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25 Year Anniversary

ESSM TODAY

European Society for Sexual Medicine

Contents

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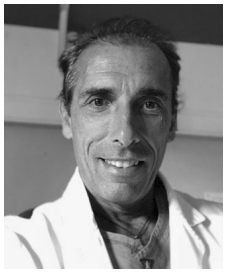
Welcome address



C. Bettocchi,
ESSM President

F. Fusco
ESSM Today Editor

Dear ESSM members, dear friends,

we were lucky enough to celebrate our annual meeting in Prague, last January, just before the Covid-19 pandemic spread.

The meeting was a huge success and we are sure that all participants were more than satisfied with the high scientific quality and the enthusiastic social interaction they could enjoy in those happy days. Unfortunately, the following months have been very tough and our personal daily life has undergone several necessary modifications. The same has been for the ESSM, and many projects and activities of our society have been revised accordingly. The planned 2020 edition of the School of sexual medicine has been postponed to April 9–18, 2021. Similarly, the 2021 ESSM annual meeting, to be held in Rotterdam, has been postponed to 2022, when we are sure the condition will consent a wonderful experience in the traditional face-to-face meeting. However, ESSM never stops working and producing culture and science. We are proud to offer to all our members a 2021 virtual meeting that will be held next February, whose purpose will be to share the latest relevant news in the field of sexual medicine, beyond the sad physical barriers that have grown so unexpectedly and fast. In the meantime, a series of webinars has been promoted to present and discuss our new "ESSM statements", and others will come till the end of the year. We are also very close to launch the ESSM Academy of Genital Surgery and a new ESSM Textbook of Urogenital Prosthetic Surgery is expected to be published in 2021. Furthermore, we are already working to update our famous redbook, the "ESSM Manual of Sexual Medicine" and in the next future a similar update will be propose also for the bluebook: the "The EFS and ESSM Syllabus of Clinical Sexology".

We are also enthusiastic to announce that a new scientific platform, named "ESSM Scientific Collaboration and Partnership" is currently under development, and we are sure that very soon this will help us to enhance even more the scientific activity of ESSM.

In tough times, people spontaneously spare energy and time for the utmost fundamental activities of their life. We strongly believe that either the scientific and the clinical activity that constitute our professional activity as experts of sexual medicine must be protected and safeguarded in any possible condition and situation. In this difficult moment, as always, ESSM is by your side.

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Sexual relationships during the lockdown: adjusting sexual counselling and therapy to the restriction of quarantine

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INTRODUCTION

Since the World Health Organization (WHO) has declared a pandemic over a new coronavirus which causes an illness known as COVID-19, we have gradually learned that the virus can spread to people who are within 6 feet (2 meters) of an infected person when he/she coughs or sneezes (respiratory droplets), or through direct touch with an infected person or object. Many countries asked their citizens to remain in their houses, close businesses and all events that may involve a gathering of people. Lockdown policy went into effect to avoid spreading the virus.

The pandemic with the consequent lockdown was, therefore, a period characterized by social isolation, uncertainty and stress. We still have a lot to learn about COVID-19 and sex. Coronavirus has been found in semen (1), feces (2) and urine (3) of people with COVID-19, but not in vaginal fluids. However, the relevance regarding sexual transmission remains unknown. Until this is better understood, specialists suggest considering these secretions potentially infectious (4). Anyhow, these data are moot, given that any in-person contact results in substantial risk for disease transmission owing to the virus' stability on common surfaces and propensity to propagate in the oropharynx and respiratory tract.

The broad guidance regarding physical distancing had substantial implications for sexual well-being. We still don't have enough data about the impact on the intimate relationships or the sexual life of people. Most of the health agencies recommended the following which led to a change in people's sexual behavior:

- singles who are self-isolated should not have sex with people who do not live with them;
- people can have sex with someone they live with and shows no symptoms if they both feel well and avoid contact with people outside their household.

Because many COVID-19–infected people are asymptomatic, Health Care Providers (HCPs) were left with little to offer beyond guidance to not engage in any in-person sexual activity.

In this article, we are sharing some thoughts and speculations about the challenges that this pandemic and lockdown period possibly brought to people's relationship and sex life. Moreover, leading a project on online clinical supervision for HCPs from all over the world (www.sexologysupervisors.org), we met the needs of many professionals about guidance and support in counselling patients in this difficult time. We take the occasion to participate in the current debate about treatment challenges and opportunities for sexual therapy during the quarantine.

DEALING WITH STRESS AND EMERGENCY

During the pandemic, people varied in the way they dealt with stress and emergency. For example, some people felt the need to binge on the news and read every article on the web, while others preferred to set boundaries and strictly select the information they process. A feeling of emergency and fatality overwhelmed some people, while others were focused on maintaining a stable daily routine. Some people adopted a proactive coping style and others adopted a passive coping style. Some individuals focused on problem-solving while others focused on the emotional regulation of their anxiety. As with every stressor, people have their own coping styles. Within the couple, when partners don't share a common coping style conflict may arise. However, it is also an opportunity to increase mutual understanding and acceptance of each other's way to manage life burden. On the other hand, some couples feel more efficient and skilled when it comes to working together towards a common goal, compared to having fun or having sex together. For these couples, this external stressful situation may increase the feeling of being united and enhance appreciation of each other's presence. This stressful period probably didn't affect all couples in the same way. Those that were skilled to manage important stressors, even if the coping styles varied, were more likely to navigate through this period while maintaining a feeling of connectedness.

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LOSS OF SOCIAL RELATIONSHIPS

If we think of the people that are involved in one's life beyond the primary partner and the children, then we can easily see the gap that was experienced during the lockdown. People experienced a sudden loss of contact with their close friends, the broader social network, those involved in childcare or housework, professional colleagues, various service providers (psychotherapist, physiotherapist, trainer, etc.), and some people also lost contact with their extramarital relationships. However, this broad social network has an important function for the primary relationship. It serves to cover needs that are not covered within the dyadic relationship. For example, the need for play, need for inspiration, for attention, for care, etc. But during the lockdown, these relationships were on halt. This increased reliance and expectations from the primary partner (e.g., share childcare and housework, have fun time together, cope with stress, share professional concerns, share erotic moments). Individuals that expected their partner to substitute all the above roles probably experienced disappointment. Individuals that focused on how they can contribute positively to their own needs and to the relationship instead of focusing solely on the contribution of the partner adopted a more productive and fruitful role. For example, if instead of blaming the other for being boring one tried to find ways to be creative himself while respecting the other's need for being quiet, the home was likely to become a space where all needs were covered instead of space where only one's needs are valued.

LOSS OF DAILY ROUTINE AND STRUCTURE

During the lockdown, usual routines were disrupted. Children were going to bed much later than usual, parents were working on the dining table or falling asleep on the couch watching a movie, weekends were similar to weekdays, family time was merged with individual time. Actually, in a period of chaos and feelings of not being in control, many homes felt messy because of loss of structure. But what impact did it have on erotic relationships? The loss of structure makes the present feel less important. It takes away the sparkle of the moments. For example, eating on the dinner table by just putting the laptop and stationery aside to fit the plates instead of setting the dinner table in a way that makes it a special moment. Or going to bed at 04.00 am after having fallen asleep on the couch instead of going to bed after sharing a drink with the partner on the balcony. Flashes seem more unique when they are different from other situations and they have our full attention. Family time is special when it is separated from working time. Weekends are special when they are different from weekdays. Intimacy moments are special when they are different from individual time. A loss of structure can take away the enthusiasm and exclusiveness of one's moments. Some couples created a structure in their daily routines and were able to preserve the reward of their moments. Others were overwhelmed by non-structure and felt that they lost the sparkle of their days including their occasions of eroticism and intimacy.

LOSS OF THE ABILITY TO WALK AWAY

During the lockdown, couples weren't able to walk away when they got into an argument. They weren't able to go somewhere when they felt fed up with each other. This could increase the amount of attention placed on the argument and thus prolong or intensify conflict. Distancing can help people understand their negative emotions and healthily express them without losing control. This is not about suppressing the negative feelings; it's about increasing understanding of one's own feelings and needs. During the lockdown, couples that were used to healthy management of their negative emotions could communicate their needs and didn't necessarily need to walk away. Distancing could occur by just going to another room or just not being present. On the contrary, couples that were used to being aggressive and insulting when feeling negative emotions lost the ability to walk away from violent behavior. The UN reported that domestic violence during the lockdown was intensified (5). In France, domestic violence had increased by 30% since March 17th; during the first two weeks of lockdowns in Spain, the emergency number for domestic violence received 18 percent more calls; helplines in Singapore have received 30 percent more calls. As NBC News reported, law enforcement agencies across the U.S. have seen domestic violence cases rise to 35 percent in recent weeks.

INFIDELITY AND FLIRTING

Internet communication allows people to feel a host of emotions without requiring any physical connection. People can feel sexual desire; they can feel wanted, understood, funny, special through online communication. This can happen at almost all times of the day and from every corner of the house. It is possible to flirt and chat with many people without even getting off the couch. It is possible to have an online affair while the primary partner is in the same room. Online communication can bring feelings of bonding or intimacy even during the lockdown. So, the pathways that could cover needs for intimacy and sexual expression where still there, thanks to technology. A lot of sexual activity moved online causing an increase of cybersex, phone sex, sexting, online sex parties, online affairs, as well as dating apps during the lockdown, compared to before. According to the Economist, in April the average number of messages sent daily across Match products, including OkCupid, PlentyOfFish, Tinder, Hinge and Match.com, was up by 27 per cent compared with the last week of February. During the worst week of China's epidemic, in late February, the average user of TanTan, a Chinese app, spent 30 per cent longer on the app than normal. As a matter of fact, the available time for that could have increased during the lockdown. Between late February and late March, the average length of a conversation on Tinder, one of the most popular apps, surged by 25 per cent. Therefore, online pathways allowed flirting, intimate relationships and sexual expression when physical mobility was restricted.

SEXUAL BEHAVIOR DURING THE LOCKDOWN

The empirical data on the sexual behavior of the population during the pandemic and the lockdown is still very limited. NBC News is conducting a poll to measure how coronavirus has impacted people's sexual life (6). Currently, over 11.000 participated: 22% answered the outbreak had positively affected their sex lives, 28% were neutral, while 50% declared it had affected them negatively. A British study presented data from a cross-sectional epidemiological online survey (7). In this sample of 868 UK adults self-isolating owing to the COVID-19 pandemic, the prevalence of sexual activity was lower than 40%. Sexual activity was defined as sexual intercourse,

masturbation, petting, or fondling, so it was not restricted to partnered sex. Therefore, about 60% of the study population reported no sexual activity, including masturbation. In another study that was conducted on a convenience sample of 270 men and 189 women living in a Chinese epidemic area, 25% of the participants experienced a reduction in sexual desire, while only 18% of men and 8% of women experienced increased sexual desire (8). A subanalysis of married individuals showed that 49% of married men and 29% of married women reported a decrease in the number of sexual partners, and 36% of married men and 28% of married women reported a decrease in the frequency of sexual activities. According to this study, during the COVID-19 outbreak, 32% of men and 39% of women experienced a reduction in sexual satisfaction. Some data were also obtained by a cross-sectional study conducted among individuals of three south-east Asian countries (Bangladesh, India & Nepal) from 3rd April 2020 to 15th April 2020 (9). The sample consisted of people that were cohabiting with their partner. Most of the participants said they had sexual intercourse with their spouse 1 to 5 times a week before the lockdowns, and this was mostly unchanged during the lockdowns. Only about 3.3% of the participants indicated that sexual activity had increased from 1 to 5 times a week to more than five times a week after being locked down. This increase could be the result of seeking intimacy and reassurance, or simply having more time to spend with their partner, but this is just an assumption. Different results to these studies were obtained by a Turkish study on female sexual activity (10). Interestingly, this study reported an increase in sexual desire and sexual activity of women. Also, there was a decrease in sexual satisfaction, a decrease in FSFI scores and more menstrual disorders. These studies provide some preliminary data on the sexual activity of the general population. However, they do not provide a good understanding of the factors that explain the sexual activity reported. For example, the contribution of mood states or relationship quality were not assessed. It could be assumed that the role of such factors moderated the influence of the pandemic on sexual activity and behavior during this period.

SEXUAL DYSFUNCTIONS AND CONCERNS AS A RESULT OF THE LOCKDOWN

The effect of the lockdown and the pandemic on the prevalence of sexual dysfunctions has not been reported until today. As most definitions of sexual dysfunctions require the problem to be present for at least 6 months, then we could assume that it is still early to have evidence for an increase on these disorders because of the pandemic and the lockdown. For example, a decrease in sexual desire doesn't necessarily indicate a dysfunction if it is not present for a significant amount of time and if it is not experienced with significant distress. Besides, an increase in masturbation practices does not indicate a compulsive sexual behavior disorder. As a matter of fact, as scientists, we need to be especially cautious of mistakenly interpreting situational adaptations of sexual behavior to one's mood or priorities as sexual disorders and dysfunctions. In addition to the above, we have no data about the impact of the lockdown and the pandemic on the course of sexual dysfunctions that were pre-existing.

