each treatment session, patients were screened for bleeding events (clinical examination, medical history). Also, penile ultrasound was also performed on all patients during the 1st and 3rd month follow-up visit.

Results: None of the patients reported symptoms related to the treatment. No evidence of a bleeding event was found and the penile ultrasound was normal after even 18 sessions with frequency up to 3 times a week.

Conclusion: LiST to treat erectile dysfunction seems to be a safe and well tolerated method in patients under anticoagulation/ antiplatelet treatment

Policy of full disclosure: None

PO-01-056

CURRENT STEP-WISE ESSM RECOMMENDATIONS FOR HYPOGONADISM SCREENING IN ERECTILE DYSFUNCTION ARE NOT COST-EFFECTIVE

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Objective: Hypogonadism is a prevalent co-morbidity with erectile dysfunction (ED) and current European Society of Sexual Medicine (ESSM) recommends screening for hypogonadism with total testosterone (TT) in ED patients. If low TT (<345 ng/dL) is detected, further assessment with LH and SHBG plus albumin is needed to further establish an etiology and treatment. However, recurrent venipuncture and added appointments in a setting of high prevalence of disease as the referral setting may render this approach costly. Our primary objective was to assess the cost-efficiency of the current step-wise approach versus ad initium full hormonal assessment in the referral setting.

Methods: Two hundred consecutive male patients referred for ED to specialist urology care by general practitioners were screened. All patients with a confirmed diagnosis of ED were included. Eighty one patients were included and assessed for hypogonadism in a step-wise approach. All patients collected two morning blood samples at least one week apart. Direct costs were calculated using the national public health care system reimbursement table and were compared with an hypothetical full hormonal evaluation for all patients.

Results: Mean patient screening TT was 457.85 ± 240.73 ng/dL and screening TT was less than 345 ng/dL or 12 nmol/L in 34.6% patients (n=28) leading to a full hormonal assessment. Another 4.9% (n=4) patients had suspected abnormal SHBG level and were assessed with TT and Mean patient screening TT was 457.85±240.73 ng/dL and screening TT was less than 345 ng/dL in 34.6% patients (n=28) leading to a full hormonal assessment. Another 4.9% (n=4) patients had suspected abnormal SHBG level and were assessed with TT and SHBG plus albumin ad initium. Using the current recommended approach there was a direct cost increase of 5.82 € per patient. Moreover, roughly 1 out of every 3 patients had two extra venipunctures and an additional medical appointment.

Conclusion: Current step-wise recommendations may prove costly in a high prevalence scenario as the referral setting as a direct cost increase of 5.82€ per patient was observed. Further cost-benefit analysis of hypogonadism screening for ED patients in other health care systems are needed in order to assess generalizability of Results and drive a change in current recommendations.

Policy of full disclosure: None

PO-01-057

PROGNOSTIC VALUE OF PENILE DUPLEX ULTRASOUND IN PATIENTS STARTED ON SILDENAFIL FOR ERECTILE DYSFUNCTION

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Objective: Penile duplex ultrasound (PDU) has been used for the diagnosis of erectile dysfunction (ED). Patients are often classified as normal, veno-occlusive dysfunction (VOD) or arterial insufficiency (AI), taking into account peak systolic velocity (PSV) and end diastolic flow (EDF). However, its role as a prognostic tool for first-line ED treatment is yet to be enlightened. Our primary objective was to assess PDU value as a prognostic tool for treatment response and satisfaction in ED patients started on sildenafil.

Methods: Two hundred consecutive male patients referred for ED were screened. All patients with a confirmed diagnosis of ED with at least 12 months duration were included. Participants were assessed with baseline, 3 and 6 months IIEF-5. At 6 months VAS and EDITS were also assessed. All patients had a standardized PDU with 15 ug intracavernous alprostadil at baseline by a blinded third-party. The highest PSV and EDF were recorded. Included patients were started on sildenafil 100 mg. Changes of treatment were allowed and recorded. Patients were divided in three PDU groups according to PSV and EDV cut-offs of 30 and 5 cm/s, respectively. Data were compared among and between groups.

Results: A total of 77 patients were included and there were 44, 25 and 8 patients with normal, VOD and AI, respectively. Mean IIEF-5 score for



normal, VOD and AI were 11.53 ± 4.37 , 10.29 ± 4.36 and 9.86 ± 3.39 at baseline and 24.56 ± 1.98 , 19.83 ± 5.26 and 15.83 ± 8.23 at 6 months, respectively. VAS score were 9.44 ± 1.35 , 6.67 ± 2.72 and 5.17 ± 3.54 , respectively. EDITS score were 83.33 ± 11.81 , 60.48 ± 19.85 and 50.38 ± 27.33 , respectively. There was a statistical difference among groups in IIEF-5 score, VAS and EDITS at 6 months ($p=0.000$ for all). Moreover, there was also a statistically significant difference between normal and VOD as well as normal and AI in all these categories, but none was noted between VOD and AI.

Conclusion: Standard PDU can predict response to ED treatment started on sildenafil as a diagnosis of VOD or AI portends a worse response to and less satisfaction with treatment.

Policy of full disclosure: None

PO-01-059

ASSOCIATION BETWEEN STRESS FROM OVERWORK AND PENILE FIBROSIS: A STUDY WITH A RAT MODEL OF STRESS

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Objective: We have previously reported that stress causes erectile dysfunction (ED) through cavernosal contraction, which is mediated by the RhoA/Rho-kinase pathway (Mori T, et al., 21st World Meeting on Sexual Medicine 2018). Chronic stress is also reported to cause fibrosis in the heart or kidney. However, there is no report on whether stress also causes fibrosis in the corpus cavernosum. Therefore, we investigated the mechanisms of stress-induced ED, focusing on changes in the penile structure.

Methods: Ten-week-old male Wistar/ST rats were divided into 2 groups: control group and stress group. Rats in the control group were kept in a normal cage. Rats in the stress group were kept in a cage filled with water to a height of 2.0 cm for 5 days. Erectile function was evaluated on the basis of the intracavernosal pressure (ICP)/mean arterial pressure (MAP) under stimulation of the cavernous nerve. Histological analysis was conducted using Masson's trichrome staining. Molecular biological analysis was conducted using real-time polymerase chain reaction analysis. Serum testosterone levels were measured using enzyme-linked immunosorbent assay.

Results: The ICP/MAP was significantly lower in the stress group than in the control group. Moreover, the smooth muscle/collagen ratio of the corpus cavernosum was significantly lower in the stress group than in the control group. The mRNA expression of interleukin-6 and tumor necrosis factor- α was significantly higher in the stress group than in the control group. The serum testosterone levels were lower in the stress group than in the control group.

Conclusion: These findings suggest that stress may cause ED through penile fibrosis, which is considered to occur because of low testosterone levels and the production of inflammatory cytokines. Longer exposure to stress may lead to the development of organic ED. Therefore, immediate relief from stressful situations may be important.

Policy of full disclosure: None

PO-01-060

EFFECTS OF KOREAN RED GINSENG EXTRACT AND HYDROGEN-RICH WATER MIXTURE ON SPERMATOGENESIS AND SPERM MOTILITY IN THE MOUSE MODEL

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Objective: Male fecundity was majorly declined with aging due to age-related oxidative stress, et cetera. Natural therapies with herbal supplements have been increasing popularly as an option to treat male sub- or infertility. Hydrogen rich water (HRW) is a potent antioxidant and Korean red ginseng (KRG) has a various function including the improvement of spermatogenesis

and sperm motility on previous literatures. This study is aimed to investigate the effect of hydrogen-rich red ginseng water (HRGW) on spermatogenesis and sperm motility in the mice of young and aged group.

Methods: C57BL/6 male mice of young (3 months) and aged group (12 months) were randomly assigned to four groups and then they were administered once daily in a volume of 10mL/kg of body weight by an oral zoned needle for a period of 4 weeks: (1) Control group (n=10), (2) HRW group (n=10), (3) KRG group (n=10, 50mg/kg/day); (4) HRGW group (n=10). After treatment of 4 weeks, sperm count and motility were measured using sperm suspension released from cauda epididymis, and serum FSH, LH, testosterone and reactive oxygen species (ROS) were measured. Testicular morphology was examined by histological H&E staining. Expression of anti-oxidation (PPx3, PPx4, GSTm5 and GPx4), spermatogenesis (inhibin- α , Neptin-4, and CREM), antiaging (Sirt1 and Sirt2), and angiogenesis (visfatin and VEGF)-related genes in the testes were examined with Real-time polymerase chain reaction (real-time PCR).

Results: Each single HRW and KRG preparation stimulate spermatogenesis followed by increasing sperm density and sperm motility. These effects were strengthened synergistically by HRGW ($p<0.05$). HRGW greatly increased not only gene expressions of anti-oxidation, antiaging, spermatogenesis, VEGF and angiogenesis related, especially in aged mice than in young mice, but also increased serum testosterone level, while decreased serum ROS level ($p<0.05$ in each). Histopathological finding was also similar tendency in HRGW group.

Conclusion: As above Results, this study clearly demonstrates that HRGW significantly increased sperm density and motility by enhancing anti-oxidation, sex hormonal production and local microcirculation, especially in aged mice than in young mice.

Policy of full disclosure: None

PO-01-061

YOUTH SEXUAL HEALTH IN EUROPE: FIRST RESULTS FROM THE EUROPEAN FEDERATION OF SEXOLOGY YOUTH COMMITTEE STUDY

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Objective: Acceptance of sexual health as fundamental human right has allowed for creation of new health programs and policies. As they mature and become sexually active, young people might face serious health risks with insufficient information and too little access to health care services. The main aim of this study was to explore some sexual health related factors (Sexual Functioning, Distress, Quality of Life [QoL], and Alexithymia) across different European countries in a sample of university students (aged between 18-25).

Methods: A total of 1860 people (699 men and 1161 women) were recruited with a snowball technique from the general population in 4 European countries (Italy, Malta, Turkey, and Norway) by the Youth Committee of the European Federation of Sexology. Participants answered a brief socio-demographic questionnaire, the International Index of Erectile Function (IIEF), the Female Sexual Functioning Index (FSFI), the Sexual Complaints Screener (SCS), the Short Form 36 (SF36) and the Toronto Alexithymia Scale (TAS20).

Results: Maltese group reported more often to be in a stable relationship, to be employed and to have children. High consumption of alcohol and recreational drugs were reported in all countries. Sexual functioning in all countries (except Maltese women) were below the clinical cut off score for FSFI [$F(3,1075)=89.55$; $p<.001$] and IIEF [$F(3,647)=28.45$; $p<.001$]. QoL was lower in Norway and Turkey [$F(3,1672)=33.98$; $p<.001$] and Maltese group reported clinical score in Alexithymia [$F(3,1672)=39.30$;

$p < .001$]. Country differences in sexual dysfunctions and distress were highlighted.

Conclusion: This study showed an alarming situation about sexual health in these European countries. To better understand the Results, we should consider that sexual health is the result of a complex interconnection between biopsychosocial phenomena. Cultural differences should be also considered, even if European young people are moving towards a rapid cultural globalization and unification.

Policy of full disclosure: None

PO-01-063

PREDICTIVE VALUE OF TESTICULAR LENGTH DIAMETER TOWARDS SURGICAL SPERM RETRIEVAL OUTCOME IN MEN WITH AZOOSPERMIA

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Objective: The association between testicular length diameter and surgical sperm retrieval outcome in men with azoospermia has not been clearly established.

Methods: This retrospective study included 30 infertile men with azoospermia. All subjects underwent surgical sperm-retrieval procedures. The outcome of sperm retrieval in subjects was compared to their longest testicular length diameter using Mann Whitney test with $p < 0.05$ considered statistically significant. Analysis of logistic regression was used to determine the cut-off point of the longest testicular diameter for predicting successful sperm retrieval.

Results: The age range of subjects was 27-59 years and 89.7% of the subjects were also diagnosed with clinical varicocele. Sixty four percent of subjects underwent PESA/TESE procedure while the other 36% underwent PESA/TESE combined with microligation surgery of varicocele. The median value of FSH level was 7.86 (1.72-69.1) mIU/mL, while the median value of serum testosterone level was 390 (102.0-760.0) ng/dL. The median value of longest testicular length diameter in each subject was 3.62 (1.62-4.5) cm. There is a significant negative correlation between FSH level and longest testicular length diameter ($r = -0.703$, $p < 0.001$). Successful sperm retrieval outcome was observed in 22 (56.4%) subjects. Furthermore, there is an association between longest testicular length diameter and surgical sperm-retrieval outcome ($p < 0.001$). Cut-off value of 3.55 cm for longest testicular length diameter has an 81.8% sensitivity and 76.5% specificity to predict successful surgical sperm-retrieval outcome in men with azoospermia ($p < 0.001$; AUC 89.4% 95% CI 79.4-99.5%).

Conclusion: Testicular length diameter has a potential to be used as a predictor of surgical sperm-retrieval outcome in men with azoospermia.

Policy of full disclosure: None

PO-01-064

TESTOSTERONE RELAXES HUMAN CORPUS CAVERNOSUM TISSUE OF PATIENTS WITH ERECTILE DYSFUNCTION

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Objective: To investigate the effect of testosterone (T) on relaxation of human corpus cavernosum tissue.

Methods: Human corpus cavernosum tissue samples were obtained after consent from men undergoing penile prosthesis implantation ($n=46$) for



organ bath experiments. Tissue strips were precontracted with phenylephrine after which increasing doses of T, DHT, and androstenedione were added. Blockade of androgen receptor as well as hydrogen sulfide and nitric oxide biosynthesis was studied. Fifteen minutes after addition of the different compounds, tissue relaxation was measured. Results are expressed as mean \pm SD. Statistical analysis was performed using unpaired t-test.

Results: T relaxed precontracted tissues with $70.7 \pm 16.9\%$ ($p = 0.003$) at 300 microM compared to DMSO vehicle only. Addition of 300 microM of androstenedione ($p = 0.17$) and DHT ($p = 0.09$) resulted in no significant difference in relaxation compared to T. Maximum relaxation response to T were not inhibited by N (G)-nitro-L-arginine methyl ester ($p = 0.16$), beta-cyanoalanine ($p = 0.16$), propargylglycine ($p = 0.34$) and glibenclamide ($p = 0.73$). The addition of 350 nanoM flutamide (androgen receptor inhibitor) did not alter the effect of T on tissue relaxation with $80.2 \pm 26.5\%$ of relaxation compared to T alone ($p = 0.25$).

Conclusion: Previous research has suggested that T could have a relaxation effect on smooth muscle cell tissues. We have shown that within the T biosynthesis pathway, T as well as precursor and derivative compounds relax human corpus cavernosum tissues. Blockade of androgen receptor, nitric oxide, and hydrogen sulfide biosynthesis did not change the effect of T on relaxation. This suggests that the observed effect is mediated in a non-genomic fashion. Because the effect is only seen at supraphysiological concentrations of T, further research is needed to elucidate the non-genomic mechanism of action of T on human CC tissue.

Policy of full disclosure: None

PO-01-065

PSYCHOPATHOLOGY IN SEXUAL DYSFUNCTION: EXPERIENCE IN A PORTUGUESE OUTPATIENT CLINIC

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Objective: There are few studies concerning the association between psychological determinants and sexual functioning. Existing findings suggest people with sexual dysfunction may experience more intense psychopathology. Our aim is to investigate correlations between psychopathology and sexual dysfunction.

Methods: A clinical sample of 47 subjects (51% male) with a DSM-5 diagnosis of sexual dysfunction was enrolled in the study. Participants completed a sociodemographic questionnaire and a set of validated clinical instruments (Brief Symptom Inventory (BSI), Female Sexual Function Index (FSFI) and International Index of Erectile Function (IIEF). Statistical analysis was performed on STATA13.1, and Spearman correlation (rs) coefficients were calculated for different variables, with a significance level of 0.05.

Results: Subjects' mean age was 40.6 ± 10.1 for males and 36.4 ± 7.8 for females. For women, BSI values suggestive of mental disturbance were found for interpersonal sensitivity (IS) (1.38, IQR 0.38-2.38), depression (2.0, IQR 0.25-3.25), paranoia (1.3, IQR 0.2-2.4) and positive symptoms distress index (PSDI) (1.94, IQR 1.49-2.32). A strong correlation between low total FSFI score and high PSDI was found ($rs -0.7$, $p = 0.01$). Regarding BSI subscales, strong correlations between decreased orgasmic ability and both IS ($rs -0.59$, $p = 0.046$) and hostility ($rs -0.68$, $p = 0.015$) were found. Increased pain levels were strongly correlated with obsessive-compulsive symptoms ($rs 0.97$, $p < 0.0001$), IS ($rs 0.82$, $p < 0.001$), depression ($rs -0.82$, $p < 0.001$), anxiety ($rs 0.9$, $p < 0.0001$), hostility ($rs -0.93$, $p < 0.0001$), and phobic anxiety ($rs -0.74$, $p = 0.0006$). For men, no values suggestive of psychopathology were found for any of the 12 BSI subscales. A strong correlation was found between decreased EF and both paranoia ($rs -0.78$, $p = 0.003$) and psychoticism ($rs -0.69$, $p = 0.01$), and also between decreased desire and phobic anxiety ($rs -0.74$, $p = 0.006$).





Conclusion: Women with sexual dysfunction present higher levels of psychopathology than men. Our Results suggest women with pain and orgasm disorders feel inadequate and less confident, with propensity for social isolation and express anger towards themselves and others.

Policy of full disclosure: None

PO-01-066

SEXUAL PROBLEMS AND DYSFUNCTIONS: DO PATIENTS ACCURATELY REPORT THEIR COMPLAINTS?

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Objective: The most common reasons for medical assistance in men are erectile and ejaculation disorders, whereas in women are interest and arousal disorders. There may be, however, a disparity between the sexual complaints that first motivated the patient to look for help and those found on the clinical interview and screening questionnaires. Our aim is to investigate the difference between the spontaneous sexual complaints and those found on validated questionnaires.

Methods: A clinical sample of 47 subjects (51% male) referred to our Sexology Outpatient Clinic was enrolled in the study. Participants completed a socio-demographic questionnaire and a set of validated clinical instruments (Female Sexual Function Index (FSFI) and International Index of Erectile Function (IIEF)). Statistical analysis was performed on STATA13.1.

Results: Subjects' mean age was 40.6±10.1 (males) and 36.4±7.8 (females). Men were referred for erectile dysfunction (ED) (58.3%, n=14), premature ejaculation (33.3%, n=8) and low sexual desire (8.3%, n=2). When IIEF was applied, 75% met criteria for ED. The median value for erectile function dimension is 10 (interquartile range (IQR) 7-20.5), for the orgasm dimension was 8.5 (IQR 6-10), and for desire 7 (IQR 3.5-9). Median values for sexual satisfaction and overall satisfaction were very low: 5.5 (IQR 4.5-7.5) and 3.5 (IQR 2-5.5) respectively. Women were referred for low sexual desire (43.8%, n=10), anorgasmia (34.8%, n=8), genital pain (17.4%, n=4) and arousal disorder (4.3%, n=1). When FSFI was applied, the median value for all dimensions was below the cut-off: desire 1.5 (IQR 1.2-2.7), arousal 1.35 (IQR 0.6-2.1), lubrication 1.35 (IQR 0.6-2.7), orgasm 1.2 (IQR 0.6-1.6), satisfaction 1.7 (IQR 1.0-2.8) and genital pain 1.8 (IQR 0.6-4.2).

Conclusion: Overall, women present a complex spectrum of sexual problems. Besides sexual dysfunctions themselves, sexual satisfaction is very low in our sample, a dimension that is frequently overlooked. All dimensions of

sexual function should be explored, even when the patient presents with an isolated complaint.

Policy of full disclosure: None

PO-01-068

HORMONAL FACTORS IN PATIENTS WITH ERECTILE DYSFUNCTION AND DIABETES

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Objective: Diabetes damages vasculature and neurones and can therefore contribute to erectile dysfunction (ED). Although endocrine abnormalities are common in patients with ED, we hypothesised that they are less important in longstanding diabetes.

Methods: Therefore, patients attending the out-patient diabetes clinic for ED treatment were included. Blood pressure, fasting serum glucose, cholesterol and triglyceride levels were measured together with TSH, LH, FSH, prolactin and testosterone level.

Results: Ninety-five consecutive patients were analysed. They were 51±9 years old and had a longstanding diabetes (12 ±8 years). 22 (23%) patients had type 1 diabetes, 70 (74%) patients had type 2 diabetes and 3 (3%) patients had other types of diabetes. 73% of patients had established peripheral polyneuropathy and 49% had macrovascular disease. In 19% ED was due to a neurological cause, in 31% to a vascular cause, in 36% to a combined neuro-vascular cause, in 11% to a psychological cause and in 3% to an iatrogenic cause. Only 1 patient had lower testosterone level, 5 patients had increased LH and 17 patients had increased FSH. Three patients had increased TSH and 1 patient had increased prolactin concentration. In patients with complete vs. partial ED there was no significant difference in hormone status. Patients with neurogenic cause of ED had a higher serum testosterone level compared to patients with vascular (28,6 ±12,2 vs. 20,2 ±7,4 nmol/l) or combined (22,5 ±8,0 nmol/l; p=0,029) cause. Night-time erection was associated only with shorter duration of ED (p=0,05) but with none of the hormonal or metabolic variables investigated.

Conclusion: Even though vascular and neurogenic factors play a central role in the development of ED in longstanding diabetes, assessment of hormonal factors should not be neglected. Nevertheless, hormonal testing should be offered at least to patients with symptoms and signs of hypogonadism.

Policy of full disclosure: None

PO-01-069

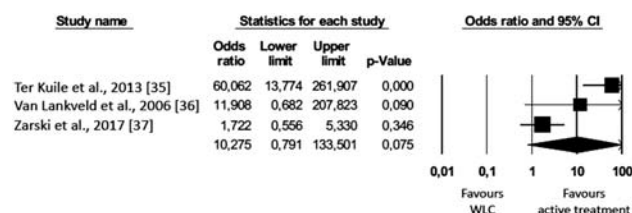
GNRH ANALOGUES: AN EFFECTIVE PHARMACOLOGICAL APPROACH FOR THE MANAGEMENT OF RESTRICTIVE EATING BEHAVIORS RELATED TO GENDER DYSPHORIA IN ADOLESCENTS

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Objective: The co-occurrence of Gender Dysphoria (GD) and Anorexia Nervosa (AN) has been described in the scientific literature. While the emphasis so far has focused on the overlap in symptomatology of the two conditions, pathological eating behaviors in adolescents with GD may have a different psychopathological meaning. The main objective of the study is to conceptualize pathological eating behaviors (in particular, dieting, weight loss and intense physical activity) in adolescents with GD as a dysfunctional coping strategy used to deal with pubertal body changes. Furthermore, to describe the use of gonadotropin-releasing analogs (GnRHa) as an effective treatment option when adolescents with GD present restrictive eating behaviors.



Methods: Two cases of adolescents with GD and pathological eating behaviors are presented. Both received psychological evaluations and endocrinological examinations at different times: at first admission to the GD clinic (T0) and 6 months after starting treatment with GnRHa (T1). In particular, at both times depression, anxiety, body dissatisfaction, social withdrawal, as well as suicidal risk were assessed. Regarding medical measures, Tanner stage, weigh, height, waist, body mass index (Kg/m²), Ferriman Gallwey score and hormonal levels were performed.

Results: In both cases, treatment with GnRHa not only improved psychological functioning, but also resolved pathological eating behaviors. In fact, both adolescents reported quick restoring of healthy food habits with restricting eating behaviors as well as intensive exercise no longer needed after treatment with GnRHa.

Conclusion: In adolescents with GD, pathological eating behaviors (e.g. food avoidance and weigh loss) could be assessed as a dysfunctional copying strategy adopted to gain control over a body developing in an unwanted direction and to block irreversible physical pubertal changes. This stresses the importance of providing, in selected cases, early medical intervention such as pubertal suppression with GnRHa.

Policy of full disclosure: None

PO-01-070

TRANSCUTANEOUS POSTERIOR TIBIAL NERVE STIMULATION FOR PREMATURE EJACULATION: CLINICAL TRIAL PHASE II

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Objective: Studies show that Transcutaneous Posterior Tibial Nerve Stimulation (TPTNS) may modulate peripheral spinal reflex excitability. None of these studies evaluated its effects on the ejaculatory reflex. The aim of this study is to evaluate if this therapy is safe and generates a delay in the intravaginal ejaculation latency time (IELT) in patients with premature ejaculation (PE).

Methods: Phase II clinical trial. Patients with 18 to 50 years of age, with at least a 6-month relationship, having intercourse at least weekly and with a diagnosis of primary PE were included. Patients with erectile dysfunction, premature ejaculation diagnostic tool (PEDT) <8, taking ejaculation-delaying medications, using pacemakers, having epilepsy or convulsions, venous insufficiency, cutaneous injuries on the lower extremities were excluded. Patients were required not to use condoms or local anesthetics during intercourse. Participants received 3 TPTNS sessions per week for 12 weeks. IELT, PEDT score, and adverse events were measured at baseline, week 6, and at the end of treatment.

Results: 26 patients were initially admitted. The median age was 30 (rank 21-49), the PEDT initial median was 16 (rank 11-20) and the IELT median was 44.7 seconds (rank 13-180). 18 patients received full treatment, 8 patients withdrew due to lack of time to receive the therapies. After 18 therapies 33.3% of patients had at least tripled their baseline IELT, at the end of treatment this percentage was 43.8% (p=0.107), and at the third month follow-up this was 58.8% (p=0.0048). After 18 therapies the IELT's mean increased 2.92 times, by the end of the intervention IELT's mean increased 5.6 times, and 6.2 times three months after finishing therapy. The PEDT decreased on average 3.9 points after 18 therapies (+/- 3.1), 5.7 after 36 (+/- 4.2), and 5.7 (+/- 2.6) three months later. One constipation episode was reported, which was treated with a fiber-rich diet. A patient reported sensation of heat in the leg during therapy, which disappeared spontaneously.



Conclusion: TPTNS therapy is safe for treatment of PE in patients diagnosed with primary PE without previous treatment, increasing the intravaginal latency time without serious adverse events.

Policy of full disclosure: None

PO-01-073

MORE NEGATIVE SEXUAL SELF-CONCEPT IN MEN WITH ERECTILE DYSFUNCTION, PREMATURE EJACULATION OR LOW SEXUAL DESIRE

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⁵University Dusseldorf, Urology, Germany; ⁶University Heidelberg, Urology,

Germany; ⁷Hannover Med. School, Urology, Germany

Objective: The aim of this study was to investigate the association between men's sexual self-concept and erectile dysfunction, premature ejaculation and low sexual desire.

Methods: The study population consists of 45-year old men who were sampled during the first two years of the German Male Sex-Study (April 2014 – April 2016). Subjects underwent a short interview and a brief physical examination conducted by a physician and filled out questionnaires including questions about sexual self-concept and sexual dysfunctions. Four aspects of self-concept were investigated: body image (three items from the Dresden Body Image Inventory), understanding of masculinity (three items from the Male Role Norm Scale), perceived social pressure with regard to sexual performance, and sexual self-esteem (four/three newly designed items). All items were rated on a 5-point Likert-scale. Erectile function was assessed using the IIEF-EF, premature ejaculation using the Sexual complaints screener. One question evaluated sexual desire. Wilcoxon and Kruskal-Wallis tests were conducted.

Results: A total of 12,220 men were included in the analysis. Overall, men reported a positive self-concept. 28.4% had erectile dysfunction, 5.5% premature ejaculation, and 5.0% indicated low sexual desire. A more negative body image, a greater perceived social pressure with regard to sexual performance and a lower sexual self-esteem could be shown in men with erectile dysfunction, premature ejaculation and low sexual desire, respectively (p<.001). A more traditional understanding of masculinity was found in men with erectile dysfunction and premature ejaculation (p<.001), but not in men with low sexual desire.

Conclusion: 45-year old men with at least one sexual dysfunction showed a more negative self-concept. These Results emphasize the importance of psychological aspects in the context of sexual dysfunctions.

Policy of full disclosure: None

PO-01-074

COULD VITAROSTM BE CONSIDERED AS A VIABLE ALTERNATIVE FOR THE TREATMENT OF POST-PROSTATECTOMY ERECTILE DYSFUNCTION? A PROSPECTIVE STUDY FROM A SINGLE CENTER.

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Objective: To evaluate the efficacy and safety of intraurethral use of alprostadil cream (VitarosTM) after radical prostatectomy as an alternative post-prostatectomy rehabilitation treatment.