We already know that general mood states, relationship quality and the sexual context are factors that influence sexual function and satisfaction. To the extent that the pandemic had a negative impact on these factors, we could assume that there was a higher risk for developing or maintaining a sexual problem. On the contrary, if the pandemic had a positive influence on these factors, we could suppose that there was a positive influence on sexual function. For example, for couples that experienced more time together, less daily stress and more intimacy we could imagine that sexual functioning was improved. For couples that experienced negative mood, conflict and less privacy, we could infer that sexual problems were experienced or exacerbated.

ADJUSTING SEXUAL COUNSELLING AND THERAPY TO LOCKDOWN

TIP 1
Given the important role of sexuality in most people's lives, HCPs should consider opening up a conversation with patients on this topic whenever possible.

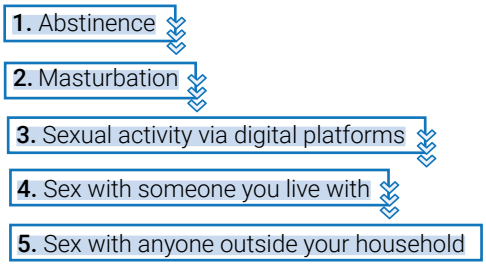
Sexual expression is a central aspect of human health but is often neglected by HCPs. Messaging around sex being dangerous may have insidious psychological effects at a time when people are especially susceptible to mental health difficulties. Sex can be a great stress reliever, but dating - casual or not - is indefinitely on hold for many people around the world. That is why facilitating brief conversations and referrals to relevant resources can help patients maintain sexual wellness during the pandemic. During all talks, HCPs should express a nonjudgmental stance to encourage comfortable discussion and minimize shame. This is particularly important with minors because the fear of judgment can lead them to withhold information about sexual risk behaviors (4).

It should be considered that this is an unprecedented and stressful time for HCPs as well; changes in working time, setting, and habits, different priorities, few or no guidelines on how to manage the patients' needs due to the lockdown, several challenges in their private life, these are all factors continuing to impact the way they work.

Here below there are some suggestions we found useful in orienting colleagues on sexual counselling and therapy during this period.

TIP 2
As we continue to fight the pandemic, HCPs should consider counseling on safe sexual practices and risk reduction as the first-line approach during the quarantine.

Fig. 1: Range of sexual practices organized from least to most risky



Adapted from: The NYC Health Department (nyc.gov/health) (6) and Turban et al., 2020 (4).

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Abstinence is the lowest-risk approach to sexual health during the pandemic. Given that abstinence-only recommendations, however, are likely to promote shame and unlikely to achieve intended behavioral outcomes, sex-positive recommendations regarding maintaining the sexual activity are optimal during the pandemic, balancing human needs for intimacy with personal safety and pandemic control. Therefore, although suggested by some health agencies, we strongly advise not to counsel patients on this approach.

Masturbation is an additional safe recommendation for patients to meet their sexual needs without the risk for COVID-19 infection. "You are your safest sex partner": this is a motto we can use in counselling patients to satisfy their sexual needs through self-stimulation. The lockdown could be a good period to explore sexual fantasies and discover different ways to give pleasure to our own body. HCPs can suggest reading/watching/listening erotica, trying sex toys, experience different stimulations by modifying a rigid pattern.

Sexual activity via digital platforms can be a good alternative in time of quarantine. Patients can be counseled to engage in sexual activity with partners via the telephone or video chat services. Privacy concerns could be an issue, so good advice is to use secure encrypted platforms. Clear consent is mandatory; therefore, patients should be warned about the risk of others taking screenshots of conversations or videos and sexual extortion. Minors should be counseled on potential legal consequences if they own sexual images of other minors.

TIP 3
HCPs should inform about taking care measures during the pandemic.

Sex with someone you live with is the safest approach for those who complete abstinence from in-person sexual activity is not an achievable goal. For couples who are quarantining in the same house, this could be the best option, and even an opportunity to improve their sexual life. Patients should be counseled about the risk for infection from the sex partner if they have been exposed while outside the home or from an asymptomatic COVID-19–infected partner.

Sex with anyone outside your household is the riskiest approach in pandemic time. Patients should be counseled on the risk for infection from partners who didn't follow a strict quarantine, as well as risk reduction techniques that include:

- minimizing the number of sexual partners
- avoiding sex partners with symptoms consistent with COVID-19
- avoiding kissing and sexual behaviors with a risk for fecal–oral transmission or that involve semen or urine
- wearing a mask
- showering before and after sexual intercourse
- cleaning of the physical space with soap or alcohol wipes

Simple and clear instructions can guide the patients on how to enjoy sex and to minimize the spreading of COVID-19:

- Avoid kissing anyone who is not part of your small circle of close contacts. Kissing can easily pass the virus.
- Condoms and dental dams can reduce contact with saliva, semen or feces during oral or anal sex
- Wear a face covering or mask
- Make it a little kinky, finding positions or putting "barriers" to reduce intense physical contact
- Masturbate together with the partner, and reduce face to face proximity
- Washing up before and after sex is more important than ever:
  - » *Hands*
  - » *Toys*
  - » *Keyboards and touch screens*
- Skip sex if you or your partner is not feeling well:
  - » *Closely monitor yourself for symptoms*
  - » *Take precautions to interact with people at risk (over 65 years of age or with serious medical conditions)*
- If you have sex with multiple partners, pick partners you trust if possible. Talk about COVID-19 risk factors, just as you would discuss PrEP, condoms, and other safer sex topics. Ask them about COVID-19 before you hook up. Consider the following:
  - » *Limit the size of your guest list*
  - » *Pick larger, more open, and well-ventilated spaces*
  - » *Wear a face covering, avoid kissing, and do not touch your eyes, nose, or mouth with unwashed hands*
  - » *Bring an alcohol-based hand sanitizer*
- If you usually make a living by having sex, consider taking a break from in-person dates. Video dates, sexting, subscription-based fan platforms, sexy "Zoom parties" or chat rooms may be options for you.
- Prevent HIV, other sexually transmitted infections (STIs) and unplanned pregnancy.

TIP 4
HCPs should consider different settings in providing their services. Lists of walk-in Health Services should be spread as much as possible through call centres and media.

Online sexual predation and gender-based violence have increased since the pandemic began. Moreover, limited access to Health Care Services put sexual and reproductive health and rights at risk. Children, women and sexual minorities should be considered very carefully during the lockdown, especially those people who may benefit from immediate counseling, medical care and support. Health Services and professionals should be available finding new ways to be reached. In Tab.1 a list of what we think could be the setting options and the essential services we should provide in pandemic time.

Tab.1: Settings and services during the lockdown

Settings	Services
Hotline	HIV-STIs (PrEP-PEP, treatment)
Online consultation	Unintended pregnancy
Online chat	Emergency Contraception
Email counselling	Fertility and Prenatal Care
Mobile counselling	Violence and abuse
Social media	Cancer Screening

TIP 5
For health services to be immune to future lockdowns, digital technology needs to be endorsed as a tool that has a central role in sex therapy. Legal, technological and scientific regulations are needed and require special attention.

During the lockdown, most sex therapy sessions were moved online. However, to our knowledge, the request for sessions was significantly decreased in the first 2 months. This could be because some patients were not familiar and didn't feel comfortable with online consultations. Some people didn't have enough privacy to talk freely from their house. In addition, some people placed less importance to their sexual problem during the pandemic. Some people had lost their job, some had lost a friend or relative, some were highly concerned about their health and the health of their family, some were over-occupied with homeschooling. Therefore, their sexual problem was not considered urgent or a timely need. For others, the pandemic period didn't stop the sexual problems from being a bothersome or important concern. Sex therapy for couples that were cohabiting was not a different process than before other than the fact that the sessions were online and that the role of mood, health and occupational concerns were now more prominent than in the pre-pandemic period. The most challenging sessions were for those patients that were single or in distance from their partner. For single patients, flirting, casual sexual encounters or paid sex may be integrated to the treatment approach. During the lockdown, these strategies were limited although some people had the opportunity to expand their flirting repertoire through the online apps. For those couples that were in distance, some sexual interaction could be maintained or explored through digital communication. For example, performance anxiety could be experienced even with digital sexual encounters, and therefore there was some space for developing management approaches. People with hypersexual like behavior (e.g. high frequency of pornography consumption and cybersex) were at risk of experiencing an exacerbation of their symptoms due to boredom and social isolation. Although the treatment-seeking rates for such conditions during the lockdown have not been reported, we assume that they were rather low in the first period, slowly increasing with the passing time.

Apart from these observations, what should we expect from people with sexual dysfunction in a lockdown situation? Probably, those who are single or self-quarantining are more likely to experience a decreased anxiety about their sexual life, while those partners quarantining together are more likely to feel more anxious because of the "forced" nearness.

TIP 6
HCPs should benefit from more time to listen/advice and, on the other hand, take advantage of free time and better collaboration of the patients.

Clinicians should encourage their patients in taking care of their sexual problems during the lockdown situation. This could be a special time to combine education, treatment and practice. Those who are in relational isolation can use the lockdown to recover their self-esteem and confidence in sexual performance. For example, men with premature ejaculation can try the effect of topical agents and/or medication (dapoxetine) by masturbating, finding the best ways, in terms of time and dose, to use them. They can practice with condoms (for some men a difficult issue when with a partner), and different modalities of stimulation (with lubricants, toys, or alternative strategies) to improve their control over the ejaculation. Women with generalized anorgasmia can discover their sexual pleasure and the best way to self-stimulate. They can expand their awareness with some exploration exercises, finding the most arousing stimuli, learn direct masturbation using vibrators or erotica, increase their knowledge on how to get an orgasm with intercourse reading specific books or website.

With couples, we can help partners in modifying rigid sexual repertoires and encourage them removing barriers to intimacy. Specifically, we can guide the partners in improving their sexual communication, sharing their sexual preferences, planning sexual encounters and focusing on pleasure, instead of performance. The authentic boost for intimacy, during the lockdown, could be the "outercourse" (everything but penetration), a series of techniques aiming to enhance the sexual experience with both partners having greater opportunity to orgasm (11,12).

HUMAN NEEDS IN THE ERA OF UNCERTAINTY

Trauma is defined as deeply distressing or disturbing experience. With post-traumatic stress disorder, after suffering a trauma, a person experiences intrusive negative thoughts and psychological distress. During this pandemic, people saw on the news what was happening in China, South Korea and Italy and anticipated the same to happen in their local community. People felt the psychological consequences of the trauma well before the actual trauma was experienced. We could call this a 'pre-traumatic' stress disorder. Still today, it's not clear if the trauma is over or yet to come. Within this environment of great uncertainty, people live their lives. In or out of lockdown, the need for connection, for love, for flirt and sexual expression remain. These human needs may be amplified or reduced, but they remain. The clinical significance of the dynamic interplay among sexual well-being, psychological individual-level factors and the societal environment during the pandemic remains to be understood.

For the predictable future, HCPs will need to incorporate new scientific advances regarding COVID-19 into how they think about sexual health and risk. Antibody tests may play a key role in how we evaluate sexual risk (4), but further research is needed to evaluate how reliable the antibody tests are, and to what extent these tests can inform about risk assessment. It will be important for HCPs to proactively discuss with patients what we learn from the emerging science, with the awareness that sexual health is a value and an important human right.

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COVID-19 patients : Sexual Function before and after COVID19 infection. A witness by those who survived.

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The Coronavirus Disease 2019 (COVID-19) pandemic started in Wuhan, China, and spread worldwide in less than 3 months between the end of 2019 and the beginning of 2020. The responsible of such outbreak was Sars-Cov-2, a coronavirus that probably originated in bats and whose intermediate host remains still unknown 1,2. Towards the end of February 2020, such disease landed in Italy, precisely in the north of Italy where many clusters were confirmed. On the 8th of March the Italian prime minister launched unprecedented strict quarantine measures that kept a large number of people in isolation affecting many aspects of people's lives. Nevertheless, to date more than 300,000 people have contracted the disease in Italy and the number is likely to increase in the near future.
The literature confirms that the elderly are more susceptible to severe illness, and the overall survival is much higher in younger patients 3. Thus, it is very important to study all aspects of well-being in order to recognize and treat all the possible consequences of the disease.
Considering the extraordinary circumstances and the impact that such measures may have on mental health it is important to determine whether this has also triggered a variety of sexual and reproductive problems. At the present time no data have suggested whether and how the coronavirus could affect the sexuality of these patients. However in our department we are in the process of obtaining data on patients affected by coronavirus evaluating their sexual function before and after COVID-19 infection. Despite data are incomplete and statistical analysis have yet to be performed there are few interesting cases that are worth to be discussed.