Methods: 46 patients who were about to undergo RARP by the same highly experienced surgeon, due to prostate cancer, were enrolled in this study, having given a written consensus. Inclusion criteria included age <75 years, preoperative IIEF5 score > 21, preoperative Erection Hardness Score (EHS) >= 3, >= 1 preoperatively number of weekly sexual intercourse with a stable sexual partner, affirmatively answers to Sexual Encounter Profile Questions 2 and 3 (SEP2 & SEP3), preoperative quality of life < 2 (QoL



Table 1. Prognostic factors of acute epididymo-orchitis

Factor	N	Mean	P
Age	Orchidectomy	51.1 ± 17.4	P < 0.001
	Non - orchidectomy	39.4 ± 15.3	
time from the onset of the disease to admission (hour)	Orchidectomy	15.4 ± 12.1	P = 0.383
	Non - orchidectomy	10.4 ± 14.8	
Malacia	Yes	68	P < 0.001
	No	303	
WBC	> 20000/mL	307	P = 0.204
	< 20000/mL	64	
Epididymal abscess	Yes	60	P < 0.001
	No	311	
Testicular abscess	Yes	54	P = 0.004
	No	317	
Reduction or absence of testicular blood flow (on US)	Yes	19	P < 0.001
	No	352	

visual scale from delightful equals 0 to terrible equals 6) and absence of diabetes, moderate to severe cardiovascular disease or metabolic syndrome. One month after the operation all patients received Vitaros twice a week and they were re-evaluated after 3 and 6 months period.

Table 2. Subgroup of acute epididymo - orchitis and treatment outcomes

Group	N	Ultrasound	Malacia	Abscess dimension (mm)	Treatment	Efficacy of treatment
I	103	Epididymitis	-	-	Medical treatment: 85.4 % Epididymectomy: 14.6%	100%
IIA	98	Orchitis	-	-	Medical treatment: 95.9% Orchiectomy: 4.1%	95.9%
IIB	56	Acute epididymo - orchitis	-	-	Medical treatment: 78.6% Epididymectomy: 14.3% Orchidectomy: 7.1%	92.9%
III	53	Abscess of epididymis ± testicle	±	8.7±4.2 17.6 ± 10.3 13.6 ± 5.6	Medical treatment: 11.3% Epididymectomy: 45.3% Orchidectomy: 43.4%	57.7%
IV	42	Abscess of epididymis ± testicle	±	13.7 ± 2.7 (Max: 14 Min: 10) 23.9 ± 8.7 (Max: 14 Min:40)	Medical treatment: 38.1% Epididymectomy & orchidectomy: 61.9%	38.1%
V	19	Loss of testicular blood flow ± epididymo-testicular abscess	±		Medical treatment: 21.1% Epididymectomy & orchidectomy: 78.9%	21.1%

Results: One month after the operation, without receiving any treatment, only 2 patients reported spontaneous erection (mostly tumescence, not rigid erections) and no one having sexual intercourse. After 3 months period of intraurethral administration of Vitaros™, the mean IIEF5 score was 15 from 23 preoperatively, mean EHS score was 2.5 from 3.2, the number of weekly sexual intercourse was 1.2 from 2.3, 61% had a positive SEP2 and 54% a positive SEP3 response and the QoL score was increased to 2.8 from 1.6. At the end of the first 3 months period, 5 patients discontinued the use of Vitaros™ either due to economic reasons or severe pain. After another 3 months period, total 6 months of Vitaros™ usage the mean IIEF5 score was 19, mean EHS score was 3.1, the number of weekly sexual intercourse was 1.6, 73% had a positive SEP2 and 68% a positive SEP3 response and the QoL score was decreased to 2.2. At the end of the evaluation, 1 more patient discontinued due to economic reasons and 3 switched to tri-mix injection therapy due to poor response to Vitaros™ (2 of them did not respond also to penile injections as well).

Conclusion: The intraurethral use of alprostadil cream (Vitaros™) after RARP for rehabilitation reasons seems to be a promising alternative to the well-established use of PDE5Is or intracavernous injections in well-selected patients.

Policy of full disclosure: None

PROGNOSTIC FACTORS OF TREATMENTS

PO-01-075

EFFECTS OF A NUTRACEUTICAL COMPOUND COMBINED WITH AVANAFIL ON STANDARD SPERM PARAMETERS, PERCENTAGE OF MATURE SPERMATOZOA, AND SPERM CAPACITY TO UNDERGO HYPERACTIVATION

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Greece; ⁷Manila Urology Institute, Philippines; ⁸Tottori University, Thessaloniki, Japan

Objective: The main objective of this randomized-controlled trial was to evaluate the effects of a nutraceutical compound (NC) and the effects of avanafil on sperm functional assays administered either alone or in combination.

Methods: Men with oligoasthenospermia (n=217) were treated daily for 90 days with either an NC (45men, Group-A), L-carnitine (44men, Group-B), NC plus avanafil (43men, Group-C) or avanafil (43men, Group-D); another group of 42 oligoasthenospermic men (Group-E) received no treatment. Sperm parameters were performed before and after the end of treatment in each Group A,B,C and D respectively. The same sperm parameters were evaluated in each participant of Group-E before and at the end of the experimental period. Wilcoxon test for paired observations and Chi-square test (Yates' correction) were employed for statistical analysis to evaluate, within each group, differences in the mean values (prior to and at the end of the experimental period) for each quantitative and qualitative parameter respectively. A probability $P < 0.05$ was considered to be statistically significant. All assays were conducted in a blind fashion.

Results: Within Groups A,C or D, the total percentage of motile spermatozoa, the result of hypoosmotic swelling test (HOST) and the percentage of hyperactivated spermatozoa after incubation under conditions known to promote sperm capacitation were significantly larger after NC or NC plus avanafil treatment, or avanafil treatment than before the respective treatment.

Conclusion: We suggest that NC and avanafil administered both alone or in combination improve sperm membrane permeability with an overall result enhancement in sperm motility and outcome of HOST, and increased percentage of hyperactivated spermatozoa under conditions known to induce sperm capacitation. Considering that the outcome of sperm hyperactivation assay and the outcome of HOST are known to have significant and positive correlation coefficients with the outcome of in vitro fertilization, it appears that NC and/or avanafil improve significantly the male reproductive potential.

Policy of full disclosure: None

PO-01-076

PATTERNS OF NATIONAL HEALTH SYSTEM REIMBURSED PRESCRIPTION FOR ERECTILE DYSFUNCTION: AN ECOLOGICAL POPULATION-BASED STUDY

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Objective: The Italian National Health System (NHS) completely reimburses erectile dysfunction (ED) prescriptions in men with iatrogenic pelvic nerve injury, mostly due to radiotherapy or radical prostatectomy for prostate cancer (PCa). Each Italian region establishes the extent and inclusion criteria of this reimbursement. We performed an ecological population-based study in order to analyze the pattern of filled prescriptions by using data of six different Italian regions (= experimental units).

Methods: We searched for NHS reimbursed filled prescriptions for ED drugs using ATC codes (G04BE01 for alprostadil, G04BE03 for sildenafil, G04BE09 for tadalafil, G04BE09 for vardenafil, and G04BE10 for avanafil) (Figure 1). PCa regional prevalence was used as a denominator in order to estimate the proportion of men at risk of having iatrogenic pelvic nerve injury. We then tested the correlation between the receipt of ED drugs vs. regional socio-economic and health-care characteristics (gross domestic

product or GDP, unemployment rate, secondary and tertiary education level, and number of active academic urologist).

Results: Overall, 6948 men who filled at least one NHS reimbursed prescription for ED between 2015 and 2017, whereas 56953 prevalent PCa cases were recorded. The proportion of men receiving these drugs was 12%, with 3.5-fold regional variation (8% up to 28%). Of 6948 men, the most commonly used drug was tadalafil (4079; 59%). No significant temporal trends emerged during the analyzed 3-year period. A negative correlation was observed between prescription filling and GDP ($R -0.98$, $p=0.02$) and the number of active academic urologists ($R -0.75$, $p=0.04$). Unemployment rate ($R 0.85$, $p=0.03$) was positively associated with prescription filling.

Conclusion: NHS reimbursed DE drugs are underutilized in Italy. We report a wide variation in the pattern of prescription filling for these drugs, mostly associated to lower socio-economic and health-care determinants in the different analyzed regions.

Policy of full disclosure: None

PO-01-077

THE EFFECTS OF TESTOSTERONE TREATMENT ON FAT TISSUE DYSFUNCTION AND NONALCOHOLIC FATTY LIVER DISEASE IN OBESE MEN UNDERGOING BARIATRIC SURGERY

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Objective: Substitution treatment of hypogonadism in clinical and experimental models has shown beneficial effects on insulin sensitivity and accumulation of visceral and liver fat. Aim of the study was to analyze the effects of testosterone replacement therapy on benign prostatic hyperplasia/lower urinary tract symptoms (BPH/LUTS) clinical parameters, adipose tissue dysfunction and nonalcoholic fatty liver disease (NAFLD) in obese patients candidates for bariatric surgery.

Methods: Patients were divided into three groups: eugonadal, untreated hypogonadal and symptomatic hypogonadal treated for 6-8 months with testosterone. BPH/LUTS parameters were assessed by IPSS (International Prostate Symptom Score) and prostate ultrasound. Preadipocyte cells (hPADs) isolated from adipose tissue biopsies were used to evaluate insulin sensitivity, adipogenic potential and mitochondrial function. NAFLD was evaluated by triglycerides (TG) assay and histological examination of liver biopsies.

Results: Clinically, notwithstanding a prostate volume increase, testosterone treatment improved the IPSS score and hyperemia. Liver TG levels correlated positively with both steatosis and NAS scores, and resulted significantly higher in hypogonadal patients when compared to eugonadal patients, with testosterone treatment significantly reducing TG levels. In the liver, testosterone treatment induced an increased mRNA expression of lipid metabolism markers, whereas in visceral adipose tissue it induced an increased mRNA expression of lipid catabolism and mitochondrial biofunctionality markers. In hPADs testosterone treatment induced an increased mRNA expression of brown adipogenesis and mitochondrial biofunctionality markers. Testosterone treatment normalized hPADs ability to respond to increasing concentrations of insulin. Accordingly, glucose uptake AUCs showed a positive correlation with testosterone levels. Hypogonadal hPADs mitochondria displayed a lower average length and a superoxide generation increase, compared to eugonadal, with testosterone treatment normalizing both parameters.

Conclusion: Our data suggest that testosterone treatment improves LUTS and induces a metabolically healthier phenotype in hPADs in obese hypogonadal male patients, also displaying a potentially protective role on the progression of NAFLD.

Policy of full disclosure: None

PO-01-078

SEXUAL FUNCTIONAL CHARACTERISTICS IN PATIENTS WITH CHRONIC PELVIC PAIN SYNDROME MALE

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Objective: Chronic pelvic pain syndrome (CPPS) deteriorates patients' quality of life (QoL) due to pain. Pelvic organs and muscles share majority of their innervations, therefore, there have been reported sexual activities are also affected by the presence of CPPS in male. In this study, we aimed to analyze the clinical impact of CPPS in male sexual function.

Methods: This is a single center, retrospective analysis. Data of 90 patients who had been diagnosed as CPPS from Jan 2015 to Dec 2017 was collected and analyzed. Urinalysis after prostatic massage (VB3), symptom questionnaire of NIH-CPSI with pain, voiding, QoL questions, IIEF-5, ejaculatory competency, serum total and free testosterone, serum SHBG levels were measured. As a control group, data of age matched non-symptomatic, healthy 50 males were selected. Statistical analysis considered to be significant if $p < 0.05$.

Results: Mean age of patient group was 51.1 ± 12.9 years old and for the control group was 52.3 ± 11.2 years old. Score of IIEF-5, ejaculatory competency, serum levels of total testosterone, SHBG and free testosterone were all significantly different between the patient and the control groups ($p < 0.05$). Correlation coefficients of ejaculation, serum hormonal levels between pain showed statistical significance. Results are shown on table 1 and 2.

Conclusion: Sexual functions are deteriorated in patients with CPPS. However, significant changes free and total testosterone levels in CPPS male compared with normal control, suggest that the underlying hormonal changes may affect the pathogenesis of pelvic pain resulting in aggravated or mingled phenotype as CPPS with sexual functional deterioration.

Policy of full disclosure: None

PO-01-079

PROSPECTIVE EVALUATION OF THE SURGICAL OUTCOME IN PATIENTS WITHOUT DRAIN, WITH A 24-HOUR DRAIN, AND WITH PROLONGED DRAIN AFTER INFLATABLE PENILE PROSTHESIS IMPLANTATION

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Objective: There are hardly any clearly defined strategies concerning drainage after implantation of inflatable penile prostheses (IPP). The preferences are ordinarily subjective and depend on the preference of different surgical schools. Thus, in most German urological departments, no drain placement after IPP implantation is recommended by tradition; moreover this is considered to increase the risk of postoperative infection. We have evaluated the postoperative outcome with and without drainage of the surgical site.

Methods: All patients underwent IPP implantation by two high volume surgeons from the same surgical school. Implantations were done from a

penoscrotal access. Coloplast Titan Touch® devices were used. Consecutive patients without previous penile implantation were included. We divided our patients into 3 groups: 1. without drain ($n=50$), 2. 24 hours drain ($n=50$), 3. 72 hours drain ($n=50$). All patients received the same antibiotic administration according to the clinical guidelines. Surgical comorbidities, such as evidence or absence of scrotal hematoma and infections associated with IPP were evaluated. Postoperative follow-up was 60 days.

Results: There was no significant difference in age, BMI, operative time, medical comorbidities. The patients from Group 3 developed significantly less hematoma compared to Groups 1 and 2. Our definition for hematoma was a scrotal swelling correlating with ultrasound evidence of free floating hematoma. Ultrasound was done after 24 hours, on the 3rd and 10th postop day. The exact distribution of hematoma prevalence was as follows: in Group 1: 22% ($n=11$, $p=0.005$); Group 2: 12% ($n=6$, $p=0.05$); Group 3: 2% ($n=1$, $p=0.002$). Of the patients in the group without drain 4% ($n=2$ ($p=0.005$)) developed IPP-associated infections leading to device removal. All of these patients had a hematoma prior to infection. There were no infections in Groups 2 and 3.

Conclusion: Prolonged drainage up to 72 hours after virgin IPP implantation significantly reduces the rate of hematoma without an increased risk of drain-associated infections.

Policy of full disclosure: None

PO-01-080

INTRACYTOPLASMIC SPERM INJECTION (ICSI) OUTCOME USING CRYOPRESERVED TESTICULAR SPERM FROM NON-OBSTRUCTIVE AZOOSPERMIC INFERTILE MEN WITH VARICOCELE

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Objective: To study the outcome of ICSI using cryopreserved testicular sperm from infertile men with varicocele-associated non-obstructive azoospermia (NOA).

Methods: The study included 40 infertile men with NOA who underwent ICSI with cryopreserved testicular sperm. Twenty two patients had clinically palpable varicocele (group 1) and 18 had no detectable abnormality in their genital examination (group 2). Diagnosis of varicocele was confirmed by scrotal color Doppler ultrasound. Diagnosis of azoospermia was confirmed by repeated absence of sperms in centrifuged semen pellets. Men with abnormal hormonal profiles, genetic abnormalities or genitourinary anomalies suggestive of obstructive pathology were excluded. Couples with known female factor infertility were excluded. ICSI was done using mature MII oocytes with good morphology. The pronuclear formation was assessed at 17 ± 1 hours following injection. Embryo quality was assessed on day 3 (67 ± 2 hours) and day 5. Positive clinical pregnancy was considered upon finding of gestational sac(s) and fetal pulsation by trans-vaginal US, 15 days after BHCG assessment. Results were presented as mean \pm standard deviation (SD) for continuous variables and frequency and percentage (%) for categorical variables. P -value < 0.05 was significant.