Roberto is a 39 years old engineer who is married with Anna, a beautiful 29 years old teacher. They were having a perfect life, nice working environment, excellent salary and brand new apartment to build a life together and a common passion for travelling. Roberto had a perfect erectile function in January 2020 and both of them were fully satisfied with their sexual activity.

On the 27th of February he and his wife started to have mild respiratory symptoms. After one week of antibiotic they remained symptomatic and eventually after their notification to the local General Practioner they underwent nasopharyngeal swab which resulted positive for Sars-Cov-2. Despite the symptoms disappeared after 2 weeks the he and his wife remained positive to the swabs for 57 and 64 days respectively. Both of them were frightened and frustrated during the first month of infection and they did not attempt any sexual intercourse during that period.

During the second month of the infection, since they became completely asymptomatic, they tried to get back to their normal sexual life. Roberto immediately noted a dramatic decrease of his erectile function and surprisingly the intercourse satisfaction and orgasmic function appeared completely worsened. On the other hand Anna's sexual desire appeared to be nullified, despite a recent study of Yuksel et al. have demonstrated that women' (without infection) sexual desire and frequency of sexual intercourse significantly increased during COVID-19 pandemic. They discussed about the situation and they blamed the strict quarantine measures and the stress related to the still positive nasopharyngeal swabs. After few attempts they gave up.

Three months after the infection (roughly one month after the end of the infection) they returned to their "normal" working life, however they realized something was different. Roberto realized his erectile function was not as good as before and the zest of the intimacy was changed. He is slowly recovering but according to him "pre-COVID-19 sexual pleasure is still far". On the contrary Anna found herself completely recovered.
The story of Roberto and Anna is emblematic of the sexual discomfort that such situation may lead to. Clearly stressful lifestyle is a factor known to impact couple's sexual relationship, even though no trials have been conducted in such circumstances. Previous studies on sexual health have been conducted during mass disasters such as earthquakes or wars, however such conditions cannot be compared to COVID-19 pandemic since there is no loss of living space and the strict quarantine is an unprecedented measure.
At the present time the scientific world is putting Sars-Cov-2 under the magnifying glass to better understand the spread, the pathophysiology, the possible consequences of such disease. However the scientific world should not put sexual disorders aside and further studies will be necessary.

3

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4

Changes in Education in Sexual Medicine accelerated by Covid-19

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Covid-19 has changed many habits and made uncertain what we once took for granted. Within the world of medicine, one of the more sensitive points is education and training. This has largely been put on hold over the last few months – something we never thought would happen. In the world of sexual medicine, the ESSM congress in 2020 was spared from the pandemic because of the timing of the year. Meanwhile, notable occurrences have included postponement of the World Meeting on Sexual Medicine and of the annual ESSM school. This is naturally detrimental for the development of our field. However, the turmoil has also opened our eyes to innovative possibilities. As in-person training has become difficult, the need for improvement has not subsided and new options has become apparent. Most professionals have become acquainted with the applications Skype and Zoom for online meetings. These applications have also shown potential for online lectures with the possibility of interaction. A very interesting example to keep notice of is the 2020 edition of the EAU will be offered online this summer. Likewise, the ESSM has contributed with web-seminars on our consensus statements directed by our past president Cobi Reisman and current educational chairman, Giovanni Corona. These started in May with the session on e-health and sexual health by Evie Kirana and have become a weekly event with high interest within the sexual medicine community. The online educational efforts will continue through the year with potential targets being the ESSM school of Sexual Medicine and our next congress. We are also contemplating to offer webinars corresponding to our traditional conference workshops in the spring of 2021.

Meanwhile, our association was already moving toward more web-based educational options even before the pandemic. The most important initiative to mention in this regard is the ESSM academy of genital surgery. The ultimate aim of the academy is to improve knowledge, technical and communicative skills of surgeons and to confirm that they master the novel operation techniques in genital surgery, according to the high European standards of education prior to performing them on their patients. This process will include validation of surgical training and assessment methods, dispersion throughout Europe of uniform training pathways and implementation of an accreditation system for genital surgeons. Naturally, the process cannot be completed without in-person training. But from the beginning an online platform with the potential to reach a large audience has been the cornerstone of the project. This includes basic videos on erectile dysfunction, which are already available online for ESSM members on our website. In addition, we are in the final stages of providing a surgical video library on penile implantation with multiple "skin to skin" and step-by-step surgery videos showing operation techniques, including assisting nurse support and device preparation, which will be available on the website soon. This process is being completed by the academy director Koenraad van Renterghem and academy rector Cobi Reisman along with the ESSM educational committee. It receives support and collaboration from Orsi Academy, The Multidisciplinary Joint Committee of Sexual Medicine (MJCSM), as well as relevant industry collaborators. Personally, I have great hopes for the concept combining online and in-person learning. Thus, education on the online platform will be supplemented by training on 3-D models and in cadaver labs and for some there will also be the possibility to complete actual fellowships on genital surgery in recognized centers of excellence. This allows for much of the learning to be completed before physical attendance is required and offers an unprecedented level of flexibility. In addition, those who are not able to go through the in-person training will still be able to learn online at their own discretion and to use the surgical videos as an ongoing reference point. This means that the knowledge contained by the experts within our association will be shared with an increasing audience to the benefit of patients worldwide. We describe the academy in more detail on the ESSM website under ***Education*** (https://www.essm.org/education/essm-academy-for-genital-surgery/).

4

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**available against proof of evidence*

At this point, it has become clear that the covid-19 situation is likely to accelerate the move to online platforms. Rather than only regret the situation we need to embrace this as an opportunity to create lasting improvements in our educational efforts. In spite of the disadvantages online courses might have in terms of personal interaction and a lack of networking opportunities, there are also significant advantages. The most obvious of these include convenience for the participants, a potential for a broader audience and a reduction in resources spent on travel and accommodation. This is of importance as it is becoming increasingly difficult for busy clinicians to find time and money for participation in physical meetings and congresses. Online webinars offers the possibility to stay updated while attending to one's normal duties. From here, the challenge remains to create interactive participation in the online education. Naturally, this is difficult in cases of recorded videos as in the Academy of Genital Surgery. However, our available platforms does offer the possibility to ask questions and engage with the speakers. For introverted audience members, this may even be easier than during sessions with physical attendance.

As our world will start to normalize and as our traditional teaching tools become available again, we should be mindful to retain and expand on the lessons we learn during this difficult time. One can imagine that future meetings and congresses may become hybrids of our previous meeting forms and online based learning. This would offer all the benefits of personal interaction while not completely excluding those clinicians and scientists who are not able to travel. One can also imagine that some sessions could be opened up even wider to include the public with patients and policy makers in the virtual audience. For the ESSM it will be important to be innovative and to move forward with such ideas to strengthen our organization and the field of sexual medicine going into the future.

5

Inflatable Penile Implant outcomes and satisfaction: – position statement of the European Society of Sexual Medicine (ESSM).

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INTRODUCTION

The aim of the current position statements of the European Society for Sexual Medicine (ESSM) on penile prosthesis was to better clarify the multiple aspects of inflatable penile prosthetic (IPP) surgery, offering an evidence-based clinical framework to guide management of erectile dysfunction (ED). Challenging was to summarize the important aspects around the IPP`s with a high relevance to the sexual medicine. Despite several studies exploring IPPs surgery, definite conclusions in certain areas remain difficult to provide due to the following reasons: the heterogeneity of models of IPP implanted as well as the variety of surgical approaches, the lack of well-structured prospective randomized controlled trials, the presence of very few scientifically validated tools to assess both patients' and partners' satisfaction rates after PP implantation. Several aspects of this surgery, including patient and partner expectations, the possible influence of patients' comorbidities and social circumstances on the surgical outcomes and patient and partner satisfaction following the implantation, are rarely investigated.

EVIDENCE ACQUISITION

We performed MEDLINE and EMBASE searches for peer-reviewed papers using the terms: penile prosthesis, patient and partner expectations, cosmesis, disappointment, dissatisfaction, penile prosthesis, penile implantation, comorbidity, socioeconomic factors, diabetes mellitus, prosthesis, outcome, satisfaction, reservoir, phalloplasty. Studies were included if they were less than 10 years old and had direct relevance to the subject. Due to the limited number of prospective and randomized-controlled (RCT) studies on IPP surgery in male patients with ED, all studies were considered and included. Studies older than 10 years were included only if considered to be of great value to the topic with respect to the quality of the data. Data was catalogued into study type, level of evidence, number of subjects, duration of follow-up, treatment arms and outcomes. Papers were analyzed and results summarized with all recommendations made based upon the available literature.

Statements were structured within five sub-category chapters

I. Influence of comorbidities & social circumstances of patients in association with PP
II. Female and male expectations of PP surgery
III. The impact of length, girth and implant type upon PP satisfaction
IV. Reservoir placement and patient satisfaction
V. Sexual satisfaction associated with PP in the context of phalloplasty surgery

Oxford criteria for levels of evidence (OCEBM) and grades were used [1]

5

I. INFLUENCE OF COMORBIDITIES & SOCIAL CIRCUMSTANCES OF PATIENTS IN ASSOCIATION WITH PP

1. Diabetes Mellitus

Statement #1 suggest optimizing glycemic control in patients with diabetes mellitus prior to penile implant surgery (Level 2; Grade B). Uncontrolled diabetes mellitus is a risk factor for increased infection rates [2]. According to a retrospective review of the American Medical Systems (AMS, Minnetonka, Minnesota, USA) database by Mulcahy and Carson [3], there is an increased infection risk for PP performed in patients with diabetes. Diabetic men had a significantly higher rate of revisions due to infection at 7 years (1.88%) than men without diabetes (1.53%; p=0.005) [3]. In contrast, other studies published in the 90s did not find an increased risk of infection in patients with diabetes. There is conflicting data on optimal hemoglobin A1c (HbA1c) cut-offs, which can help predict the potential increased risk of infection in diabetic patients. In a prospective trial of 90 patients, all infections were found in diabetic patients. There were infections in 31% of the poorly controlled, versus 5% of the adequately controlled diabetic patients. In this study, a HbA1c of 11.5% indicated patients at high risk for infection, thus the Authors proposed this as a cut-off value [4]. On the other hand, another prospective study on 389 patients found that there was no increased infection risk with increased levels of Hb1Ac. In addition, there was no difference neither in the median nor mean level of HbA1c in the infected and non-infected patients, regardless of diabetes [5]. The most recent and currently largest multi-center prospective study by Habous et al. [6], which included 902 penile implant procedures, found significantly higher mean HbA1c levels in patients with implant infection (9.5%) compared to patients without infection (7.8%) (p<0.001). A HbA1c threshold level of 8.5% predicted infection with sensitivity of 80% and specificity of 65%.

2. Prior solid organ transplantation

Statement #2 suggest that patients with prior solid organ transplantation can be considered for PP implantation (Level 3, Grade C). Small case series including less than 20 patients, published in the 1980s and 1990s, reported controversial findings regarding risk of infection and reoperation in patients with a history of previous solid organ transplantation. Some studies found that patients with prior solid organ transplantation had no infections of implants and no device malfunctioning [7][8][9]. Other studies instead found that the risk of infection and the risk of mechanical failure were increased [10][11][12][13]. A retrospective single-center study showed that the risk of infection after insertion of PP in patients with prior organ transplantation was similar to that in patients without prior organ transplantation (4.3% versus 4.2%). The risk of prosthesis malfunction was higher in transplant patients (8.7% versus 3.6%) [14]. In the most recent single-center study by Sun et al., [15], 26 patients with liver, kidney, heart and combined kidney and pancreas transplantation and 26 controls (patients without prior solid organ transplantation) were compared. The Authors found no differences in reoperation rates between the two groups (both 11.5%) at 30 months follow-up. In addition, there was no difference in reoperation rates between the various types of transplanted organs [15].

3. HIV

Statement #3 suggest offering PP surgery to patients with ED when indicated regardless of the HIV status (Level 3, Grade C). A retrospective study by Gross et al. [16] including 350 patients across two institutions found no difference in risk of PP infection in HIV negative (3%) versus HIV positive (4%) patients. Similarly, a single-center retrospective study by Daoudzadeh et al. [17] of 221 patients in a single institution found no statistically significant difference in subsequent implant infection between men with HIV (8.3%) and men without HIV (5.7%).

4. Smoking

Statement #4 suggest that smoking may be associated with an increased risk of revision surgery in patients undergoing PP implantation. We suggest encouraging patients to quit smoking (Level 3, Grade C). A retrospective Veterans' database analysis on 6,586 patients with PP surgery by Lacy et al. [18] and at least one year of follow-up found that smoking was associated with an increased risk of revision or explant surgery following PPI (hazard ration (HR): 1.17; 95CI: 1.02-1.34). Conversely, another retrospective analysis including 152 patients from Veterans Affairs patients at a teaching institution found no difference in the failure or revision rate according to the smoking status [19].Peripheral Vascular

5. Disease and Hypertension

Statement #5 suggest that peripheral vascular disease and hypertension may be associated with an increased risk of revision surgery in patients undergoing PP implantation. We suggest improving control of hypertension (Level 3, Grade C). A retrospective Veterans' database analysis on 6,586 patients by Lacy et al. with PP and at least one year of follow-up found that peripheral vascular disease and hypertension were both associated with an increased risk of revision or explant surgery following PP implantation (peripheral vascular disease: HR: 1.25; 95CI: 1.10-1.41; hypertension: HR 1.27; 95CI: 1.12-1.43), [18].

6. Spinal Cord Injury

Statement #6 suggest that patients with spinal cord injury may receive PP, provided that bladder emptying is possible and long-term indwelling catheters are avoided (Level 3, Grade C). Overall, patients with spinal cord injury seem to be at increased risk for prosthesis infection, as demonstrated by several retrospective studies published in the 1980s and 1990s [20][21][22][23]. One retrospective study by Jarow, however, did not find an increased risk of PP infection in patients with spinal cord injury [24]. A more recent retrospective study by Zermann et al. [25] on 245 neurologically impaired patients including 197 with spinal cord injuries, found a device infection rate of 5% at a mean follow-up of 7 years. With respect to semi-rigid devices, there was 18% risk of erosion, whereas with 3-piece inflatable devices, there were no erosions.

7. Age

Statement #7 There is no indication that IPP in patients older than 70 years of age results in poorer satisfaction rates. We suggest offering PP to patients aged ≥ 70 years with ED when indicated (Level 3, Grade 3). A retrospective single center study by Al-Najar et al. [26] found that 83% of patients aged ≥ 70 years were satisfied with a PP, and 73% were regularly using the PP for sexual activity. Similarly, another retrospective study by Chung et al. [27] found that 30 men aged ≥ 75 years reported satisfactory outcome with PP surgery and no difference in device survival and satisfaction rates compared to

186 men aged < 75 years at 38.8 months mean follow-up. Another retrospective single-center study by Kim et al. [28] on 438 patients found that patients' age (<60y vs ≥60y) was not associated with device survival. A retrospective single-center study by Madbouly et al. [49] on 54 patients aged > 60 years found that the modified frailty index was not associated with adverse outcomes at one-year follow-up.

8. Obesity

Statement #8 suggest offering PP to obese patients with ED, when indicated (Level 3, Grade C). A retrospective single-center study by Kim et al. [28] on 438 patients found that obesity (Body mass index, BMI, ≥30 vs <30 kg/m^2) was not associated with device survival. Evidence regarding PP in obese patients is poor and derives from a single retrospective study.

9. Urinary incontinence

Statement #9 Simultaneous implantation of IPP and artificial urinary sphincter (AUS) may lead to higher revision rates, and therefore the potential benefit of cost-effectiveness of synchronous surgery should be weighed against the potentially increased risk of revision surgery (Level 3, Grade C). A retrospective study by Patel et al. [29] analyzing 11,531 patients who underwent PP surgery, AUS surgery, or both (n=161) found that those with a dual treatment had a higher likelihood of undergoing revision surgery for PP at one year (odds ratio (OR): 2.08; 95%CI: 1.32-3.27; p<0.01) and at three years (OR: 2.60; 95%CI: 1.69-3.99; p<0.01) follow-up [29]. A retrospective study of 95 patients by Mancini et al. [30], including 33 with synchronous surgery, found that revision rate was not statistically different between single and dual surgery (9% versus 3%, p=0.6). Other retrospective studies with patient numbers lower than 20 found that simultaneous implantation of IPP and AUS is safe and effective [31][32]. A retrospective study by Sundaram et al. [33] on 304 patients with AUS found a higher rate of AUS cuff erosion in patients who also had PP placement (11.6%), when compared to patients that did not undergo simultaneous PP surgery (4.3%, p=0.037).

10. Peyronie's disease

Statement #9 suggest that PP surgery is feasible in patients with Peyronie's disease. We suggest that PP surgery should only be performed in the stable phase of the disease and in patients with ED not responding to medical treatment (Level 3, Grade B). Results from the Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration (PROPPER) study by Khera et al. [34] demonstrated that >80% of the 250 patients who received PP surgery for ED and concomitant Peyronie's disease were satisfied or very satisfied and were regularly using their PP at one year and two-year follow-up. A retrospective single-center study by Chung et al. [35] on 138 patients found similar device survival, patient satisfaction and penile straightening independent of the device used. Another retrospective single-center study by Chung et al. [36] on 18 patients who underwent PP insertion with synchronous penile plication found improvement in overall condition and penile curvature in all patients after a median follow up of 11 months. A retrospective study by Garaffa et al. [37] showed that 29% of patients with Peyronie's disease who had been treated with PP implantation required additional intraoperative straightening procedures in order to adequately correct the residual curvature. Levine et al. [38] found that PP surgery with straightening maneuvers in 99 men resulted in satisfaction rates of 84% at mean follow-up of 49 months. Complications included penile shortening in 3%, diminished sensitivity in 2%, difficulty operating the device in 1%, persistent curvature in 4%, superficial wound infection in 1%, and mechanical failure in 7% of patients. Overall, 13% of patients required revision surgery, including 7 replacements of PP due to mechanical failure. In two patients, revision was required due to pump malposition, and two patients underwent corporoplasty for impending distal erosion [38].

II. FEMALE AND MALE EXPECTATIONS OF IPP SURGERY

Statement #10 suggest that surgeons thoroughly discuss expected postoperative outcomes with both partners prior to PP surgery, including possible complications and their management (Level 3, Grade B). Over the last decade only a few papers evaluated female partner satisfaction rates [39][40][41]. With this modest evidence and considering the psychological assessment being used in cosmetic surgery, Trost et. al. (2013) formulated seven characteristics associated with higher rates of postoperative dissatisfaction [42]. The authors combined parameters in the mnemonic "CURSED" (Compulsive, Unrealistic, Revision, Surgeon Shopping, Entitled, Denial, and Psychiatric). Character traits of difficult PP patients include obsessive/compulsive tendencies, unrealistic expectations, those seeking multiple surgical options, feelings of entitlement, patients in denial of their prior erectile/sexual function and current disease status, or those with other psychiatric disorders. They provided this framework to identify and interact with difficult PP patients with the intention of enhancing the surgeon's ability to establish and strengthen the surgeon-patient relationship, reduce physical, emotional and legal risk, as well as ultimately enhancing patient satisfaction. Perhaps this article is a first step toward breaking one of the many barriers in achieving a best outcome for couples having PP surgery [43]. CURSED assessment of preoperative expectation may assist in identifying high risk patients.

III. INFLATABLE PENILE IMPLANT SATISFACTION – THE IMPACT OF LENGTH, GIRTH AND IMPLANT TYPE

Statement #11 Despite heterogeneity in the methods of measurement, it appears that overall Inflatable Penile Implant satisfaction is moderate to high (Level 3, Grade C).

Statement #12 Objective measures and patient perception of penile dimensions should be routinely reported in PP outcomes. In some cases, penile length can be progressively increased by the implant acting as a tissue expander (Level 4, Grade C).

Statement #13 Greater girth expansion may occur with longer PP in-situ time (Level 4, Grade C).

Statement #14 Coloplast Titan® showed slightly better rigidity than the AMS LGX® and CX® devices (Level 3, Grade C). The AMS700CX has demonstrated the best axial rigidity (three-point flex test) in the short phallus, the Coloplast Titan slightly better in the long phallus and in Peyronie's Disease patients (Level 3, Grade C).

Statement #15 Patients should be thoroughly counselled regarding the characteristics of each device in order to optimize satisfaction (Level 4, Grade 4).

Generally, studies demonstrate moderate to high levels of patient and partner satisfaction. However, it is important to remember that there are multiple aspects of satisfaction such as ease of inflation/deflation, appearance, usage, partner related satisfaction, as well as function, which are not universally included in reports of IPP outcomes. Many studies use validated scoring systems such as Erectile Dysfunction Inventory of Treatment Satisfaction (EDITS) or International Index of Erectile Function (IIEF), however, these have not necessarily been developed specifically for the evaluation of penile implant outcomes. Validated scoring systems for PP surgery include the Quality of Life and Sexuality with Penile Prosthesis (QoLSPP) [44][45][46], (Table 1).

IV. PATIENT SATISFACTION REGARDING RESERVOIR PLACEMENT OF IPP

Statement #17 Ectopic high submuscular (HSM) reservoir placement can be considered as an alternative method of reservoir placement during IPP implantation. (Level 2, Grade C).

Statement #18 Palpability of the HSM reservoir does not seem to be a significant factor with regards to revision surgery (Level 2, Grade C).

Statement #19 Subcutaneous reservoir can be used with caution in very obese patients (Level 2, Grade C).

Evidence
Satisfaction with respect to reservoir placement included the following domains – palpability, pain, general satisfaction, complications, device difficulties and location (Table 2).

V. SEXUAL SATISFACTION ASSOCIATED WITH IPPS AFTER PHALLOPLASTY SURGERY

Statement #20 There is insufficient data to differentiate between IPP and malleable devices in relation to satisfaction rates (Level 4, Grade C).
Statement #21 There is a need for validated instruments for assessment but in their absence, IIEF and SQOL-Men may be useful. (Level 4, Grade C).
Only 6 studies were suitable for inclusion. There were other studies with significant numbers of PP`s in phalloplasty but many only discussed surgical outcomes, complications and ability for sexual penetration without any satisfaction assessment and therefore were not included in the current manuscript (Table 3).

CONCLUSIONS:

A majority of the studies published on IPP deal with clinical or technical aspects of surgery, but not with associated factors, such as the patients' and partners' expectations, comorbidities and social profiles. Over the last decades a number of papers have described the expectations of both patients and their partners, the influence of the patients' comorbidities as well as a variety of social aspects in association with PP. This approach should be highly encouraged and supported by multi-centric prospective RCT.

The main disadvantages of the reviewed publications were the retrospective assessment approach with low numbers of patients, most of them summarizing only single center experience. Larger prospective multicentric epidemiological studies should be initiated and supported by relevant international societies.

The present ESSM position should be recognized as the first attempt to improve the understanding of the current situation around IPPs and to initiate further steps such as a European IPP registry to lay the foundation for future prospective multi-center RCT.

ACKNOWLEDGEMENTS

we would like to thank the members of the section reconstructive surgery of the ESSM scientific committee and invited experts for the outstanding cooperation contributed to the current ESSM statements.

5

TABLE 1. PATIENTS AND PARTNERS SATISFACTION IN ASSOCIATION WITH LENGTH AND GIRTH ENHANCEMENT

TITLE	AUTHORS & PUBLICATIONS	LEVEL OF EVIDENCE	FOLLOW UP	NUMBER SUBJECTS	OUTCOMES MEASURES	SUMMARY
Biomechanical Comparison of IPP: A Cadaveric Pilot Study.	Wallen JJ et al. (2018), J Sex Med	4	-	3	column compression modified cantilever deflection 3-point bending methods	Only the AMS LGX at less than maximum inflation (LTMI) was unable to consistently withstand the roughly 0.9 kg Coloplast Titan showed slightly better rigidity than the AMS LGX and CX devices CX showed the best rigidity in the shortest phallus Titan showed slightly better rigidity in the longest phallus (C) and the phallus with mild Peyronie's disease
Complications, functional and quality of life outcomes following primary and secondary implantation of PP at a tertiary referral center.	Ralla B et al. (2018), Int J Impot Res	4	26	43	EDITS QLQC30	AMS 700 and Coloplast Titan No difference in satisfaction
IPP as tissue expander: what is the evidence?	Chung PH et al. (2017), Int Braz J Urol	4		2749	Change in Length (cm) % change in length	1,532 AMS 700 LGX, 717 AMS 700 CX, and 500 Coloplast Titan . DOES NOT ASSESS SATISFACTION. Patients who underwent device replacement at <2 years did not experience an increase in mean cylinder length. On the contrary, patients who underwent device replacement at ≥2 years did experience significant increases in mean cylinder length (LGX 1.2 cm, CX 1.1 cm, and Titan 0.9 cm, p<0.001) The mean increases in length at ≥2 years were similar between the 3 devices (p=0.20). Sixty percent of patients demonstrated increases of >0.5 cm and 40% demonstrated increases of ≥1 cm. Titan increased 0.7 cm, 0.9 cm, 1.0 cm, and 1.3 cm at the time of device replacement 1, 2, 3, and 5 years after the initial placement, respectively. DOES NOT ASSESS SATISFACTION
Patient's satisfaction after 2-piece IPP: an Italian multicentric study.	Gentile G et al. (2016), Arch Ital Urol Androl	4	42	2005-2013	EDITS (Modified) w 5-point scale – very satisfied to not at all satisfied	Retrospective, non-randomised. • 29 (69%) – ambicor • 13(31%) – coloplast excel • 42% were extremely satisfied, 33% referred to be almost satisfied, the remaining 25% were substantially indifferent to the result • 73% of partners – fully satisfied. • 7 out of 42 pts (64%) reported to be fully satisfied by the device, once activated • Only three pts complained for the incomplete concealing of the prosthesis. • One was not satisfied for the insufficient girth of the shaft; another one referred shortening of the penis and one was unsatisfied for incomplete penile rigidity with full-activated implant. • The length of the penis was reported to be increased in 13 of patients, reduced in 8 pts, and unmodified in the remaining 21. • Conclusion: IPP is a feasible solution to treat severe ED. The 2-pieces models are a valid option of choice, especially in the elder patient, and has low rates of intra and postoperative complications. It also offers satisfactory rates of aesthetics and functional results