Results: Men's age was 37.8 ± 5.4 years in group 1 and 34.5 ± 7.5 years in group 2 ($P = 0.07$). Female partner's age was 27.9 ± 5 years in group 1 as compared to 26.3 ± 3.7 years in group 2 ($P = 0.35$). Out of the 22 patients with varicocele, 12 (54.5%) had grade 3 and 10 (45.5%) had grade 2. Mean \pm SD of number of retrieved oocytes, fertilized oocytes, good quality day 3 and day 5 embryos are shown in table 1. Clinical pregnancy was recorded in 7/22 cases (31.8%) in group 1 as compared to 12/18 (66.7%) in group 2 [OR: 0.23; 95% Confidence Interval (0.06 - 0.88); $P = 0.03$].

Conclusion: Pregnancy outcome following ICSI was significantly reduced on using cryopreserved testicular sperms from infertile men with

varicocele-associated NOA. Future research is warranted to study whether this selected category of patients would benefit from varicocele repair before recommending ICSI.

Policy of full disclosure: None

PO-01-082

GENDER REASSIGNMENT SURGERY: PRELIMINARY OUTCOMES OF THE TRAKYA UNIVERSITY HEALTH CENTER FOR MEDICAL RESEARCH AND PRACTICE



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Objective: To report the first outcomes on transsexual patients in Turkey, undergoing gender reassignment surgery (GRS), by the collaboration of plastic and urologic surgeons, of a single center.

Methods: The data of patients diagnosed with gender identity disorders, between January 2015 (start of surgery) and November 2018, who underwent female to male (FtM) and/or male to female (MtF) GRS were retrospectively analyzed. Patients were excluded if they were pseudohermaphrodites, reluctant for GRS and if their gender was not reported.

Results: A total of 58 patients referred for GRS were included. One patient was diagnosed with pseudohermaphroditism, two patients gender was not reported and eight patients were unwilling for GRS. Apart from those, 27 cases (57%) were MtF and 20 cases (43%) were FtM. For MtF cases, 27 underwent vaginoplasty, 26 of whom received breast augmentation. Top surgery (mastectomy) and phalloplasty was performed in all FtM patients, in which 10 patients received an urethral lengthening to the tip of the phallus. However, penile prosthesis implantation, in none of these patients has been performed, currently. Minor complications occurred in seven MtF patients like labial and/or pubic inscisional scars (6 patients) and meatal stenosis (one patient), which were successfully treated afterwards. Despite that, in FtM patients with urethral lengthening, complications like urethral fistula (two patients) and urethral/meatal stenosis (five patients) with more severe outcomes consisted.

Conclusion: This is the first and largest serie of GRS reported from Turkey, with a total of 47 patients, performed by a collaborative team in less than four years.

Policy of full disclosure: None

PO-01-083

PLATELET-RICH PLASMA THERAPY OF PEYRONIE'S DISEASE



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Objective: Prevalence rates of Peyronie's disease (PD) are 0.4-9%. The purpose of this study is to evaluate the effectiveness of treatment with platelet-rich plasma (PRP) injections into the lesion area of the tunica albuginea in patients with PD. Similar research with PRP + hyaluronic acid was made by Virag R. et al. in 2017 and showed positive Results.

Methods: 59 patients with PD on early stages were divided into 2 groups: first (n=32) overcame intralesional PRP injections and the second (n=27) intralesional injections of sodium chloride 0.9%. We evaluated the curvature angle changes, plaque size, plaque softness, erectile function (IIEF-5), pain presence using ultrasound and questionnaires. F-test was used for statistical analysis.

Results: Observations were made 6 months after injections. We saw the curvature angle decrease in 50% of patients from the first group and in 22.2% of patients from the second group. Plaque decreased in size in 50% and in 14.8% patients respectively. 59.4% of patients achieve plaque softening comparing to

29.6% of patients from the control group. The difference in IIEF-5 scores revealed erectile function enhancement in 56.3% of patients in the researched group, whereas the percentage in the control group was significantly lower - 3.7%. Moreover, pain reduction was noticed in 84%, when the part in the second group was as low as 29.6%. All Results are statistically significant.

Conclusion: Treatment of Peyronie's disease with PRP plaque injections helps to reduce disease progression in most patients. This method has no significant side effects. More deep researches are considered to be induced regarding this topic.

Policy of full disclosure: None

PO-01-085

CORRELATION BETWEEN THE SEVERITY OF ERECTILE DYSFUNCTION AND PROSTATE SIZE IN PATIENTS WITH BENIGN PROSTATIC ENLARGEMENT



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Objective: Erectile dysfunction (ED) is persistent inability to achieve and maintain an erection for sufficient satisfactory intercourse. Lower urinary tract symptoms (LUTS) are defined as a constellation of storage, voiding and post-micturition symptoms following bladder outlet obstruction. Preservation of sexual function remains an important component of quality of life (QOL) and should be considered in the management of patients with benign prostatic enlargement (BPE). This study aimed to evaluate the link between ED, size of the prostate and symptom in patients with BPE.

Methods: By simple random sampling, patients who presented at the Urology Clinic of the University of Abuja Teaching Hospital Nigeria with BPE were assessed for the presence of ED. Three questionnaires (a proforma, the IIEF-5 and the IPSS) to objectively assess ED and LUTS. The author measured the prostate size using transrectal ultrasonography (TRUS). Data obtained were analyzed using Statistical Package for Social Sciences (SPSS) version 20.0. P-value of less than 0.05 was considered statistically significant.

Results: One hundred and seventeen male patients were enrolled for the study. Ninety patients (76.9%) had ED while twenty-seven patients (23.1%) had no ED. Patients with severe ED had the highest mean prostate volume of 122.95cm³ ± 40.16. Mean prostate volume of 85.24cm³ ± 40.23 was noted in patients who had moderate ED while a mean prostate volume of 76.42cm³ ± 26.45 and 60.35cm³ ± 21.39 were noted in patients with mild to moderate ED and mild ED respectively. Patients with no ED had a mean prostate volume of 49.75cm³ ± 15.55. P-value (0.001) was significant. Patients with severe ED had a higher mean IPSS of 23.00 ± 12.73 while patients with no ED had the lowest mean IPSS of 13.19 ± 8.05. The P-value (0.211) was not significant.

Conclusion: This study shows that erectile function has a direct relationship with prostate size. Adopting a holistic approach in the management of ED and BPE will have laudable impact on patients sexual performance.

Policy of full disclosure: None

PO-01-090

MAY A PERIOPERATIVE CHECKLIST REDUCE INFECTION RATE AFTER PENILE PROSTHESIS SURGERY?



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Objective: Postoperative penile prosthesis infection rate varies from 1 to 3%. The objective of our study is to compare the infection rate in our patients

undergoing penile prosthesis surgery, before and after implementing a specific preoperative checklist.

Methods: A total of 173 patients with erectile dysfunction who underwent penile prosthesis implantation from January 1993 to December 2018 were retrospectively reviewed. Patients were divided into two groups, group A (128 patients) were operated from 1993 to 2013, and group B (45 patients) underwent penile implant surgery after implementing our protocol in 2013, consisting on preoperative and postoperative measures as explained below. Statistical analysis was performed using t-Student and Fisher's exact test. Preoperative measures: - Negative urine culture (15 days before surgery) - Glycosylated hemoglobin below 9% in diabetic patients - Antibiotic prophylaxis 1 hour before (Vancomycin or Cefazidime + Tobramycin) Intraoperative measures: - Disposable operating room clothing - Double surgical gloves for the staff - Prosthesis to be handled only by urologist - 10 minutes hand washing for all participating staff with chlorhexidine or povidone iodine - 10 minutes washing of the patient's genital area with chlorhexidine or povidone iodine - Rifampicin plus Gentamicin solution to irrigate the corporotomies - Layered surgical wound closure using absorbable monofilament sutures - Limitation of the operating room traffic.

Results: 173 patients were included in the study. Mean age was 56 years (± 10). Main characteristics of each group are summarized in table 1. In group A, 13 patients (10,2%) presented infection of penile prosthesis, while in group B, only 1 patient (2,2%) presented this complication ($p=0,118$). **Conclusion:** After the implementation of our perioperative checklist we can observe a decrease in the absolute number of infections. Our recommendation is to maintain this protocol and evaluate the Results again when there is a larger sample size.

Policy of full disclosure: None

PO-01-091

PLATELET RICH PLASMA PENILE REJUVENATION AS A TREATMENT FOR ERECTILE DYSFUNCTION: AN UPDATE

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Objective: Platelet Rich Plasma (PRP) with its known healing and growth factors could play a role in erectile dysfunction treatment. Based on these regenerative properties we explored the efficacy and safety of using PRP for corporeal rejuvenation as a treatment for erectile dysfunction.

Methods: 267 patients suffering from organic Erectile Dysfunction received PRP intra-cavernosal injections according to an established protocol by the American cellular medicine association. TRU PRP obtained using an automatic dual spin Magellan Arterioocyte machine. The PRP had at least 4-5 times the concentration of baseline platelet count (in order to be effective). Patients with Psychogenic or Neurogenic causes were excluded from the study. Patients with grade 1 (very weak) erections, or premature ejaculation were also excluded. Patients filled in IIEF5 Questionnaire before and at least 6 weeks after treatment. GAQ and SEP3 questions were also assessed post treatment. any adverse events were recorded.

Results: Full data could be obtained on 61 patients Mean age of 43y, range (22-80). Mean follow up 11 weeks (4-59) 6 weeks median. The mean IIEF-5 score for all patients, before treatment was 12.5 (5-20) and Post treatment IIEF-5 = 17 (5-24), $p < 0.001$. 54 out of 61 patients (88,5%) reported improvement in their erection hardness (GAQ). 48 patients (78%) achieved a successful intercourse (SEP 3). The mean IIEF5 increase for those who expressed improvement was 5.2 points (from 12.5 to 17.7) $P < 0.001$ Median 4, Range 0-13 Results seem to appear about 3-4 weeks post treatment No reported adverse events in any patient.

Conclusion: Platelet rich plasma penile rejuvenation is a safe and effective treatment option for erectile dysfunction. To Achieve satisfactory Results,

High Quality PRP is required and appropriate training should be obtained before administration. Proper patient selection and counselling is necessary. Policy of full disclosure: None

PO-01-092

A STUDY OF SEXUAL AND REPRODUCTIVE DYSFUNCTIONS IN JUVENILE ONSET DIABETIC MEN

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Objective: To evaluate sexual dysfunction and fertility status in men having juvenile onset diabetes comparing them to fertile controls.

Methods: 73 male patients having juvenile onset diabetes mellitus. The study included clinical evaluation, erectile capacity scoring with IIEF-5 score, urine analysis after masturbation, conventional semen analysis and sperm hypoosmotic swelling test of 73 diabetic men and 33 fertile controls.

Results: Prevalence of erectile dysfunction (ED) was 75%, premature ejaculation was 31%, partial retrograde ejaculation was 5% and infertility was 40%. There was a significant decrease in percentage of normal sperm morphology among diabetic patients (41.37 ± 12.38) than controls (57.27 ± 8.11) ($P < 0.001$). Percentage of progressive sperm motility was significantly lower in diabetic patients (33.42 ± 13.38) than controls (54.84 ± 5.92) ($P < 0.001$). There was a significant decrease in sperm HOS % among diabetic patients (62.55 ± 11.69) in comparison to controls (77.36 ± 8.23) ($P < 0.001$). There was no significant difference in sperm concentration (in million sperm/ml) between diabetic patients (69.75 ± 62.11) and controls (74.55 ± 50.78). Similar Results were obtained on comparing between fertile and infertile diabetics.

Conclusion: Diabetic patients had increased prevalence of erectile & ejaculatory dysfunctions and infertility. They also had significantly lower normal sperm morphology, progressive sperm motility and hypoosmotic sperm swelling percentages. They had higher round cell number.

Policy of full disclosure: None

PO-01-093

SIGNIFICANCE OF VARICOCELECTOMY BY MARMAR FOR TREATMENT SECONDARY PREMATURE EJACULATION AND CHRONIC CONGESTIVE PROSTATITIS

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Objective: Varicocele is very often pathology for young men (up to 20%) which traditionally suggested can due to male infertility. Premature ejaculation (PE) - other common disease, which according to different authors suffers from 25 to 40% of men, mostly young. It's noted (ISSM congress, Lisbon, 2018) that operation varicocelectomy improves intravaginal ejaculatory latent time (IELT) in men with both pathologies but reason of it hasn't disclosed yet. We suggested that varicocele (especially bilateral) goes to venous hyperemia of prostate and chronic congestive prostatitis which can be reason of secondary premature ejaculation and decided to check it with this investigation.

Methods: In 2007-2018 in the andrological department of Kharkiv Clinical Center of Urology and Nephrology 1073 patients with premature ejaculation were examined. In this investigation, the Results of diagnosis and treatment of 289 patients with secondary PE and varicocele I-III grade were evaluated. The patients to be divided into 2 groups: Group 1 - 136 patients with diagnosed chronic prostatitis (CP), who underwent antibacterial

treatment of prostatitis according to the sensitivity of the isolated infectious agents; Group 2 consisted of 153 patients with CP and the presence of varicocele, which, in addition to antibiotic therapy, were underwent varicocelectomy - Marmara surgery;

Results: After 1 and 7 months, the effectiveness of the treatment was determined by the lengthening of the intravaginal ejaculatory latent time (IELT), the satisfaction of sexual intercourse on the Rosen scale, the number of patients satisfied with the Results of treatment. In group 1, the duration of IELT increased by 1.85 times, eradication of the disease reached 78.2%, high results were observed in the absence of complaints in 91.1% of patients, but in respect of the SPE, the efficacy was not high - only 56.4%. In the 2nd group, high eradication cure was noted - 86.9%, almost complete absence of complaints and high efficiency with respect to the SPE - 79.7%, increase in IELT - by 2.54 times.

Conclusion: 1. Varicocele (especially bilateral) is a comorbid factor of CP, causing venous hyperemia of the prostate, and may be one of the causes of SPE. 2. Operation Marmar reduces venous hyperemia of the prostate, reduces the score of IPSS, improves IELT in patients with comorbid pathology (varicocele + CP) and can be recommended for patients with secondary PE and varicocele.