Comparison of the patient and partner satisfaction with 700CX and Titan PP	Otero JR et al. (2017), Asian J Androl		248		EDITS and non-validated satisfaction questionire	Retrospective. 194 CX, 54 Titan OTR • more patients satisfied with the 700CXTM than with Titan®. no patient was dissatisfied or very dissatisfied after the PP implantation (P = 0.0014). • optimal Mx: while no patient with the Titan® implant took longer than this time, 10% of patients with the 700CXTM implant went over this length of time (P = 0.0014). • ease deflation: 4% of patients with the 700CXTM implant were dissatis ed with the de ation of the PP, up to 24% of the patients with the Titan® implant were dissatis ed (P = 0.0031). • 207 partners: although both groups would "strongly" recommend to their partners to re-implant the PP, it seems there is a greater tendency that group 700CXTM would recommend it more than group Titan® with 69% versus 56%, respectively.
Prospective evaluation of patient satisfaction, and surgeon and patient trainer assessment of the Coloplast Titan one touch release threepiece IPP	Ohl DA et al. (2012), J Sex Med	4	113	6 and 12 months	Satisfaction	Prospective, single arm, Coloplast Titan OTR Overall satisfaction with the device was 90.6% and 90.0% at 6 and 12 months • ease of deflation, was seen in 70.8% and 73.3%
Physician and patient satisfaction with the new 700 momentary squeeze IPP	Knoll LD et al. (2009), J Sex Med	4	69		Pts questioned on ease of finding and using the pump, erection quality compared with a natural one, overall satisfaction with the PP	Prospective, single arm. AMS MS pump 96% easily locating the inflation bulb and 94% deflating the device with one push of the deflation button At 6 months, 77% of the patients were very satisfied, 9% somewhat satisfied, and 14% dissatisfied
Comparison between AMS 700™ CX and Coloplast™ titan inflatable PP for Peyronie's disease treatment and remodeling: clinical outcomes and patient satisfaction.	Chung E et al. (2013), J Sex Med	4	138		Surveyed on ease and frequency of use, patient and partner satisfaction, and self-esteem.	Prospective randomised, with retrospective telephone follow up. No control. AMS 700CX vs Coloplast Titan in modelling context. 88AMS, 50 Coloplast • 109 (79%) patients scored at least 4 on a 5-point scale of overall satisfaction with the cosmetic and functional outcomes. The most common reason for dissatisfaction was shortened penile length with 18 (62%) patients reported a decreased penile length post-operatively. • No statistically significant difference in patient usage and satisfaction rates between AMS 700 CX and Titan IPPs (P > 0.05). • Eighty-two percent of patients would undergo operation again and recommend to others. > 60% utilized devices more than twice a month. • 80% described the inflation and deflation of IPP as easy, 80% inflated the IPP completely full for sexual penetration. • More than two-thirds of patients reported greater self- confidence following IPP implantation.
Patient and partner outcome of inflatable and semi-rigid PP in a single institution.	Bozkurt IH et al. (2015), Int Braz J Urol	4	Minimum 1 yr	257	IIEF EDITS	Non-randomised cohort study. Not looking at differences between devices, only between malleable and inflatable. Also, mainly Ambicor • 97 AMS Ambicor, 13 AMS 700 CX and 8 AMS Ultrex (AMS, Inc., Minnetonka, MN, USA)) • 152 patients (80 IPP, 72 SPP) could be contacted • IIEF scores were 10.1±4.5, 23.4±1.5 • EDITS 78±11 (patients) • EDITS 72±10 (partners)

Implantation of AMS 700 LGX PP preserves penile length without the need for penile lengthening procedures.	Negro CL et al. (2016), Asian J Androl	4	6month	36	Stretched flaccid length, length at p50, p100 IIEF EDITs	Mixed aetiology. • A significant difference in stretched flaccid penile length was seen between 6 and 12 months (P = 0.033). P100 was also signi cantly increased at 6 and 12 months, with a mean 10% increase (1.3 ± 0.4 cm) from baseline to 12 months. • stretched penile length was at least 1 cm longer at 12 months than preoperative and 6 months measurements in all patients, • 80% of patients satisfied with the final length • mean stretched flaccid penile length was 13.1 ± 1.2 cm at baseline, and was greater at 6 months (13.7 ± 1.1 cm [P = 0.018]), and at 12 months (14.2 ± 1.2 cm [P = 0.0001]); a mean difference of 1.1 ± 0.3 cm at 12 months versus baseline. • Mean P50 and P100 lengths were 13.1 ± 1.2 cm and 13.9 ± 1.3 cm (P = 0.002) at baseline; 13.1 ± 1.2 cm and 14.3 ± 1.3 cm (P = 0.0001) at 6 months; and 13.1 ± 1.2 cm and 14.4 ± 1.3 cm at 12 months (P = 0.0001).
Prospective and longterm evaluation of erect penile length obtained with inflatable penile prosthesis to that induced by intracavernosal injection	Wang R et al. (2009), Asian J Androl	4		11	Erect penile length (cm) (ICI) vs length following IPP	First study to objectively show a significant decrease in erect penile length after IPP implantation when compared with that after ICI Erect penile length (mean ± s.e.) as induced by ICI was 13.2 ± 0.4 cm, whereas the lengths attained with IPP were 12.4 ± 0.3, 12.5 ± 0.3 and 12.5 ± 0.4 cm at the sixth week, sixth month and 1-year follow-ups, respectively.
Upsizing of inflatable penile implant cylinders in patients with corporal fibrosis	Wilson SK et al. (2006), J Sex Med	4		37	Length, upsizing to standard IPPs (AMS 700CX, Mentor Alpha 1, Mentor Titan	Corporal fibrosis patients Upon reoperation, it was possible to pass dilators of 12 mm width proximally allowing the substitution of standard-sized AMS 700 CX (23), Mentor Alpha 1 (10), or Mentor Titan (2). Additionally, corporal length measurements in the previously infected patients increased an average of 2.2 cm
Prospective evaluation of postoperative penile rehabilitation: penile length/ girth maintenance 1 year following Coloplast Titan inflatable penile prosthesis.	Henry GD et al. (2015), 2015	4		93	Penile length girth and number of pumps required for full inflation How satisfied w penile length? Worse, unchanged, improved	Penile measurement changes were statistically significantly improved at 12 months as compared with immediately postoperative and at 6 months. 64.5% of subjects were satisfied with their length at 1 year, and 74.2% had perceived penile length that was longer (29%) or the same (45.2%) as prior to the surgery; 61.3% and 16.1% of subjects had increased and unchanged satisfaction All but two subjects (93.4%) were satisfied with the overall function and dimensions of their IPP. Coloplasty Titan only.
Mechanical reliability and safety of, and patient satisfaction with the Ambicor inflatable penile prosthesis: results of a 2-center study.	Levine LA et al. (2001), J Urol	4	131	43.4	EDITS (Modified)	Satisfaction 90.6/82.6 Pt/Partner
Penile length alterations following penile prosthesis surgery.	S. Deveci et al. (2007), Eur Urol	4	56	1 month and 6 months	EDITS IIEF	Prospective, overall satisfaction not reported; only score change vs raw score • unable to find a significant measured length loss despite a subjective penile length loss perceived by 72% of patients • Subjective penile length loss was more common in patients who had undergone radical prostatectomy before prosthesis implantation (32%). • men complaining of length loss had lower IIEF satisfaction domain and EDITS scores.
Outcomes and Satisfaction Rates for the Redesigned 2-Piece Penile Prosthesis	M. Lux et al. (2007), J Urol	4	146	38	EDITS (Modified)	Modified EDITS (88/76) (pt/partner)
Penile Implantation in Europe: Successes and Complications with 253 Implants in Italy and Germany	A. Natali et al. (2008), J Sex Med	4	200	60	EDITS (modified)	AMS 700CX, AMS Ambicor, and AMS 600-650: • PT: 97%, 81%, 75% • Partner: 91%, 91%, 75%

Erectile function and sexual satisfaction before and after penile prosthesis implan- tation in radical prostatectomy patients: a comparison with patients with vasculogenic erectile dysfunction.	J. Menard et al. (2011), J Sex Med	3	37.6	N=90	IIEF Complications	>85% satisfaction • compares post RP to vasculogenic cohorts • Not truly assesment of ambicor (24%), 3 piece 70%).
Patient's satisfaction after 2-piece inflatable penile prosthesis implan- tation: an Italian multicentric study.	G. Gentile et al. (2016), Arch Ital Urol Androl	4	27	42	EDITS for Ambicor olny.	• 1% of pts (30) reported regular use of the prosthesis, at least 1 time/week, the satisfaction was good in 42% of pts (18), quite good in 33,3% (14), quite bad in 2,4% (1), very bad in 7,1% (3), 6 pts (14,4%) didn't answer. • In 29 cases (69%) the AMS Ambicor device was implant- ed, since a Coloplast Excel model was placed in the remaining 13 (31%).
A survey of patients with inflatable penile prostheses for satisfaction	MJ Brinkman et al. (2005), J Urol	4	-	248 (199 full response)	Satisfied, neither s nor d, dissatisfied Looked at inflation, deflation, spontaneous inflation, EF for intercourse, rigidity during intercourse Satisfaction overall, fear of failure, would have surgery again, would recommend surgery	12 AMS 187 Mentor • 69% satisfied • No difference in type of implant • However, responses tended to favor the Alpha IPPs in terms of overall sexual satisfaction (p =0.058), natural feeling of the prosthesis (p =0.061), flaccid appearance of the penis when deflated (p =0.054), and education with demonstration of inflation and deflation (p =0.075).
AMS three-piece inflatable implants for erectile dysfunction: a long-term multi-institutional study in 200 consecutive patients.	F. Montorsi et al. (2000), Eur Urol	4				Old study but large numbers • 98% patient and 96% partner satisfaction rates • 185 patients from a group of European in- stitutions,

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TABLE 2. STUDIES TO RESERVOIR PLACEMENT

TITLE	AUTHORS & PUBLICATIONS	LEVEL OF EVIDENCE	FOLLOW UP	NUMBER SUBJECTS	OUTCOMES MEASURES	SUMMARY
Extended Experience with High Submuscular Placement of Urological Prosthetic Balloons and Reservoirs: Refined Technique for Optimal Outcomes	Pagliara et al. (2018), Urology Practice	3	Mean 25.6 (1.9-93.6) months	560 1st time reservoir RETROSPECTIVE	Pain/herniation Deep pelvic complications (vascular/bladder)	619 HSM (IPP –coloplast and AMS 344, AUS 275) 2009-2016 but only 560 1st time available for review • 8/399 1st time HSM revised – 4 for pain, 4 for herniation • 6/161 1st time SOR revised – 3 for herniation, 3 for deep pelvic complicaitons
Subcutaneous Placement of Inflatable Penile Prosthesis Reservoirs	Garber and Bickell (2016), Urology	4	7-11 months	7 (1 explanted early) Average BMI 39 RETROSPECTIVE	Palpable herniation	Subcutaneous Reservoir 8/1000 coloplast IPP single surgeon, 1/8 explanted for infection, other 7 not palpable by patient or surgeon
Does Pressure Regulating Balloon Location Make a Difference in Functional Outcomes of Artificial Urinary Sphincter?	Singla et al. (2015), J Urol	3	Mean 23 months	294 RETROSPECTIVE	Herniation Deep pelvic	294 AUS (HSM 154, SOR 140) • No demographic difference • No pain • 1/140 SOR – herniation • 1/140 SOR – spontaneous bladder rupture unrelated to reservoir • No problems with HSM • No difference in continence rates
Reservoir alternate surgical implantation technique: preliminary outcomes of initial PROPPER study of low profile or spherical reservoir implantation in submuscular location or traditional prevesical space	Karpman et al. (2015), J Urol	2	Mean 17.8 months	744 PROSPECTIVE	Herniation Palpable satisfaction	PROPPER study – AMS 700 IPP devices only • 3/572 SOR – 81% very satisfied, 2 herniation, 1 capsular contracture • 2/172 HSM – 85.9% very satisfied, 2 herniation • Palpability was not an issue
High submuscular placement of urologic prosthetic balloons and reservoirs: 2-year experience and patient-reported outcomes	Chung et al. (2014), Urology	3	Mean 3.2 months	146 RETROSPECTIVE	Palpability Bother	Mixed AMS700, Titan and AUS • 146 cases, single surgeon • 80% not palpable by patient • 9/146 bothered but only 2 wanted revision • 2 AUS herniation • Self-reported patient satisfaction 97% AUS, 96% IPP

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TABLE 3. STUDIES TO PHALOPLASTY

PAPER	N	DIAGNOSIS	MEDIAN FU (M)	METHOD	PENILE PROSTHESIS	PENETRATIVE SEX	
Falcone et al. (2018)	104	FTM	20	In house questionnaire	3 piece IPP	77%	Functional & Cosmetic Satisfaction 88%, Partner satisfaction 60%, Orgasm 61%
Leriche et al. (2008)	35	FTM	110	In house questionnaire	Ambicor/ malleable	51%	
Zuckerman et al. (2015)	31	48% FTM	60	From notes	21 malleable, 10 IPP	81%	No differentiation IPP vs malleable
Callens et al. (2015)	10	Non-FTM	37	Individual psych interview	Ambicor/ Spectra	? 100%	8/10 orgasm with sex, 2/10 masturbation, satisfaction with erect length slightly more than control group but not statistically significant
Young et al. (2017)	9	Trauma/ Exstrophy	30	In house questionnaire, IIEF, SQOL for men, web and phone interview	? type of PP	66%	Masturbation 78%, IIEF – overall satisfaction 5/10, orgasmic 6/10, intercourse satisfaction 10.5/15, SQOL for men – 60/100 no change after PP
Falcone et al. (2016)	6	Trauma	51	In house questionnaire	3 piece IPP	100%	Orgasmic 100%, Satisfaction 100%

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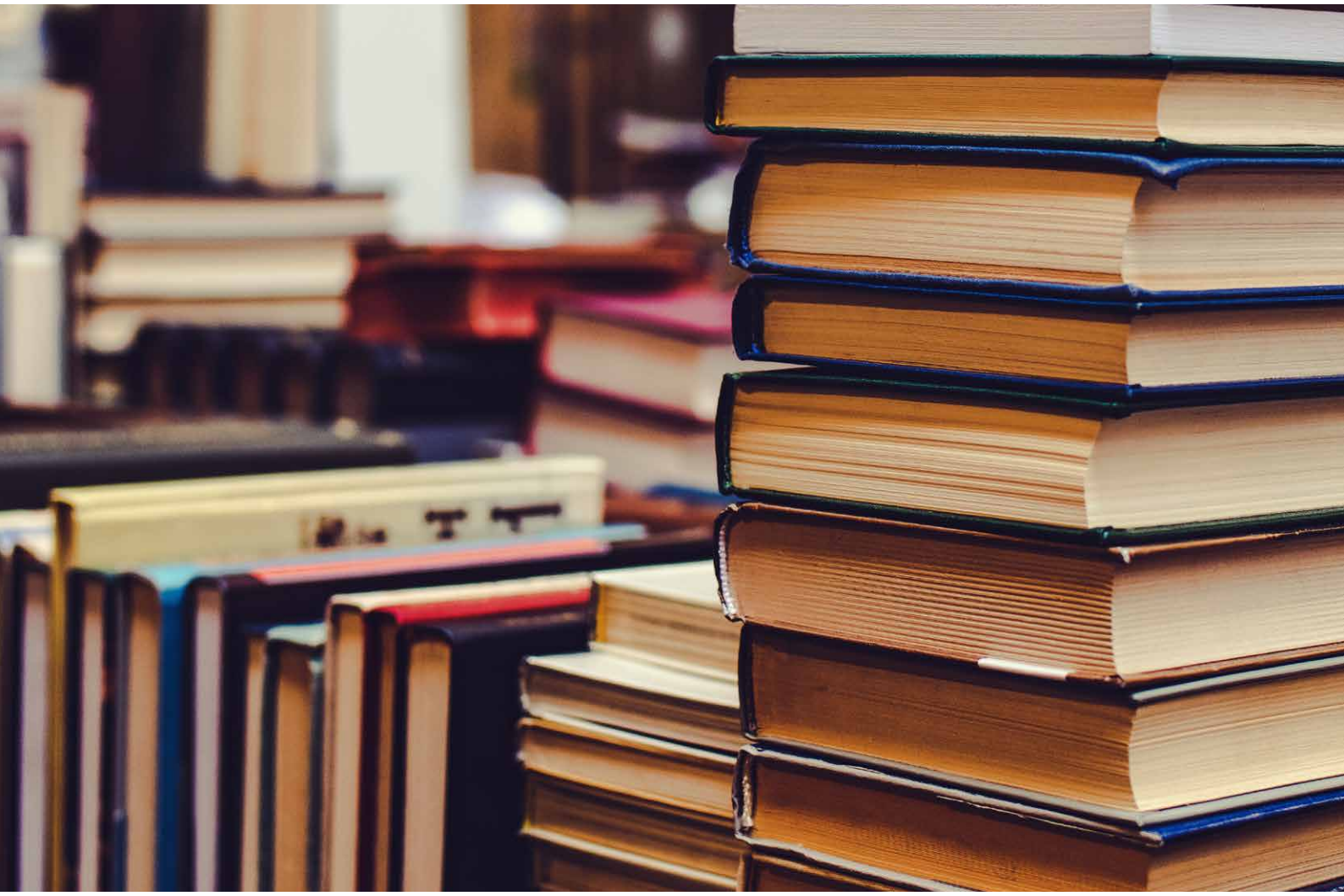

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Collagenase is no longer available. What now?

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ABOUT PEYRONIE'S DISEASE

Peyronie´s disease (PD) is condition that results from fibrotic plaque formation of the tunica albuginea and that can develop to a number of penile deformities including cuvature, shortening, narrowing, hour-glass deformity and/or hinge deffect. PD usually affects men over their 50s and the estimated incidence varies from 3% to 9%[1]. The etilogy of PD remains unknown, but the most accepted hyphotesis is that vascular microtrauma during sexual intercourse releases an uncontrolled inflammatory reaction in genetically susceptible men[2].

PD is usually divided in two well-defined phases: acute and chronic. During the acute inflammatory phase the plaque begins to form and the deformities progressively become apparent. Patients tipically present pain during this phase. In the chronic or stable phase the pain usually disappears and curvature (or any other malformation) stabilizes. The plaque begins to harden and, although described, curvature rarely resolves spontaneously[3]. Depending on the severity of the curvature, men with PD may find penetrative sexual intercourse difficult or impossible, causing psychological or emotional distress, and relationship problems[4].

Many conservative treatments have been postulated, including shockwave therapy, iontophoresis and intralesional, topical and oral drugs. None of this treatments have demonstrated its efficacy and safety in large, well designed clinical trials[5]. Surgical correction is indicated in men with estable disease unable to have penetrative sexual intercourse. Although the results of surgery in centers with experience correcting the curvature or penile deformity is usually excellent, the different procedures may have undesirable collateral effects: penile shortening, erectile dysfunction, penile numbness, recurrence of curvature, possible palpable stitches under the skin, and potential need of circumcision at the time of surgery[6].

THE ROLE OF COLLAGENASE FOR THE TREATMENT OF PD

After some previous studies regarding the efficacy and safety of the collagenase for PD[7], in 2013 the results from the "The Maximal Peyronie's Reduction Efficacy and Safety Studies I and II" (IMPRESS I & II) lead to the approval of the collagenase of the *Clostridium Histolyticum* (CCH) as the first conservative treatment for PD by the Food and Drug Administration[8]. Since then, many other trials and office based studies have demonstrated a reduction in curvature that varies between 28-34.4%[9,10], with a good safety profile, being the most common adverse effects ecchymosis, numbness and hematoma.

Other groups have published their results with CCH following the classic treatment scheme. Levine **et al**[11] reported in 2015 an improvement in curvature from an initial mean of 53º to 34.7º after treatment (-34.4% at 36 weeks). In 2016, Ziegelmann **et al**[12], published the results of their prospective study in 69 patients, in whom an improvement of 14% after the first cycle, 28% after the second, 30% after the third and 37% after completing treatment with a fourth cycle were observed. In 2017 Anaissie **et al**[13] found that there was no significant improvement in the curvature after the administration of a fourth cycle, with the best response seen after the first cycle. Patients with a response ≥20% after finishing the treatment have had a more intense response after the first injection (-16.2º vs -5.8º, **p**<0.001). This data introduced the possibility of not completing the classic four cycle scheme to achieve good results.

Since the approval of CCH, some groups have investigated modifications of the original protocol or inclusion criteria in order to achieve similar results reducing the cost of the treatment. Ralph ***et al***[14] published in 2017 the results of a prospective study involving 53 patients with PD and treated with CCH using a new shortened protocol. Most of the participants had an improvement in the angle of curvature by a mean (range) of 17.36º (0º-40º) or 31.4% (0%-57%) from baseline after three CCH injections. There was an improvement in each of the IIEF questionnaire domains, all three PDQ domains and the GAPD. They concluded that the results of using just three CCH injections according to this modified protocol are comparable to those of the clinical trials that used eight CCH injections, reducing the duration and the cost of the treatment.
The usefulness the the CCH therapy in combination with other treatments for PD has also been explored. Ziegelmann **et al**[15] hypothesized that PTT in combination with CCH would result in greater improvements in penile curvature and lenght relative to CCH alone. They recruited a total of 51 patients who underwent a similar protocol

to the described in the IMPRESS I and II, including manual modelling and stretching. The mean (SD) improvement in penile curvature was 20.9º (17.3º, p<0.0001), with no significant difference indentified in the degree of curve improvement based on frequency or duration of PTT. Nevertheless, Ralph **et al16** performed a recent study evaluating the efficacy and safety of CCH plus vacuum-pump therapy with and without penile modeling. They recluted 30 patients that were offered a standard CCH treatment of a maximun of 4 cycles 6-week apart with 2 injections for each cycle. The found no significant difference in the curvature improvemente between both groups, but the results seem to be slightly better than the previously reported in similar studies without using the vacuum therapy (mean change from baseline -23.7º [SD=10.9] for CCH+vacuum+modeling and -23.3º [SD=7.2] for CCH+vacuum; between-group difference=0.3º, 95% CI= -7.3 to 6.6). Also in a recent paper from the authors**17** with a series of 87 patients that followed a classic protocol of CCH but adding a PTT for at least 4 hours a day, we found a mean reduction in curvature of -23.29° (-41%) with a mean number of cycles of about two. so we concluded that the concomitant use of CCH and PTT may limit the number of treatment cycles necessary to optimize outcomes when compared with CCH alone.

To conclude, CCH has demonstrated to be a safe and effective treatment for PD. Even in those cases in which the response is not complete and there is still a need of surgery, it allows to approach it from a better baseline, potentially reducing the possibility of adverse effects (penile shortening, erectile dysfunction). The decision of the manufacturer (Endo Pharmaceuticals, Malvern, PA, USA) to withdraw CCH from the market out of the United Stated, has removed from our treatment armamentarium an option that was being stablished as a first line choice for this disease, in our opinion. This decision seems to respond exclusively to economic reasons, as long as no additional serious adverse event has been reported to our knowledge, and there has been no concern of the European Medicines Agency about its use in PD.

WHICH ARE THE ALTERNATIVES?

Once experienced the efficacy of the CCH for PD, it os our opinion that start offering again our patients surgery as the only and gold standard treatment is a step backwards for both the patients and their physicians. So, in this way, we need to review our armamentarium to think which could be the alternatives.

First, we need to focus on the diagnosis of PD during the early acute stage. When identifying in this moment, we can avoid or palliate the penile deformities that could appear in the future stablishing strategies like the use of a PTT in monotherapy. In this respect, Martínez Salamanca **et al18** published in 2004 their series with 55 patients with active phase PD treated with PTT 6-9 hours daily for 6 months, comparing them with a control group of 41 patients. An improvement in the curvature of 20º in patients treated with the PTT was observed, in contrast to a progression of 23º in the control group. If we success identifying the disease in the active phase, at least we will be able to try to reduce the potential development of curvature and penile shortening.