Policy of full disclosure: None

PO-01-094

NOVEL REAL-TIME ULTRASOUND-GUIDED TECHNIQUE FOR INTRALESIONAL INJECTION OF XIAPEX (CCH) IN THE TREATMENT OF PEYRONIE'S DISEASE: ASSESSMENT OF EFFICACY AND ADVERSE EVENTS RATES

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Objective: Intralesional injection of collagenase clostridium histolyticum has been recommended as a non-operative therapy for Peyronie's disease (PD). Two randomized, placebo-controlled, double-blind studies (IMPRESS I&II) have shown a decrease of curvature by 34%; however, high adverse events rates (AER) of 84.2% are associated with this treatment. Aim of our study was to clarify whether the AE could be reduced by performing intraoperative ultrasound.

Methods: Patient collective involved 23 men (58.17 years (SD: 7.97), of which 22 without the need for SKAT in ED. 70% received "full-dose" Xiapex (0.9 mg vs. 0.58 mg). Case history, penile ultrasound and erect penis photography were obtained prior to treatment to document the degree of deviation. Significantly calcified plaques were excluded. To detect plaques in mm range during operation, we used high-frequency, ultrasound-guided, intralesional injection in real-time and injection of CCH with a 27 G-needle was performed after guided localization of the plaque. Following the procedure, penis-remodeling as endorsed by the manufacturer was performed. In addition, we used a penile stretching device after seven days. In total, 65 guided CCH injections were given to the collective of 23 patients.

Results: Follow-up over a 11.1 month period (SD: 7.1 m) revealed no severe AEs. Seven AEs were reported in five patients. These comprised two penile swellings, one superficial hematoma (remission in fewer than three days), three times penile pain (less than 24 hours) and one ecchymosis; no AEs in the remaining 18 patients. Thus, patient-related AEs rates were lowered to 21.7% and injection-related AEs to 10.8%. Subjective therapeutic success was achieved in 15/23 patients (65%), the remaining 8 patients didn't report satisfactory Results.

Conclusion: Combining ultrasound-guided intralesional CCH injection in a stretched penis and post-procedure modeling lowers the AER significantly,



while also improving subjective outcome for patients with PD. A full-dose application does not increase the AER.

Policy of full disclosure: None

PO-01-095

EDUCATIONAL INTERVENTION FOR MEDICAL STUDENTS

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Objective: Sexual health is an entirety of physical, mental and social well-being. Given the complexity of sexual health it should be approached as such. The latter is lacking in the medical curriculum where it is dealt as a clinical or psychological matter, without much interconnection. We organised an annual medical conference covering the topics of reproductive and sexual health. Our hypothesis is that the programme we introduced offered a broad approach towards reproductive and sexual health with an impact on the increased knowledge of the participants (>60% passing rate). Our second hypothesis is that there is a significant correlation between the fractions of medical student attendees at the conference and the passing rate of the final examination.

Methods: The programme introduced 3 conferences open to the general public lectured by professors of our institution and other professionals in associated fields. The events extensively discussed the infection with HPV (2015), breast cancer (2016) and sexual dysfunctions (2018). Afterwards a test was given out to assess the knowledge of the participants. We statistically analysed the Results in order to assess the quality of our educational intervention.

Results: All of our participants undertook a standardised test which was composed by our lecturers. To pass the test participants had to achieve 60% and have an 80% attendance rate. That was achieved by 68.5% of attendees. Among the participants (total: 1019) there were 71.7% medical students. All of the statistical data is accessible in the attachment.

Conclusion: The Results show that both hypotheses were correct, proving the effectiveness of the educational intervention. Given the fact that the conference was voluntary, the participants were highly motivated. A correlation between the passing rate and the percentage of medical student attendees was also shown (Graph 1). This shows that our campaign was successfully aimed at medical students and achieved the desired results.

Policy of full disclosure: None

PO-01-096

LOW INTENSITY ELECTROMAGNETIC SHOCK WAVE TREATMENT IN ERECTILE DYSFUNCTION: OUR EXPERIENCE ON 442 PATIENTS

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Objective: In this paper we want to check the feasibility and efficacy of LISWT in ED patients

Methods: in the timeframe between April 2015 and September 2018 we treated for ED 442 pts of which 381 for vasculogeni ED and 61 fo ED following radical prostatectomy . 40 nerve sparing radica prostatectomy(NSRP) and 21 non nerve sparing radical prostatectomy(NNSRP) for prostatic cancer ,in this group 10 pts received adjuvant radiotherapy for positive surgical margins. The LISWT protocol we used was 4 sessions (once a week) in one month in vasculogenic ED pts and 6 sessions (once a week)in in ED post radical prostatectomy patients with a linear probe at an energy level of 0.09 mj/cm2. Everytime we started a treatment the psa was <0.03



and there remained afterward. The efficacy of the treatment was validated by administration of IIEF test and GEQ test

Results: in 442 pts treated with LISWT 276 improved their performances (62%) with or without the help of medications (Pde5 inhibitors or alprostadil). The IIEF was improved by 50% with an average increase from 12 to 18. Of the 381 vasculogenic ED 254 had an improvement of their performance (65%). of these patients, 177 were responder to PDE5 and they got rid of medications. 77 were non responders to PDE5 or alprostadil and became responders to these drugs. Of the 40 pts undergone to NSRP 17 improved their status (42%), of the other 21 NNSRP 5 (25%) improved, in this group 10 pts had adjuvant radiotreatment and none improved we had 5 patients with transitory side effects 3 testis pain 2 penile paresthesias and 1 UTI

Conclusion: since the 2010 in animal studies showed improvement in vascular supply to organs such as heart skin and corpora cavernosa of the penis. Their action is mediated by the neoangiogenesis activated by proangiogenic factors like VEGF or PGF released by the shock wave 'shear stress' performed on the endothelial cell membranes. During the last years many studies showed an increasing number of patients taking advantage of this treatment regardless of variation in LISWT setup parameters or treatment protocols so that must be considered part of the weapons store the urologist can use in the treatment of such patients. Publication of further randomized controlled trials and longer term followup will provide more evidence regarding use of LISWT for ED patients

Policy of full disclosure: None

PO-01-098

PUBLIC HEALTH INTERVENTION - RAISING AWARENESS ON HPV

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Objective: Human Papillomavirus (HPV) is the most common sexually transmitted infection (STI) in Slovenia. It is estimated that at least 50 % of sexually active people will get infected at least once in their lifetime. The infection with HPV is most common in younger adults (YA), ranging from 15 to 25 years of age. In Slovenia, HPV vaccination became the first non-mandatory vaccine to be included in the national vaccination programme in 2009. It is covered by insurance for girls in 6th grade, although only 46.4 % get vaccinated. Our working hypothesis was that the primary reason for the low vaccination rate is insufficient knowledge and that our health intervention made a statistically significant difference.

Methods: Through the programme we aimed to raise awareness among YA, through a peer-to-peer educative campaign. The topics covered were HPV transmission, vaccination and possible complications of infection. We presented a short seminar that was followed by a comprehensive survey. The participants were 61 females aged 18-27. The survey covered prior education, vaccination status and possible objections towards it. The effectiveness of the seminar was also evaluated.

Results: The Results are represented in the attachment.

Conclusion: The Results show that the prior knowledge of the participants was lacking, which is clearly shown in the attached survey in Q1 with the Likert scale. Furthermore, Q4 shows that the primary reason against vaccination was lack of information regarding the HPV vaccination. Thus, we conclude that our first hypothesis was indeed correct. Q3 showed that our result were consistent with the national vaccination rate. Our second hypothesis was tested in Q2 with a Likert scale where the participants evaluated the short seminar, presented to them beforehand. The results show that the health intervention was useful, as 98 % of participants agreed. Thus, we conclude that our second hypothesis was also correct and our campaign was successful.

Policy of full disclosure: None



PO-01-101

EPIDIDYMOVASOSTOMY: PATENCY, PREGNANCY RATE AND PREDICTIVE FACTORS FOR SUCCESS IN 109 PATIENTS OVER A DECADE

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Objective: This study aims to assess, and identify predictive factors for, the patency and pregnancy rates in patients with obstructive azoospermia(OA) following microsurgical epididymovasostomy (EDV).

Methods: We retrospectively analysed data on 129 infertile men diagnosed with OA, who underwent EDV over a ten year period at a tertiary referral centre. Complete follow up data including semen analyses, pregnancy and patency rate was analysed in 109 patients. The patient and partner's age, and cause of azoospermia was also noted. EDV was performed using an end to side anastomosis, with or without intussusception. Data collection on intra- and post-operative parameters concentrated on microsurgical anastomotic technique, evidence of spermatogenesis in aspirated epididymal fluid (none, immotile, motile), and level of epididymal anastomosis (head, body, tail). Patency rate (sperm concentration at least 0.1x10⁶ or natural conception), pregnancy and live births rate (total number of live births) and surgeon experience was also collected.

Results: The median ages of patients and their partners were 39 ± 8.3 years and 34 ± 5.4 years respectively. The aetiology of obstruction included idiopathic (37.6%), post vasectomy (26.6%), iatrogenic (3.7%), and trauma (3.7%). Microsurgical end to side anastomosis was performed in 64.2% of cases, with 28.4% of patients undergoing end to side intussusception. The most common level of anastomoses (77%) was at the level of the epididymal body, followed by 20.2% at the level of the tail and 13.8% at the head. Intraoperative aspiration of the epididymal fluid demonstrated motile and immotile sperm in 45.9% (n=50), and 40.4% (n=44) of cases respectively, with absence of sperm in 6.4% (n=7). Patients underwent unilateral (66%) or bilateral 36.7% EDV. The majority of procedures (57.8%) were carried out by a surgeon performing >10 EDV procedures per year. There were n=6 conservatively managed complications including haematoma and infection. The patency and birth rate was 56% (n=61) and 12.5% (n=13) respectively, over a 15 month follow up period.

Conclusion: The majority of patients develop patency within 3 months of surgical intervention (54.7%). Presence of motile sperm in the intraoperative epididymal fluid correlates positively to future patency rate (p=0.023). Age of the patient, cause of obstruction, laterality, microsurgical technique and level of anastomosis did not affect patency rate (p>0.1). Patients less than 35 years of age are more likely to conceive after EDV (p=0.018). EDV remains a valuable reconstructive option for patients with male infertility. Patients must be individually counselled regarding success rates taking into account the above mentioned variable factors.

Policy of full disclosure: None

PO-01-102

EVALUATION OF LINEAR SHOCK WAVE THERAPY IN PATIENTS WITH VASCOGENIC ERECTILE DYSFUNCTION IN THE SLOVENIAN POPULATION

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Objective: Linear shock wave therapy (LSWT) has been proposed as an effective treatment option for vasculogenic erectile dysfunction (ED). Our aim was to assess the effectiveness of treatment among the Slovenian male population.



Methods: With LSWT we treated 88 patients with clinically determined vascular ED and no history of prostate surgery, androgen therapy, pelvic radiation, haematologic disease, penile curvature or venous ED. Their average age was 61 (34-93) years. Firstly, the patients were examined and the International index of erectile function (IIEF-15), Sexual Encounter Profile (SEP) and Global Assessment Questions (GAQ) scores were assessed. After that, they underwent 4 weekly LSWT sessions with RENOVA. We applied 1600 shockwaves on each crura and 900 shockwaves on each cavernosa with an energy intensity of 0.09 mJ/mm². Each session lasted approximately 20 minutes. Currently, we are evaluating the IIEF-15, SEP and GAQ scores, which were collected before the treatment, 1 month and 3 months after the last session.

Results: Before the first session, the average IIEF-15 score was 32.33 (14.00-52.00). 54.5% of patients stated that morning erections improved in quality and quantity already before the end of the therapy. Preliminary SEP and GAQ scores after LSWT are showing improvement of the ED. This is still an ongoing study. According to the literature, we are expecting a positive association between IIEF-15, SEP and GAQ scores before and after the therapy.

Conclusion: LSWT is a safe, convenient and non-invasive method. There were no side effects during the therapy in our group of patients. Our preliminary Results suggest that LSWT is a promising method for the treatment of vasculogenic, non-venous ED. However, additional angiography or penile Doppler ultrasonography before and after the LSWT treatment would give objective data.

Policy of full disclosure: None

PO-01-103

GENDER DIFFERENCES IN THE RELATIONSHIPS AMONG HOMOPHOBIA, ATTACHMENT STYLES?

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Objective: Homophobia is the stigma based on sexual orientation and gender identity. This study aims to establish a relationship between homophobia and attachment style in a gender perspective.

Methods: We recruited a convenience sample composed by 186 subjects (females=112; males=74) and we administered them a psychometric protocol. We invited the individuals to compile a socio-demographic questionnaire, the Attachment Style Questionnaire (ASQ) to assess relational patterns and the Homophobia Scale (HS) to evaluate the homophobia level in each individual. This scale is composed by 25 items and three factors linked homophobia: F1 (behavior/ negative affect), F2 (affect/ behavioral aggression) and F3 (negative cognition).

Results: Males revealed a higher attitude to homophobia compared to females (males=24.32±2.065 vs. females 17.30±1.37; p<0.05). In the male sample HS correlates with discomfort with closeness (r=0.332; p<0.05) and relationship as secondary (r= 0.350; p<0.05). Moreover, a relationship between masculinity traits and total score of HS, was found only in males (r=.233; p<0.05). In a reverse manner, in female group HS negatively correlates with preoccupation with relationships (r=-0.231; p=0.05). Regression analysis confirmed the negative relationship between preoccupation in relationships and HS (β = -0.296; p<0.05) in females, and in male sample the correlation between HS and relationship as secondary (β = 0.31; p=0.05).

Conclusion: This study demonstrates the gender difference in homophobic attitude, in particular confirms the strong relation between insecure attachment style and homophobia. This relation is particularly strong in male sample. We suppose that an insecure attachment style is a factor to take

into consideration when we treat and prevent the homophobic attitude, especially in males.

Policy of full disclosure: None

PO-01-104

GP'S APPROACH TO THE CHOICE OF A MEDICAL SPECIALIST FOR THE TREATMENT OF PATIENTS WITH ERECTILE DYSFUNCTION IN BULGARIA

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Objective: The aim of the study is to identify which medical specialists may be required to join the team for the treatment of ED patients in Bulgaria, according to the GP's view.

Methods: A cross-sectional study was conducted in the period March 2015 to July 2016 among randomly selected GPs. A questionnaire with closed-ended questions and a list of specialties was used to evaluate the preferences of primary care doctors in Bulgaria when they need to refer ED patients to a specialist. Of the 300 GPs included in the survey, 237 returned the questionnaire. Those who were reluctant to complete the questionnaires or completed it only partially were excluded. Of the remaining 197 participants 67,5% were female. The mean (\pm SD) age of the participants was 51.0 \pm 9.6 years. Statistical analysis - descriptive statistics, χ^2 , Fisher's Exact Test, SPSS 17.0.