And second, there are still options for the treatment of the stable phase, although in our opinion there is still a lack of evidence about them. In this regard, the most recent EAU Guidelines on Sexual and Reproductive Health**18** introduce a 'strong' recommendation for the use of Interferon α-2b in PD. This drug has been shown to decrease fibroblast proliferation, extracellular matrix production and collagen production from fibroblasts and improve the wound healing process from PD plaques in vitro. Intralesional injections (5x10^6 units of IFN-α2b in 10 mL saline every two weeks over twelve weeks for a total of six injections) significantly improved penile curvature, plaque size and density, and pain compared to placebo. A study showed that regardless of plaque location, IFN-α2b is an effective treatment option. Treatment with IFN-α2b provided a greater than 20% reduction in curvature in the majority of men with PD, independent of plaque location. Given the mild side-effects, which include sinusitis and flu-like symptoms, which can be effectively treated with NSAIDs drugs before IFN-α2b injection, and the moderate strength of data available, IFN-α2b is currently recommended for treatment of stable-phase PD.

6

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7

Robotic Surgery and Sexual medicine: too distant worlds?
An interview with Daniar Osmonov

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Mrs. Kalz: *Hello, Dr Osmonov, nice to meet you. You have an excellent reputation as an expert in robot-assisted surgery. You belong to the team that originally introduced robotic surgery in Kiel. You have invested loads of dedication and energy in this robotic surgery program, which finally resulted in the foundation of the internationally renowned Kurt-Semm Center for interdisciplinary digital medicine in Kiel.*
The question lies close at hand: how did you develop so pronounced an interest in sexual medicine on top of robotic oncology? Aren't these two topics worlds apart?

Osm: First of all, thank you for your time and interest in doing this interview with me for ESSM today! Well, your question is simple and hard to answer at the same time.
To be honest with you, I have no straight forward answer. I think it is actually as simple as this: I love medicine in general and all fields – at least those in urology – have the potential to intrigue me. However, I´ll try to explain in more detail ...

One of the reasons why I chose a German career in urology is because there is a systematic training curriculum, which includes all aspects of urology, such as infections, oncology, gynecology, pediatrics, stone treatment, andrology, endoscopic surgery, laparoscopy, robotics and many others. I have always wanted to learn urology from scratch and as hands-on as possible. I also wanted to gain basic medical knowledge, such as human anatomy and physiological processes in the body to be able to fully understand all aspects of modern urology. It's been a long way to obtain a comprehensive view on all topics associated with urology. Few other disciplines in medicine cover such a wide range. So, I have always been someone who likes variety in what they do.

Ms. Kalz: *But why did you choose sexual medicine and penile prosthetics as one of your favorites? That seems to be a rather unobvious and rare choice.*

Osm: Let me explain. There is something that connects robotics and sexual medicine, at least from my point of view. The issue at stake here is the patients' quality of life, which is what medicine is ultimately about. I have been performing radical prostatectomies since 2001 and I see huge numbers of these patients. Most of them express gratitude for successful treatment, especially with respect to getting rid of the cancer. Being able to have helped a patient to be cancer-free, has always made me glad, and by reverse I feel upset in a case of unsuccessful treatment. I felt sure that successful cancer treatment provided real satisfaction and that it would be of consequence when looking back at one's own life. It was clear for me until I had one interesting clinical case.

I performed robot-assisted prostatectomy on a 41-year-old patient with high-risk prostate cancer. Unfortunately, I could not preserve the neurovascular bundle which resulted in a severe erectile dysfunction. He came to my office 3 months later and said something like: "Thank you for saving my life, doctor, but yet I have to confess to you I am deeply unhappy, because I am not a man anymore in the way I used to be! We used to have a fulfilled love-life, my wife and I, and now there's nothing going."

Ms. Kalz: *That must have been disappointing for you.*

Osm: Yes definitely. I had seen some more patients like the one I mentioned, but until then I had been very practical about it, just telling the patients the facts why this happened and that he could seek help in such and such a way. This patient was different, somehow, maybe because he was in my own age-group. Suddenly it was not only a clinical case for me, but I say a truly unhappy young man sitting in front of me. It helps me to put myself in his place and I realized that the situation of complete erectile dysfunction was a very grave one, especially at such a young age.

Ms. Kalz: *Ok, now I can see the connection. But how did this case evolve further. Were you able to help the young patient?*

Osm: After some unsuccessful attempts with PDE5 inhibitors and auto-injection therapy, I decided to treat his erectile dysfunction surgically by inserting a penile implant. Eight weeks the patient showed up again. I'll never forget how happy he was. He apologized for his negative state of mind after the prostate surgery and said he just came to let me know how glad he was now with his penile implant.
In that moment I understood: "It is a good thing to save somebody's life, but to make your patient happy is yet the ultimate reward."

Ms. Kalz: *Has it changed your professional life?*

Osm: After that case I started a penile prothesis program in Kiel and I have since been able to expand from a "one-man show" to one of the best-known high-volume centers in Germany. And one more thing: While my wife rarely tells me that I made her happy, it is a great feeling to hear it from so many patients after penile prosthesis implantation. To my experience, nothing makes patients that have lost their erectile function as happy as a rehabilitation of erectile function and thus their ability to have a meaningful relationship that includes all aspects love and partnership. There is beauty in the art of sexual medicine!

Mrs Kalz: *Thank you Daniar! It has been a great experience to talk to you and to find out what is behind sexual medicine for you.*

Have you read? Best of the Best. Basic Science.

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FEMALE SEXUAL DYSFUNCTION

Harroche J, Urban-Maldonado M, Thi MM, Suadicani SO. Mechanosensitive Vaginal Epithelial Adenosine Triphosphate Release and Pannexin 1 Channels in Healthy, in Type 1 Diabetic, and in Surgically Castrated Female Mice. J Sex Med 2020. 17: 870-880.

Although the mechanosensitivity of the female genital organs and its importance for proper perception and response to penetrative sexual stimulation have been well recognized, the exact mechanisms and molecular mediators involved in this response are still poorly understood. It has been proposed that adenosine triphosphate (ATP) and its purinoceptors are involved in the mechanisms of mechanosensory transduction in the vagina, such as has already been reported for the bladder and ureters. This study aimed to investigate if intravaginal mechanical stimulation would trigger vaginal ATP release and if this response would involve Pannexin 1 (Panx1) channels and be altered in animal models of type 1 diabetes (T1D) and menopause. The authors used diabetic Akita female mice as a T1D model and surgical castration (OVX) as a menopause model. Panx1-null mice were used to evaluate Panx1 participation in mechanosensitive vaginal ATP release. Vaginal washes were collected from anesthetized mice at baseline and 5 minutes after intravaginal stimulation. ATP levels in vaginal washes were measured using the luciferin-luciferase assay. Panx1 mRNA levels in vaginal epithelium were quantified by quantitative polymerase chain reaction. The authors found that ATP released after intravaginal mechanical stimulation was 84% lower in Panx1-null and 76% lower in diabetic mice compared with controls and was reduced in a progressive and significant manner in OVX mice when compared with Sham. They also found that Panx1 mRNA expression in vaginal epithelium was 44% lower in diabetics than in controls and 40% lower in OVX than in Sham group. These findings led the authors to conclude that Panx1 downregulation and consequent attenuation of mechanosensitive vaginal responses may be implicated in mechanisms of female genital arousal disorder, thereby providing potential targets for novel therapies to manage this condition.

ERECTILE DYSFUNCTION

Sevilleja-Ortiz A, El Assar M, García-Rojo E, et al. Enhanced Contribution of Orai Channels to Contractility of Human Penile Smooth Muscle in Erectile Dysfunction. J Sex Med; 2020. 17: 881-891

Despite the efficacy of type 5 phosphodiesterase inhibitors (iPDE5) in the treatment of ED, a significant proportion of patients is resistant to this treatment and this continues to lead the search for alternative pharmacologic strategies. It is well known that intracellular calcium levels regulate a large number of processes in the cell and that there are several different mechanisms to control the ability of the cell to increase or reduce its calcium levels. Store-operated calcium entry (SOCE) and its key players, stromal interaction molecule (STIM) and Orai calcium channels have been proposed as emergent therapeutic targets in cardiovascular pathophysiology. Taken this in account, the authors aimed to evaluate the contribution of STIM/Orai to human penile tissue contraction and to analyze the influence of ED on STIM/Orai signalling at functional and expression levels in human penile vascular tissues. They dissected human penile resistance arteries (HPRA) and human corpus cavernosum (HCC) from cavernosal specimens from 30 organ donors without history of ED (No ED) and from 48 patients with ED undergoing penile prosthesis insertion and functionally evaluated them in wire myographs and organ chambers, respectively. Expression of STIM-1, Orai1, and Orai3 in HCC was localized and quantified by immunofluorescence. They found that inhibition of Orai channels significantly reduced norepinephrine induced contractions in both HCC and HPRA from either No ED or ED subjects, but the effects were more marked in ED. Thromboxane-induced contractions were reduced and neurogenic contractile and relaxant responses modulated by Orai inhibition in penile tissues from patients with ED. In fact, addition of YM-58483 (Orai channels inhibitor) concentration dependently relaxed precontracted HPRA and HCC. These relaxations were significantly more pronounced in tissues from patients with ED. All HCC specimens displayed expression of STIM-1, Orai1, and Orai3. Significantly increased expression of Orai1 and Orai3 but not STIM-1 was observed in patients with ED. The authors concluded that the STIM/Orai signaling system is functionally enhanced in the HCC and penile arteries from men with ED

contributing to hypercontractility that could hamper the adequate process of erection. Although a causal relationship could not be assured, functional hyperactivity of the STIM/Orai system could be related to increased expression of Orai 1 and Orai 3 channels in penile tissue from men with ED, allowing the authors to suggest STIM/Orai signaling inhibition as a potential therapeutic target in the future management of ED.

Gu X, Thakker PU, Matz EL, et al. Dynamic Changes in Erectile Function and Histological Architecture After Intracorporal Injection of Human Placental Stem Cells in a Pelvic Neurovascular Injury Rat Model. J Sex Med. 2020; 17; 400-411

Although use of nerve-sparing techniques is often described, rates of post-Radical Prostatectomy (RP) erectile dysfunction (ED) are reportedly as high as 90%, likely due, in part, to periprostatic and cavernous nerve (CN) damage. Clinical interventions have traditionally been limited to managing the chronic form of ED with phosphodiesterase-5 inhibitors, intracavernosal injections, vacuum devices, and penile prostheses. The human placenta provides a bountiful and noncontroversial source of stem cells which have the potential for regeneration of injured tissue. In this study the authors aimed to determine the effect of human placenta derived stem cells on erectile function recovery and histological changes at various time points in a cavernous nerve injury rat model and to study the fate of injected stem
cells throughout the regenerative process. Human placental stem cells (PSCs) were dual labeled with monomeric Katushka far red fluorescent protein (mKATE)-renLUC using a lentivirus vector. A pelvic neurovascular injury induced erectile dysfunction model was established in male, athymic rats by crushing the cavernous nerves and ligating the internal pudendal neurovascular bundles, bilaterally. At the time of defect creation, nonlabeled PSCs were injected into the corpus cavernosum. The phosphate-buffered saline treated group served as the negative control group, and age-matched rats (age-matched controls) were used as the control group. Erectile function, histomorphological analyses, and Western blot were assessed at 1, 6, and 12 weeks after model creation. The distribution of implanted, dual-labeled PSCs was monitored using an in vivo imaging system (IVIS) and implanted cells were further tracked by detection of mKATE fluorescence in histological sections. They found that the ratio of intracavernous pressure to mean arterial pressure significantly increased in PSC-injected rats compared with phosphate-buffered saline controls ($P < 0.05$) at the 6- and 12-week time points, reaching 72% and 68%of the age-matched control group, respectively. Immunofluorescence staining and Western blot analysis showed significant increases in markers of neurons (84.3%), endothelial cells (70.2%), and smooth muscle cells (70.3%) by 6 weeks in treatment groups compared with negative controls. These results were maintained through 12 weeks. IVIS analysis showed luminescence of implanted PSCs in the injected corpora immediately after injection and migration of cells to the sites of injury, including the incision site and periprostatic vasculature by day 1. mKATE fluorescence data revealed the presence of PSCs in the penile corpora and major pelvic ganglion at 1 and 3 days postoperatively. At 7 days, immunofluorescence of penile PSCs had disappeared and was diminished in the major pelvic ganglion. The authors concluded that placenta-derived stem cells may represent a future treatment to mitigate against development of erectile dysfunction after radical prostatectomy or other forms of pelvic injury.