Results: 12 specialties were suggested. Most frequently GPs would refer their ED patients to a sexologist 79,7%; an urologist 70,1% or GP/family physician involving themselves 61,4%, followed by a psychologist 55,8% and a psychiatrist 50,8%. Specialist in sexual medicine (SM) is in the middle -33,5% between endocrinologist 35,5% and a vascular diseases specialist, such as a cardiologist 26,9%. Men are significantly twice more likely to exclude the sexologist from the team, compared to women. Female doctors are more likely to include a psychologist in the team.

Conclusion: The Results of the survey, which is part of a PhD thesis, indicate that GPs traditionally associated ED problem primarily with psychological factors, rather than on somatic ones. GPs are willing to refer to a SM specialist, despite the fact that SM is still not well recognized as a separate specialty, and there are still very few SM specialists in Bulgaria. Most GPs recognize themselves as specialists, able to take part in the treatment of ED patients.

Policy of full disclosure: None

PO-01-105

132 MONTHS OF PENILE CANCER: MANAGEMENT, EVOLUTION AND HPV. A SINGLE CENTRE RETROSPECTIVE ANALYSIS

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Objective: Penile cancer in developed countries is a rare entity with a great variety of histopathological subtypes described in the literature. Nevertheless, there is a growing interest in the association of human papillomavirus (HPV) and squamous cell carcinoma of the penis (SCCP). Aim: to review 11 years of management of penile cancer in a tertiary care center and its association with HPV.

Methods: From January 2008 to December 2018, patients with penile cancer diagnosed and treated in our center were retrospectively analyzed. Known risks factors as tobacco, phimosis or HPV were studied. Biopsy was performed prior to intervention in all cases. Management and follow-up was done in adherence to the EAU guidelines on penile cancer.

Results: A total of 16 male patients, between 56 and 91 years old at the time of diagnosis were diagnosed with cancer in the penis: 1 case of melanoma, 1 case of prostate cancer invading the corpora cavernosa and 14 with SCCP. 7 were previously circumcised and 7 were active smokers. The glans was the most frequent initial localization (56.25%). HPV was positive in all the checked cases, all subtype 16. Local excision was performed successfully in 4 cases, 4 were treated by doing glansectomy, 4 partial penectomies and 3 underwent amputation. Radical inguinal lymphadenectomy was done in 5 cases (pT2 or more) and pelvic lymphadenectomy in 3. 3 patients received adjuvant chemotherapy, 1 death due to carcinoma progression. Recurrence was seen in 2 patients (58 and 14 months, respectively). The average survival in stage pT2 or more was 14 months (5 to 29) to date.

Conclusion: In our sample of male patients diagnosed with cancer in the penis, the histological grade and the T-category at diagnosis were key in the therapeutic decision and the evolution. Early consultation and intervention from the first symptoms are decisive in the survival of these patients. Late recurrences showed the importance of long term follow-up for an early intervention with curative intent. HPV association with SCCP seems more than proven, raising the question of systematic vaccination in male children as it is done already in girls.

Policy of full disclosure: None

PO-01-106

PENILE CURVATURE CORRECTION WITH AUTOLOGOUS FORESKIN GRAFT

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Objective: To show our experience in penile curvatures corrected by grafting corporoplasty using preputial skin graft along with corpora plication.

Methods: From January 2017 to October 2018, 4 patients with stabilized severe penile curvatures for almost 12 months were treated. No erectile dysfunction was previously reported in any case. Physical examination along with injection-induced erection to evidence the penile curvatures were performed in all cases. Surgical technique consisted of a subcoronal incision and penile degloving, localization of the fibrotic plaque/tissue defect and a H-shaped resection of a small part of the albuginea in the area was done, followed by circumcision to obtain a foreskin graft which was prepared prior to its suture on the resected area with a continuous 4/0 PDS suture. A new artificial erection to check the good position of the graft was performed. Additional curvatures were corrected by plication techniques. A vesical catheter was placed at the end of the procedure. After 3 days, patients were discharge from hospital.

Results: Patients were evaluated 10 days after hospital discharge. Graft area showed a good aspect and it was not painful in all cases. Patients expressed good erections but in 1 case still curvature was presented, lower than the previous (20 degrees). After 12 months of follow up, patients described sexual intercourse as much more comfortable and without pain.

Conclusion: Penile curvature is a relatively common disease. Multiple surgical techniques have been described to date but none of them clearly preferable than the others. Grafting corporoplasty is one of them. Many types of grafts have been used (autologous grafts, allografts, xenografts, synthetic grafts). Preputial skin graft is a good quality graft, inexpensive and located in the area of surgery, besides complications are scarce with this technique and has a total biocompatibility.

Policy of full disclosure: None

PO-01-111

SEXUAL MEDICINE EDUCATION IN SLOVENIA: A STUDENT'S VIEW

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Objective: Sexual medicine is not represented as a single subject in the curriculum of a medical school in Ljubljana, Slovenia. As such, the core topics are fragmented throughout six years of medical studies. The aim of this abstract is to compare the content of the medical school's curriculum with the European Society of Sexual Medicine (ESSM) Manual.

Methods: A review of the curriculum and its subject was performed with the topics and course work hours noted. An overview of ESSM Manual and its categories was carried out. A comparison between the two was made in order to identify if the curriculum follows the topics from the ESSM Manual.

Results: The comparison revealed that the curriculum covers the ESSM topics to a large extent. The in-depth analysis of topics and course hours can be viewed in the table. However, there are a few exceptions. Subject Physiology incorporates endocrinology of sex hormones and physiology of the menstrual cycle, but there is nothing on the physiology of sexual arousal. Furthermore, students aren't taught how to take sexual history or how to approach patients who might have problems with sexuality due to other diseases or conditions (e.g. erectile dysfunction in diabetes, sexuality and the elderly). Overall, sexual medicine topics are distributed among other specialties, e.g., Gynecology or Psychiatry, as this is standard practice in medical schools across Europe. There is no single subject that would view the specialty of sexual medicine as wholesome.

Conclusion: The school's current curriculum covers the topics of ESSM Manual fairly well. There are some areas lacking depth of the subject of sexual medicine. The study body should be consulted regarding the sufficiency of sexual medicine knowledge acquired during their academic years and act accordingly, perhaps adding a student-selected subject for those interested in expanding and strengthening the knowledge of sexual medicine.

PO-01-112

HYALURONIC ACID AND CHONDROITIN SULFATE, ALONE OR IN COMBINATION, EFFICIENTLY COUNTERACT INDUCED BLADDER CELLS DAMAGE AND INFLAMMATION

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Objective: Glycosaminoglycan (GAG) layer replenishment is a cornerstone in the therapy of interstitial cystitis (IC). During the last years this approach has proven to be effective also in radiation induced cystitis and recurrent urinary tract infections (UTIs). There is a broad scientific consensus that the pathological conditions related to all these different form of cystitis may originate from a defect in the integrity of the bladder lining representing the incipit of the inflammatory cascade which involves extracellular degradation. Recently, several medical devices based on GAGs have been proposed to replace the extracellular matrix and the epithelium functions. However in vitro studies have only be reported for Hyaluronic Acid (HA) to date.

Methods: In this study, TNF- α treatment was used to mimic a urothelial layer induced damage in a bladder cell based in vitro model. Highly purified fermentative HA and pharmaceutical grade Chondroitin Sulfate (CS), singularly and in blends, were evaluated for their ability to counteract damage and the pathological status of the tissue.

Results: In this respect, NF- κ B as key mediator, and in cascade IL-6 and IL-8 expression were evaluated. The effect on 3D bladder epithelium model was also investigated. The Results showed that the inflammatory status was reduced either in presence of HA and CS singularly and blended in a specific formulation, suggesting that they are suitable for the potential treatment of cystitis. The human β -

defensin (hBD-2) expression was also prompted by these treatments with its valuable function as antibacterial peptide.

Conclusion: However, when commercially available formulations (Ialuril, IBSA / Instillamed, Farco Pharma) were compared, the former formulation resulted to be more mucoadhesive than the latter which predicts a higher persistence on the bladder epithelium. On the cellular model used, both products decreased the cytokine levels, however Ialuril was significantly more effective on IL-8 reduction towards a more physiological state.

Policy of full disclosure: Prof. Schiraldi and her group declare that they have no competing interest. Prof. Schiraldi and her group have been involved in research projects funded by the Ministry of Education (MIUR) and/or Regione Campania involving industrial partners, among which are Altergon s.r.l. and IBSA that also supported Bioteknet for some inherent studies

PO-01-113

PPLICATION TECHNIQUES WITH LOCAL ANESTHESIA IN MAJOR AMBULATORY SURGERY UNITS: A SINGLE CENTER EXPERIENCE

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Objective: Surgical management of penile curvatures is a relatively easy procedure that needs very few postoperative cares. **Objective:** To evaluate the Results of plication techniques when performed in a Major Ambulatory Surgical (MAS) unit and to assess the opinion of the patients about the whole process.

Methods: 15 cases of penile curvature corrected by plication techniques after local anesthesia and hospital discharge in the same day after a few hours postoperative stay in the MAS area are described. The degree of acceptance by the patients was evaluated through a survey including issues such as postoperative pain control, assistance received by the MAS staff and their personal opinion about sleeping at home the same day of the intervention. Likewise, the discharge criteria are reviewed and possible complications derived from an early discharge are verified.

Results: No complications requiring hospital admission after discharge were reported. Analgesic control and satisfaction level were good rated and in most cases patients were grateful to avoid admission because it was a nuisance to them and their relatives.

Conclusion: MAS units reduce costs from hospital admission, have some advantages as to reduce the risk of nosocomial infections and give a great quality healthcare to patients. Plication techniques can be performed safely and effectively into a MAS program with local anesthesia, avoiding at the same time the risks of other kinds of anesthesia

PO-01-115

EXTREME PREMATURE EJACULATION IN PARKINSON'S DISEASE

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Objective: Background Premature ejaculation (PE) is a common male sexual dysfunction, causing significant distress. Sexual problems are common non-motor symptoms in Parkinson's disease (PD), mainly erectile dysfunction, PE and sexual dissatisfaction. PE has not been thoroughly described and studied in the context of PD. To present a series of male PD patients, who complain of newly acquired PE, after the onset of PD. To emphasize the sudden, rapid and severe nature of PE in these men.

Methods: We describe eight male patients with clinically diagnosed PD, who complained of their inability to control ejaculation, and were diagnosed with PE by a sex therapy specialist. We collected clinically and sexually data, including age at PD onset, history of pharmacotherapy for PD [age at levodopa and/or dopamine agonists initiation, current treatment, and levodopa and/or dopamine agonists daily dose at PE onset], the age at PE, co-existing sexual dysfunction, past and present intra vaginal ejaculatory latency time.

Results: Mean patients age: 62.6 ± 12.0 (range 45-85) years. Mean age at PD onset: 53.3 ± 12.7 (range 38-77) years. PE appeared in all cases after anti-PD treatment initiation with a mean age of 57.3 ± 12.4 years, around 4 (range 0-9) years following PD diagnosis. The characteristics of PE: all patients had an ejaculation latency of less than 2 minutes, 6 patients had an ante-portal or immediate ejaculation, occurring after short sexual stimulation. All cases reported longer ejaculation latency time, prior to anti-parkinsonian treatment initiation.

Conclusion: In this serial case series of PE in PD patients, PE was severe with an extremely short intra vaginal ejaculatory latency time, which was exceptionally disabling. We suggest that this it is related to dopaminergic agents and not to the disease per se.

Policy of full disclosure: None

PO-01-116

PERSONALITY AND TEMPERAMENTAL TRAITS OF HETEROSEXUAL AND HOMO-/BISEXUAL MEN

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Objective: Findings from previous studies have revealed that populations of men, regarding their sexual orientation, differ in personality traits structure. The aim of this study was to identify personality and temperament traits differences between heterosexual men and MSM (who find themselves homosexual or bisexual) among Polish males.

Methods: Men recruited in few Polish cities among volunteers (n=684; aged 30.80, SD=10.24) were asked to fill in questionnaire battery that consisted of NEO-FFI (Big Five personality traits), BIS/BAS (behavioral avoidance/inhibition scales as temperament description) and the socio-demographic survey. The Kruskal-Wallis and Mann-Whitney tests were used to compare particular groups.

Results: Sexual orientation of men had no impact on any of the behavioural activation subscales (drive, fun seeking and reward responsiveness). The heterosexual men obtained significantly lower scores than homosexual on behavioural inhibition scale. There were no such differences between heterosexual and bisexual, as well as homosexual and bisexual men. In regard to Big Five personality traits, heterosexual group was found to be less neurotic than homosexual; less open to experience and more conscientious in comparison to homo- and bisexual men. The only difference between homosexual and bisexual group was identified in the level of neuroticism - homosexual men obtained higher scores.

Conclusion: The Results of the study partially support findings from other research which revealed higher neuroticism and openness to experience in homosexual men, in comparison to heterosexual. An intriguing observation is higher tendency for general behavioural inhibition among homosexual men. Although it is a temperamental trait, thus more an inborn reflection of nervous system characteristics with limited influence of learning process, our observation may relate to impact of minority stress and social demand to 'live in the closet'. It is interesting, that temperament traits of bisexual men were found similar both to heterosexual and homosexual.

Policy of full disclosure: None

PO-02-001

TRANSLATION AND VALIDATION OF THE FEMALE SEXUAL FUNCTION INDEX (FSFI) IN THE SAUDI POPULATION



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Objective: Female sexual dysfunction (FSD) is a highly prevalent and often an underestimated issue in the general community that has been investigated inadequately in the Kingdom of Saudi Arabia's population. The aim of the study is to translate into Arabic language and validate the Female Sexual Function Index (FSFI) in the Saudi population.

Methods: This is a cross-sectional study, which started in April 2017 and will be for the duration of two years at the Research Center and the Urology clinic of King Faisal Specialist Hospital and Research Centre, Riyadh Saudi Arabia. The inclusion criteria is as follows: (i) Saudi; (ii) age between 16 and 60 years; (iii) married and sexually active during the past 6 months; (iv) able to give consent; and (v) able to read and understand Arabic.

Results: Phase I: Translation and content validity assessment. Out of the 220 female participants (the calculated sample size) 20 were administered with the Arabic version of the FSFI which then was evaluated for face validity through a pilot study. The Arabic version of the FSFI was prepared using the back-translation technique. The Arabic version of FSFI was presented to a panel of experts for content validity assessment. Upon reviewing the panel's comments, the authors modified wordings that were not clear, confusing, and not acceptable by the Saudi culture. Phase II: Reliability and Validity Assessment, is ongoing. The final Arabic translated and content validated version of the FSFI will be administered to the sample group of 100 female attendees of the KFSHRC Urology clinics (cases) and 100 female (controls) will be administered an online questionnaire through Rofaida's organization.

Conclusion: Research in the area of female sexuality is problematic and relatively challenging. The anticipated outcome is to succeed in validating the FSFI in the Saudi population and to encourage research that is more relevant in the future.

Policy of full disclosure: None

PO-02-002

THE IMPORTANCE OF REPRODUCTIVE AND SEXUAL EDUCATION IN WOMEN - AN OBSERVATIONAL CROSS-SECTIONAL STUDY AND COMPARISON OF TWO EDUCATIONAL SYSTEMS



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Objective: To establish the importance of Reproductive and Sexual education during mandatory basic education for women, in order to improve bodily autonomy, self-empowerment, and impact on making risky decisions.

Methods: A literature review and comparison of the educational systems of Berlin and Riga were performed, as well as a statistical analysis of the data provided by study participants in the Department of Gynecology and Obstetrics of Waldfriede hospital in Berlin, Germany and Riga Maternity Hospital in Riga, Latvia.

Results: A tendency of women with a higher education to have fewer pregnancies, in general, was found with a weak $\rho = 0.45$ ($p = 0.048$) relationship. Women with a higher finished education were furthermore less likely to have had an unplanned pregnancy with a high statistical significance and a weak relationship with $\rho = -0.44$ ($p = 0.004$). Women in the Latvian

sample group, where less likely to have unprotected intercourse due to their partner's refusal if they had a higher finished education ($\rho = -0.50$, $p = 0.025$). Further are these women more likely to have enough knowledge about their sexuality as seen with a strong linear relationship of $\rho = -0.76$ ($p = 0.000$). They also feel more comfortable in expressing their sexuality with $\rho = 0.45$ ($p = 0.047$) and in having sufficient information about female pleasure and satisfaction ($\rho = 0.44$, $p = 0.05$) if they received their education from school. The German sample group showed a weakly linear ($\rho = 0.45$, $p = 0.044$) relationship in having enough knowledge about sexuality and receiving it from school.

Conclusion: A distinct trend among both study groups can be seen in regards to how their general educational level influenced their previous and current behavior towards Reproductive and Sexual health. The higher their finished educational level, the less likely they seem to make hasty and risky decisions. The majority of women prefer school setting over a sole family member communicated reproductive and sexual education.

Policy of full disclosure: None

PO-02-003

INTERPROFESSIONAL EDUCATION TO ENHANCE INTERPROFESSIONAL COLLABORATION IN MANAGING FEMALE SEXUAL DYSFUNCTION: A SINGAPORE PERSPECTIVE



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Objective: Globally, an increasing number of healthcare settings are using Interprofessional Collaboration (IPC) to enhance healthcare delivery(2). Female sexual dysfunction is a multifactorial condition requiring biopsychosocial approach for holistic management. The multidisciplinary approach is a form of IPC, thus women with sexual dysfunction are seen by a multidisciplinary team consisting of a physician, psychologist and physiotherapist in our centre. To ensure effective collaboration between different healthcare professions, Interprofessional Education (IPE) is essential.

Methods: IPE components include exchange-based learning; which allows different professions to understand their roles and responsibilities by identifying similarities and difference in their practice (3). Practice-based learning via the clinical setting serves as a core learning process by all team members (1). Community of practice in the form of case conference promotes systematic, longitudinal and incremental learning (4). Formal and informal team learning approach ensures a consistent basic knowledge domain(3).

Results: IPC improves patient satisfaction in the management of female sexual dysfunction and helps in formulation of a standardized plan of care. Team members have also reported satisfaction in collaborative patient management. Practice-based learning and community of practice, helps to promote communication between team members and serves as a reflective practice in enhancing patient care (3). Exchange-based learning also improves awareness of female sexual dysfunction among other medical professions thus increasing referrals and clinic output.

Conclusion: IPC promotes efficient patient care and enhance patient's experience in the management of female sexual dysfunction (4). IPE is key to the success of IPC. Good IPE programmes promotes collaborative relationship and team work among different healthcare professions (4). Future consideration for expansion of IPE activities includes 1) a E-based learning to impart knowledge to clinical staff and 2) Blended-learning techniques (knowledge and simulation-based) for students in different health disciplines to learn about female sexual dysfunction and IPC.

Policy of full disclosure: None

PO-02-006

EVALUATION OF SEXUAL FUNCTIONS OF FEMALE PATIENTS USING SYSTEMIC RETINOID FOR ACNE VULGARIS TREATMENT



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Objective: Acne vulgaris is a common skin disease, especially in young adults. The retinoids used in the treatment of acne are the class of chemicals that consist of vitamin A and all its derivatives. Although many side effects related to retinoid treatment have been specified in the literature, there is no study evaluating the effect of this treatment on sexual function, especially in women. The aim of this study is to investigate the effect of retinoid, which is used systemically in the treatment of acne vulgaris, on female sexual functions.

Methods: Between January 2018 and June 2018, 46 women with acne vulgaris diagnosis and systemic retinoid treatment were included in the study. Medical and sexual history of the patients and physical examination findings were recorded. Global Acne Grading Scale (GAGS) was used to determine the degree of acne. Systemic retinoid therapy was administered (0.5-1.0 mg/kg/day). In each patient, the Female Sexual Function Index (FSFI) and the BECK depression scale were filled before and 2 months after retinoid treatment. Patients with regular sexual intercourse, hormonal disorders, chronic SSRI use and pelvic surgery / radiotherapy history were excluded from the study.

Results: The mean age of the patients was 29.48 ± 4.62 (21-42). The mean body mass index was 22.22 ± 3.06 (18.21-28.58). The mean duration of onset of acne vulgaris is 24 ± 17.07 months. Patients had sexual intercourse 2.22 ± 0.73 (1-4) times a week. The mean GAGS score was 18.96 ± 6.8 . There was no significant difference in pre-treatment and post-treatment BECK scores of the patients ($p > 0.05$). FSFI scores after treatment were found to be statistically significantly lower in all sub-segments and total scores compared to pre-treatment (Table-1) ($p < 0.001$). Patients showed the most decrease in lubrication and pain subscale scores.

Conclusion: Retinoid and its derivatives affect female sexual function negatively when used systemically. This effect is mostly in all sub-dimensions especially lubrication and pain.

Policy of full disclosure: None

PO-02-007

SEXUALITY IN THE COUPLE COPING WITH BREAST CANCER



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Objective: Sexual problems are a common outcome of breast cancer and its treatment for both patients and their partners. Despite this, there is a distinct lack of research that examines sexuality after cancer. The aim of this paper is to review research on couple sexuality and breast cancer.

Methods: The author has consulted the main scientific search engines from the years 2001 to 2018.

Results: The importance that the couple put on the sexual relationship is strongly influential in determining if and when sex after surgery would be resumed and the coping style toward sexual changes. Partners who were involved in the decision process for treatment were more satisfied with their sexual life. These findings emphasize the need of involving partners in decision-making. In order to deal with sexual issues, it is important to prepare a secure environment in the hospital to discuss sexual problems with patients and their partners.

Conclusion: Health care providers (HCP) need to understand the treatments' sexual impact and basic sex counseling techniques. It is desirable to

train HCP to take an approach adaptable to the couples' situations rather than applying uniform standards. It is also urgent to train more sex therapists on issues relating to cancer patients' sexuality so that HCP can turn to them for advice. HCP can play a key role in ameliorating concerns surrounding sexuality and intimacy after breast cancer, offering specific suggestions related to sexual positioning or the use of sexual enhancement products, concrete suggestions about how to adjust to these changes and how to expand their sexual repertoire, as well as information that may allow partners to help women adapt to the changes. When sexual problems emerge, individualized couple interventions should include education about diagnosis and treatment, promotion of mutual support and coping, and specific sex therapy techniques such as sensate focus exercises.

Policy of full disclosure: None

PO-02-008

SUPRAPUBIC PEDICLED PHALLOPLASTY IN FEMALES WITH GENDER DYSPHORIA: A MULTICENTRIC RETROSPECTIVE COHORT ANALYSIS



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Objective: To report the surgical outcomes and the patient's reported outcomes (PRO's) after a suprapubic pedicled phalloplasty (SPP) in females with gender dysphoria

Methods: From November 2008 to August 2018 a consecutive series of female-to-male GD patients underwent a sex reassignment surgery (SRS) in two tertiary referral centers. Patients were offered the choice between three different techniques: metoidioplasty, radial artery based forearm free-flap and SPP. A retrospective analysis focused on patients underwent a SPP was conducted extrapolating data from the clinical records. SPP was conducted as a multistage procedure, consisting in 3 steps a) TPC b) glans sculpting, urethral reconstruction and scrotoplasty c) penile prosthesis implantation. A descriptive analysis of the surgical outcomes and PRO's was conducted. Statistical analysis was performed using STATA version 12.0 for Mac package. Duration of surgery, intra and postoperative complications and the hospital stay were selected as variables for the surgical outcomes. PRO's were extrapolated from a 4-item "ad hoc" created questionnaire administered through a telephone interview at 1 year follow-up.

Results: A total of 34 patients were enrolled in the present study. The median age was 45 (IQR 35-49). The median BMI was 24 (IQR 22-26). The median follow-up was 88 months (IQR 16-102). The median operative time resulted 135 (IQR 120-215). A defatting of the flap was necessary in 27 patients (79.4%) as well as an umbilicus caudal repositioning which was needed in 10 patients (29.4%). Lateral rotational flaps to close the abdominal defect were required in 24 patients (70.5%) whereas a direct closure of the abdominal defect was possible in the remainders. The median size of the flap turned out to be: length of 13 cm (IQR 12-13) and width of 12 cm (IQR 11-12). The median hospital stay was 5 days (IQR 4-6). Focusing on major postoperative complications a partial necrosis of phallus was detected in two cases (5.8 %). Additionally, two cases of seroma formation with wound dehiscence (5.8%) were detected. 18 patients completed the 3 stages of surgery and were therefore considered for PRO's analysis. 89 % of patients declared to be fully satisfied of the TPC. 83% would recommend the procedure to someone else and 89% would undergo the same procedure again. 66% of patients could achieve an orgasm during sexual penetrative intercourse.

Conclusion: The SPP represents an acceptable option for TPC, with a low incidence of major complications and without the need of disfiguring a donor skin site.

Policy of full disclosure: None

PO-02-009

STUDY ON THE EFFECT OF NON-AROMATIZABLE ANDROGEN DIHYDROTESTOSTERONE (DHT) ON THE SEXUAL BEHAVIOR OF OVARECTOMIZED FEMALE RATS PRIMED WITH ESTRADIOL

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Objective: To clarify the mechanisms of Testosterone facilitation of female sexual desire by assessing the effect of a non-aromatizable androgen (Dihydrotestosterone, DHT) in a validated animal model.

Methods: N=48 Long-Evans female rats were bilaterally ovariectomized (OVX) and made sexually receptive by subcutaneous injection of 10 µg Estradiol Benzoate (EB) 48 h, and 500 µg progesterone (P) 4 h prior to each of 5 sexual training sessions. After a washout period, they were randomly assigned to one of 4 regimens: oil (O) + O (n = 12), 10 mcg EB + 500 mcg P (n = 12), O + 500 mcg DHT (n = 12) and 10 mcg EB + 500 mcg DHT (n = 12). Subsequently, they were tested at 8-day intervals for 4 tests. EB was administered 48 h, while P and DHT 4 h, prior to test sessions. Behavioral testing was performed in unilevel pacing chambers bisected by a clear Plexiglas® divider with 4 square holes into the bottom, adjusted to the size of the female in order to allow her to cross to the male's compartment. The frequencies of partial (hops and darts) and full solicitations were analyzed combined and considered as the main outcome measure. Moreover, indexes of sexual receptivity were examined, specifically: lordosis magnitudes, scored on a 3-point scale and presented as a mean lordosis rating (LR = sum of points/[mounts + intromissions + ejaculations]), and lordosis quotients (LQ), calculated as total number of lordosis reflexes/[mounts + intromissions + ejaculations]. Mounts, intromissions and ejaculations received from the male and females rejection responses were also coded.

Results: The EB + DHT group displayed significantly more appetitive behaviors compared to both oil control groups (O + O, U = 120.00, p < 0.0001, r = 0.85 O + DHT, U = 120.00, p < 0.0001, r = 0.84), whereas no difference was observed between females treated with EB + DHT and EB + P (U = 37.00, p = 0.14, r = 0.32). The LR was higher in the EB + DHT compared to Oil + Oil (U = 144.00, p < 0.0001, r = 0.88) and O + DHT (U = 144.00, p < 0.001, r = 0.85), whereas no significant difference was detected between the EB + DHT and the EB + P groups (U = 57.00, p = 0.41, r = 0.18). As for LQ, a tendency for EB + DHT to increase LQ when compared to Oil + Oil (U = 24.00, p = 0.02, r = 0.58) was observed. The effect on LQ displayed in the EB + DHT group was not significantly



different from the O + DHT group (U = 95.00, p = 0.08, r = 0.37) however, it was lower when compared to EB + P (U = 25.00, p = 0.02, r = 0.49). Females treated with EB+DHT received more mounts, intromissions and ejaculation than those treated with Oil + Oil (p < 0.0001) and with O + DHT (p < 0.0001), whereas they did not differ from E + P (p = 0.22, 0.19 and 0.11 for mounts, intromissions and ejaculation, respectively). No differences were detected in the number of rejection responses.

Conclusion: The administration of DHT in EB primed OVX Long-Evans rats enhances sexual behavior measures, including appetitive behaviors, analogous to sexual interest and initiation in women. Our data support an independent role of androgens in the facilitation of female sexual desire.

Policy of full disclosure: None

PO-02-011

A CASE REPORT OF SUCCESSFUL TEAM APPROACH TREATMENT OF VAGINISMUS

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Objective: Vaginismus is the persistent or recurrent difficulties of woman to allow vaginal entry of a penis, a finger and/or any object, despite the women's expressed wish to do so. There is often phobic avoidance and anticipation/fear of pain. Structural or other physical abnormalities must be ruled out/addressed. The purpose of the case report of vaginismus is to show the effectivity of multimodal, multidisciplinary approach therapy used by a gynaecological sexologist and a psychotherapist sexologist.

Methods: A 31-year old patient came with severe distress because of unconsumed marriage. She has been married for ten years. Sexual intercourse before the wedding is prohibited in her culture. We used the biopsychosocial approach of vaginismus, which begins with a clinical interview focused on a specific sexual problem and possible etiological factors. On the first session the Q tip test was impossible. The touch made her cry and she felt a pain in the belly. The gynaecological assessment was based on: an educative gynaeco-sexological examination with a hand mirror, Q tip test, testing pelvic floor muscles, giving information about vaginismus. Pelvic floor massage in addition to cognitive education, relaxation training, self-insertion exercises and sensuality training are included in the treatment program. In clinical psychiatric assessment comorbid psychiatric disorders (posttraumatic stress disorder, mixed anxiety and depression) were diagnosed. She needed treatment with antidepressants.

Results: She had 10 gynaecological sessions, 16 psychiatric sessions and 6 couple sex therapy sessions over the period of 30 months. By the end of the therapy she could relax the pelvic floor muscles and had a successful penetrative sexual intercourse. Their sexual repertoire expanded. The Female Sexual Function Index score improved from 7.2 to 24.8.

Conclusion: In our case multidisciplinary cognitive behavioural psychosexual therapy proved to be a good choice for treating vaginismus complicated with comorbid psychiatric disorders.

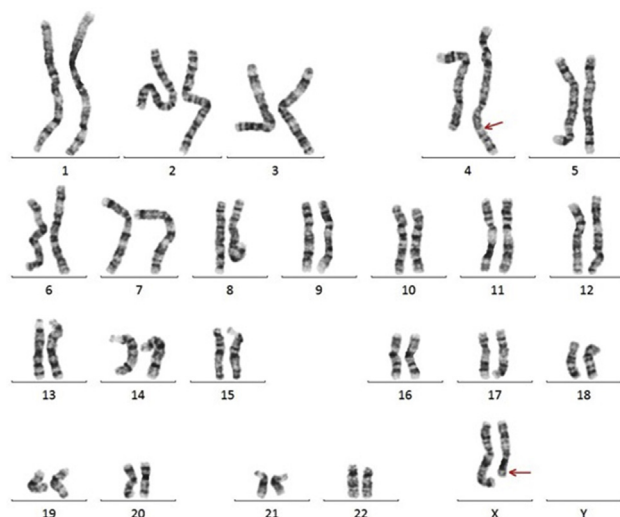
Policy of full disclosure: None

PO-02-012

FREQUENCY OF FEMALE ORGASM THROUGH SEXUAL ACTIVITY

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Objective: Reaching an orgasm through sexual activity is quite difficult which a result of several things be. The aim of this study was to analyze the roles of factors such as the age, education, smoking and condom use in a capacity to experience orgasms.



Methods: The current study utilized a convenience sample of 710 sexually active women who completed an onsite survey at the University and Clinical Center of Kosovo in Prishtina. Participants, attending those settings during pregnancy, indicated how frequently they reached orgasm through sexual intercourse. Descriptive and regression analyses with a few chi-square tests were used to examine relevant factors.

Results: Never reached orgasm during sexual intercourse are 13.7%, sometimes 41.4% and often 44.9%. Women at age less than 18 reached never orgasm in 2.9% of cases while 60% of them had often or very often orgasm. Those at age 18-25 reached never orgasm in 12% while women aged over 35 year never reached orgasm in 23.4%. The level of education show almost the same Results among participants who never reached orgasm ranged from 12.8% for those with university degrees to 15.2% of them with elementary school. The difference between smoking or not smoking women is very close 13.65 vs. 13.7%. Condom use is checked also and results are 13% for non users compared to 14.4% for users.

Conclusion: The findings indicate that women differ from one another in terms of age only while other variables are without significance differences. Policy of full disclosure: None

PO-02-015

QUALITY OF LIFE AND SEXUALITY IN DANISH WOMEN WITH LICHEN SCLEROSUS

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Objective: Lichen sclerosis is a chronic autoimmune skin disease affecting the female anogenital area and causing significant modification in the vulva leading to anatomical changes. Reported symptoms include itching, burning sensation, soreness as well as dyspareunia. This study intends to evaluate the quality of life and sexual functioning in women recently diagnosed with lichen sclerosis.

Methods: This study includes 57 patients over 18 years of age. They were referred to North Denmark Regional Hospital from 1 January to 1 July 2018 and recently diagnosed with lichen sclerosis at the vulva clinic. Informed and written consent was obtained prior to participation. Female Sexual Function Index (FSFI) and Dermatology Quality of Life Index (DQLI) were fulfilled.

Results: Median age 45 years [18; 72]. The women presented low score on all FSFI scales with a mean score of 13.36, indicating worse sexual functioning with a cut off score of 26.55. The sub group evaluation scored: desire 2.18; arousal 2.15; lubrication 2.49; orgasm 2.33; satisfaction 2.64; pain 1.58. The Results from DQLI revealed a mean score of 9.09 indicating moderate effect on patient's everyday life. The mean sub scores were physical symptoms including 2.52 on feelings; 1.12 on daily activities; 1.17 on leisure; 0.09 on work and school; 3.65 on personal relationships; and 0.54 on treatment.

Conclusion: This study concludes that lichen sclerosis has a considerable influence on women's sexual functioning and on their quality of life. In addition, a cut off score below 26.55 indicates an urgent need for sexual counseling. Health care professionals have to take care of not only biological aspects, but psychological and social aspects, as well.

Policy of full disclosure: None

PO-02-016

NOMEGESTROL ACETATE/17BETA-ESTRADIOL DOES NOT NEGATIVELY ALTER THE VASCULAR RESISTANCE OF CLITORAL ARTERIES

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Objective: Recently, a monophasic combined oral contraceptive (COC) containing 1.5 mg 17-beta estradiol (E2) and 2.5 mg norgestrol acetate (NOMAC) has been developed with a 24/4 regimen. Evidence suggests that NOMAC/E2 may be a good choice for preserving sexual health in women complaining about sexual side-effects of COCs. Clitoral color Doppler ultrasound (CDU) with assessment of the pulsatility index [PI = (peak systolic flow - end-diastolic flow)/ mean maximum flow velocity], reflecting resistance to blood flow, has been proposed as an objective measurement of sexual functioning. Our aim was to evaluate, in women consulting our Outpatient Clinic for contraceptive needs, the possible changes in clitoral haemodynamic parameters after 6 months treatment with NOMAC/E2 as compared with other COCs.

Methods: In this observational, prospective pilot study, 10 premenopausal women were enrolled. Clitoral CDU was performed during the early follicular phase of the menstrual cycle at baseline and after 6 months of treatment with NOMAC/E2 (n=5) or other COCs (n=5). Peak systolic velocity (PSV) and acceleration (A) values were also recorded.

Results: 6-months NOMAC/E2 treatment did not exert any significant effect on clitoral artery vascular resistance evaluated by measurement of the PI, whereas treatment with other COCs tended to increase this parameter [+110.7% (+2.7 - +271.39)], although the change did not reach statistical significance (p=0.095). However, when comparing the change in clitoral PI between the NOMAC/E2 group and the other COCs group, we were able to observe a significant difference (U=1.00, p=0.016), which retained statistical significance even after adjusting for age. No significant differences in clitoral artery PSV and A were found pre- and post-treatment or between the two groups.

Conclusion: Our preliminary Results suggest that NOMAC/E2, differently from other COCs, does not negatively alter the vascular resistance of clitoral arteries. If confirmed, this finding may have implications in shaping contraceptive choices and acceptability.

Policy of full disclosure: None

PO-02-021

APPEARANCE ANXIETY CAN BE AN INDEPENDENT RISK FACTOR FOR FEMALE SEXUAL DYSFUNCTION

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Objective: Investigation of the relationship between the levels of appearance anxiety and female sexual function index parameters in women was aimed at the current epidemiologic survey.

Methods: Sexual active women who have a stable heterosexual relationship at least six months were the subjects of the study. Following informed consent demographic features, medical history, anthropometric measurements including body mass index (BMI), skinfold thickness (SFT) measurements from three different regions of the body (Triceps, Scapula, Abdomen) and waist circumference (WC) were obtained and recorded by the researchers. Finally, subjects were asked to fill Appearance Anxiety Inventory (AAI) to measure the severity of appearance anxiety, Female Sexual Function Index (FSFI) and Beck Depression Inventory (BDI). Among participants, Female sexual dysfunction (FSD) was termed who have below 26.50 points in FSFI total score as previously accepted. Nonparametric Spearman's correlation test and Hosmer - Lemeshow test for multivariate logistic regression analyses were used with SPSS 21.0.

Results: The data of 329 women were recruited for the study. The median age of the participants was 33 (19-52). Mean BMI was 24.5 (SD: 3.5) kg/m², WC was 74.6 (SD: 9.9) cm, SFT Triceps 24.9 (SD: 5.2) mm, SFT Scapula 19.5 (SD: 3.9) mm, SFT Triceps 32.2 (SD: 7.2) mm. As dependent variable FSD was termed in 75 (% 22.8) subjects. Correlation analyses revealed significant

negative correlations between FSFI total scores and age, WC, and all SFT measurements, AAI and BDI scores. Increased severity of appearance anxiety (OR: 1.22 CI: 1.13-1.31), the severity of depression (OR: 1.08 CI: 1.03-1.14) and increased age (OR: 1.07 CI: 1.00-1.13) have remained independent risk factors for FSD at multivariate analysis.

Conclusion: Presence and increase in appearance anxiety are associated with FSD. Further clinical structured trials are needed to clarify whether this association has causality.

Policy of full disclosure: None

PO-02-022

WHY POSITIVE SEXUAL EXPERIENCES MATTER: SEXUAL HEALTH IS ASSOCIATED WITH LOWER POSTPARTUM STRESS IN PRIMIPAROUS COUPLES

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Objective: Postpartum couples are often faced with an increase in several stressors that may place them at risk for psychological, relational, and sexual problems. One overlooked stressor during this period relates to the sexual changes experienced by postpartum couples. This study examined the association between postpartum sexual health and perceived stress in a sample of primiparous couples. We hypothesized that greater sexual health (greater sexual satisfaction, greater sexual desire, and lower distressing postpartum sexual concerns) would be associated with lower postpartum stress for the individual and for their partners.

Methods: Couples (N = 255) with a singleton child (3–12 months) completed self-report questionnaires assessing perceived stress, sexual satisfaction, sexual desire, and postpartum sexual concerns. Data were analyzed using multilevel analyses guided by the actor-partner interdependence model. **Results:** Postpartum sexual health explained 20% of the variance of mothers' perceived stress and 48% of fathers' perceived stress. Greater sexual health was associated with lower postpartum stress at individual levels for most sexual predictors and at dyadic levels for specific predictors (e.g., sexual satisfaction). In both mothers and fathers, sexual satisfaction and partner-focused sexual desire were negatively associated with perceived stress, whereas solitary sexual desire and postpartum sexual concerns were positively associated with perceived stress.

Conclusion: Findings indicate a significant contribution of sexual health to postpartum couples' experience of stress during this vulnerable period. The maintenance of positive sexual experiences across the postpartum may constitute a protective mechanism against the experience of stress. Couples' sexual health may be an important target for interventions aimed at helping postpartum couples cope with stress after childbirth. **Key Words:** couples; postpartum; sexual health; sexual satisfaction; sexual desire; postpartum sexual concerns; perceived stress

Policy of full disclosure: Funding Sources: This work was supported by the COMPETE_2020/COMPETE 2020 program (CPUP UID/PSI/00050/2013, POCI-01-0145-FEDER-0072). I.T. was supported by a PhD grant from the Portuguese Foundation for Science and Technology (SFRH/BD/131808/2017). The research was supported by a Category A operating grant from the IWK Health Centre and by an operating grant from the Canadian Institutes for Health Research awarded to N.R..

PO-02-023

INTRAVESICAL MIGRATION OF STICK FLOAT DURING SEXUAL INTERCOURSE IN A FEMALE

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Objective: The introduction of foreign bodies in the female urethra for erotic stimulation during sexual intercourse is supposed to enhance sexual satisfaction and it is not uncommon. The occurrence of intravesical migration of these objects makes it necessary to remove it shortly after insertion, since after long term permanence complications are likely to occur. To our knowledge this is the first case of documented intravesical stick float in a female.

Methods: A 47-year-old white female was referred at emergency department for migration inside the bladder of a stick float used for sexual stimulation and acute Urine retention. The ultrasound and an X-ray plate of the pelvis clearly showed the presence of a 10 cm object in length located in the bladder. A further TC scan confirmed the object placed obliquely in the bladder with suspect of bladder trauma.

Results: A cystography intraoperatively did not demonstrated bladder rupture and so a cystoscopy in spinal anaesthesia was performed but it resulted unsafe to remove the object. Hence, a cystotomy was performed. Post operative was unremarkable and the patient was discharged 7 days after the operation. The patient and her husband wanted the object back. No psychiatric disorder was documented.

Conclusion: The retrieval of foreign objects introduced through body orifices with purpose of sexual gratification is a well known urological expertise. Long term permanence leads to complications such as chronic urinary tract infection, bladder ulceration and formation of large size calculi, which can be found in patients with psychiatric disorders. Sexual gratification in females though the insertion of urethral objects is a growing practice, as demonstrated by the broad proposal of such instruments on the web. Therefore, the occurrence of accidental intravesical displacement of such kind of foreign body is increasing and the Urologists must be aware of this possibility.

Policy of full disclosure: None

PO-02-024

THE EFFECT OF BREAST CANCER IN FEMALE SEXUAL HEALTH: A PROSPECTIVE COHORT STUDY

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Objective: Psychological, anatomical and hormonal changes, as a result of diagnosis and treatment of breast cancer, may affect female sexuality. These changes are most pronounced in women of reproductive age. The purpose of the study is to record the changes in women's sexual response cycle following breast cancer treatment

Methods: Sixty seven breast cancer patients (group A) and 33 with benign breast lesions (group 0) were studied prospectively. Sexuality was studied by using a self-completed questionnaire (SFQ) and by measuring the hormones: testosterone, estrogen and cortisol. The blood collection and the completion of the questionnaire performed before the surgery and a year later.

Results: Of the 67 breast cancer patients, 48% were of reproductive age, with mean age of 39 years. The scales of sexual desire and stimulation were decreased in group A (-0.6 ± 2.2) and (-1.2 ± 2.5) and increased in the control group (1.1 ± 2.1) (P: 0.001) and (0.5 ± 2.5) (P: 0.001) respectively. The scale for the orgasm phase recorded the same change in Group A -1.2 ± 2.6 and in control group of 0.5 ± 2.8 (P: 0.006). Testosterone levels did not change before and after surgery but were significantly lower than the control group (39.1 ± 13.9 and 54.4 ± 16.7 respectively)

Conclusion: Sexual desire, stimulation and the phase of orgasm seem to be affected by the diagnosis and treatment of breast cancer. The main reason for this change is the diagnosis of cancer and the change in body image. Medicinal menopause also plays an important role. The change in testosterone seems to affect sexual desire but its exact role is very difficult to be estimated.

Policy of full disclosure: None