PREMATURE EJACULATION

Zhang QJ, Yang BB, Yang J, et al. Inhibitory Role of Gamma-Aminobutyric Receptors in Paraventricular Nucleus on Ejaculatory Responses in Rats. J Sex Med. 2020; 17: 614-622

Ejaculation is regulated by complex neurophysiological mechanisms. More and more attention has been paid to the role of Sympathetic Nervous System (SNS) activity in the pathogenesis of ejaculation disorders. The paraventricular hypothalamic nucleus (PVN) is not only involved in controlling ejaculation reflexes but also an important region for the generation and integration of SNS activity. It is known that γ-aminobutyric acid (GABA) in the PVN inhibits sympathetic outflow and both GABA-A receptors and GABA-B receptors are involved in this action. Several studies have indicated that GABAergic neurotransmission is related to inhibitory processes involved in male sexual behaviour but no previous studies have explored the correlation between GABA receptors in the PVN and ejaculatory behaviour. The authors aimed to investigate whether differences in ejaculatory behaviour of rats were associated with the state of SNS activity and GABA receptor expressions in the PVN of the hypothalamus and the effects of GABA receptors in the PVN on ejaculatory behaviour. They used Sprague-Dawley rats divided, based on ejaculatory performance, into "sluggish," "normal," and "rapid" ejaculators. PVN microinjection was performed to evaluate the role of GABA receptors on sexual behaviour. Compared with "normal" rats, the "rapid" group ejaculated more times with shorter latency and had lower expression and distribution of both GABA-A and GABA-B receptors, while the opposed results appeared in the "sluggish" group. The norepinephrine level was successively increased among "sluggish", "normal" and "rapid" rats and correlated with ejaculation frequency and ejaculation latency. In addition, bilateral microinjection of the GABA-A and GABA-B receptor agonist (isoguvacine and baclofen) into the PVN both significantly prolonged the intromission latency and inhibited ejaculation, which could be blocked by antagonist gabazine and CGP-35348, respectively. Vigabatrin, the GABA transaminase inhibitor, caused a significantly reduced ejaculation frequency and extended ejaculation latency in rats, which could be offset by simultaneous injections of gabazine and CGP-35348. The authors concluded that ejaculation behaviours in male rats are associated with SNS activity and could be regulated by GABA receptors in the PVN, which may be of assistance in the treatment of ejaculation disorders in the future.

PEYRONIE'S DISEASE

Antoniassi T, Fácio Jr FN, Spessoto LCF, et al. Anti-fibrotic Effect of Mycophenolate Mofetil on Peyronie0s Disease Experimentally Induced with TGF-β. Int J Impot Res. 2020. 32: 201-206

Peyronie's disease (PD) is defined as acquired fibrosis of the tunica albuginea, which can result in a curved penis with
pain and/or erectile dysfunction. Besides the proliferation of fibroblasts and changes in the structure of elastin, a fibrous plaque occurs with PD that contains excessive amounts of collagen. Mycophenolate mofetil (MMF) is an immunosuppressant drug used to prevent the rejection of transplanted organs and has demonstrated

some effectiveness in the prevention of fibrosis in autoimmune diseases. MMF diminishes collagen synthesis and fibroblast activity. As transforming growth factor-β (TGF-β) plays an important role in the production of collagen by fibroblasts, the reduction in fibroblasts by MMF could assist in the interruption of the fibrotic process in PD. The aim this study was to evaluate the histological, histochemical, and stereological changes caused by MMF on the tunica albuginea of rat penises submitted to an injection of TGF-β for the induction of PD. The authors used twenty adult male Wistar rats and divided them into four groups: Control group; TGF-β group (TGF-β injection); MMF-7d group (treated with MMF 7 days after induction with TGF-β); and MMF-30d group (treated with MMF 30 days after induction with TGF-β). The steorological evaluation included the relative volume of different types of connective fibres of the tunica albuginea. The histochemical analysis revealed the fragmentation and degradation of elastin in the tunica albuginea. This process was partially reversed in the MMF-7d group and a situation very close to normality was observed in the MMF-30d group. In the collagen III/collagen I ratio it was observed increase in this ratio in the TGF-β (59.4 ± 5.53) and MMF-7d (49 ± 18.2) groups and a decrease in the MMF-30d group (28.7 ± 4), approaching normality. The authors concluded that the injection of TGF-β promoted fibrotic alterations in the penile tunica albuginea in Wistar rats corresponding to PD and that MMF acted as a regenerating anti-fibrotic agent.

Hakim L, Fiorenzo S, Hedlund P, et al. Intratunical Injection of Autologous Adipose Stromal Vascular Fraction Reduces Collagen III Expression in a Rat Model of Chronic Penile Fibrosis. Int J Impot Res. 2020; 32: 281-288

Fibrosis is defined by an excessive accumulation of extracellular connective tissue proteins (extracellular matrix (ECM)) such as collagen, elastin and fibronectin. Typically, ECM aggregation is an indispensable and reversible phase of the wound healing process. It can, however, progress into long-lasting fibrotic response if the wound healing process itself becomes deregulated. Fibrosis represents the final, usual pathological result of many chronic inflammatory conditions. Peyronie's Disease (PD) is an acquired fibrotic disorder involving the tunica albuginea (TA) of the penis. Previous studies have shown that the injection of adipose stem cells and stromal vascular fraction (SVF) into the TA during the inflammatory phase in a rat model of PD prevented the development of TA fibrosis. The aim of this study was to investigate whether local injection of SVF could reduce established fibrosis in a rat model of chronic phase of PD. Eighteen-male 12-wk-old Sprague-Dawley rats were divided in three equal groups: sham, PD without treatment (PD) and PD treated with SVF(PD-SVF). Sham rats underwent 2 injections of vehicle into the TA one month apart. PD rats underwent TGF-β1 injection and injection of vehicle one month later. PD-SVF rats underwent TGF-β1 injection followed by SVF (1-million cells) one month later. One month after the last treatment, the animals, n = 6 rats per group, underwent measurement of intracorporal and mean arterial pressure during electrostimulation of the cavernous nerve. Following euthanasia, penises were harvested for in-vitro study. They found that erectile function was not statistically significantly different between groups. They also found that PD animals developed subtunical areas of fibrosis and elastosis with upregulation of collagen III protein. These fibrotic changes were reversed after injection of SVF so the authors concluded that local injection of SVF reverses TA fibrosis in a rat model of chronic phase of PD.

PRIAPISM

Cinar O, Bolat MS, Erdem S, et al. The Effect of an Antifibrotic Agent, Pirfenidone, on Penile Erectile Function in an Exerimental Rat Model of Ischemic Priapism. Int J Impot Res. 2020. 32: 232-238

Erectile dysfunction (ED) is a well known complication of ischemic priapism (IP) and, to date, no effective medical approach for this condition has been described. The aim of the authors in this study was to evaluate the anti inflammatory, antifibrotic, and antioxidant effects of pirfenidone (PFD) on cavernosal tissue in a rat model of IP. Forty-eight male albino rats were randomized into four groups (n=12 in each group): no IP (group 1); IP for 1 h, followed by intracavernosal pressure (ICP) measurements using electrical cavernous nerve stimulation (CNS) (group 2); IP for 1 h, followed by ICP measurements using electrical CNS 6 weeks later (group 3); and IP for 1 h, oral PFD (30mg/kg once daily) treatment by oral gavage, followed by ICP measurements using electrical CNS 6 weeks later (group 4). Malondialdehyde (MDA) and reduced glutathione levels were measured spectrophotometrically and in a histological evaluation, cavernosal collagen/smooth muscle ratios were calculated. They found that the intracavernosal pressure values of group 1 were higher than those of groups 2 and 3 but similar to those of group 4. The mean MDA level was significantly higher in group 3, as compared with that in group 4. The mean collagen/smooth muscle ratio in groups 1–4 was 24%, 42%, 65%, and 48%, respectively. They concluded that PFD reduced cavernosal fibrotic activity and improved erectile function in this rat model of IP and suggested that PFD may represent a new treatment option in IP approach.

ANATOMY & PHYSIOLOGY

Allen K, Wise N, Frangos E and Komisurak B. Male Urogenital System Mapped Onto the Sensory Cortex: Functional Magnetic Resonance Imaging Evidence. J Sex Med. 2020. 17: 603-613

Since the projection of the human male urogenital system onto the paracentral lobule has not previously been mapped comprehensively, the authors aimed to map specific urogenital structures onto the primary somatosensory cortex toward a better understanding of sexual response in men. They used functional magnetic resonance imaging to map primary somatosensory cortical responses to self-stimulation of the penis shaft, glans, testicles, scrotum, rectum, urethra, prostate, perineum, and nipple. They further compared neural response with erotic and prosaic touch of the penile shaft.

The authors identified the primary mapping site of urogenital structures on the paracentral lobule and identified networks involved in perceiving touch as erotic. They concluded that this study offers a comprehensive mapping of male genital components to the paracentral lobule and that they have provided evidence of differential projection of light touch vs pressure applied to the penile shaft, suggesting differential innervation of its superficial, vs deep structure.

Similar to the response in women, they found nipple projection to genital areas of the paracentral lobule. They also provided

evidence of differential representation of erotic and nonerotic genital self-stimulation, the former activating sensory networks other than the primary sensory cortex, indicating a role of top-down activity in erotic response. These findings help to identify key neural areas that respond to urogenital self-stimulation in men, and areas responsible for "erotic" arousal which may provide potential target areas for treatment of urogenital and sexual arousal disorders in men.

COVID-19

Pan F, Xiao X, Guo J, et al. Noe Evidence of Severe Acute Respiratory Syndrome – Coronavirus 2 in Semen of Males Recovering from Coronavirus Disease 2019. Fertil Steril. 2020. 113: 1135-1139

Although viral transmission occurs predominantly through respiratory droplets, severe acute respiratory syndrome (SARS)–coronavirus 2 (CoV-2) has been isolated in blood samples and faeces from patients with coronavirus disease 2019 (COVID-19), raising questions about viral shedding in other bodily fluids, including semen, as well as alternative modes of transmission. In this study the authors aimed to describe SARS CoV-2 in seminal fluid of patients recovering from COVID-19 and to describe the expression profile of angiotensin-converting enzyme 2 (ACE2) and Transmembrane Serine Protease 2 (TMPRSS2) within the testicle. They studied 34 adult Chinese males diagnosed with COVID-19 through confirmatory quantitative reverse transcriptase–polymerase chain reaction (qRT-PCR) from pharyngeal swab samples.

The authors found that 6 patients (19%) demonstrated scrotal discomfort suggestive of viral orchitis around the time of COVID-19 confirmation. SARS–CoV-2 was not detected in semen after a median of 31 days from COVID-19 diagnosis. Single-cell transcriptome analysis demonstrated sparse expression of ACE2 and TMPRSS2, with almost no overlapping gene expression. These results are reassuring regarding possible viral transmission through semen although the fact that these men were not in the peak of acute infection and only had mild symptoms could raise the question as if the sames results would have been found at earlier time points or higher viral loads as pointed by Michael Eisenberg in the same issue.

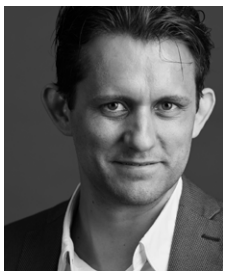
Li D, Jin M, Bao P, et al. Clinical Characteristics and Results of Semen Tests Among Men With Coronavirus Disease 2019. JAMA Netw Open. 2020; 3: e208292.

In this study the authors enrolled a total of 38 patients for semen testing. Of these 38 participants who provided a semen specimen, 23 participants (60.5%) had achieved clinical recovery and 15 participants (39.5%) were at the acute stage of infection. Results of semen testing found that 6 patients (15.8%) had results positive for SARS-CoV-2, including 4 of 15 patients (26.7%) who were at the acute stage of infection and 2 of 23 patients (8.7%) who were recovering, but there was no significant difference between negative and positive test results for patients by age, urogenital disease history, days since onset, days since hospitalization, or days since clinical recovery. The authors conclude that, if it could be proved that SARS-CoV-2 can be transmitted sexually in future, larger studies, sexual transmission might be a critical part of the prevention of transmission, especially considering the fact that SARS-CoV-2 was detected in the semen of recovering patients. Abstinence or condom use might be considered as preventive means for these patients. These findings also alert for the need to conduct studies monitoring fetal development.

Ma L, Xie W, Li D, et al. Effect of SARS-CoV2 Infection Upon Male Gonadal Function: A Single Center Based Study. medRxiv. 2020. 2020. 2003.2021.20037267

ACE2, the receptor for entry into the target cells by SARS-CoV-2, was found to abundantly express in testes, including spermatogonia, Leydig and Sertoli cells. However, there is no clinical evidence about whether SARS-CoV-2 infection can affect male gonadal function so far. In this study, the authors compared the sex-related hormones between 81 reproductive-aged men with SARS-CoV-2 infection and 100 age-matched healthy men, and found that serum luteinizing hormone (LH) was significantly increased, but the ratio of testosterone (T) to LH and the ratio of follicle stimulating hormone (FSH) to LH were dramatically decreased in males with COVID-19. Besides, multivariable regression analysis indicated that c-reactive protein (CRP) level was significantly associated with serum T:LH ratio in COVID-19 patients. They concluded that this study provided the first direct evidence about the influence of medical condition of COVID-19 on male sex hormones, alerting more attention to gonadal function evaluation among patients recovered from SARSCoV-2 infection, especially the reproductive-aged men.

Have you read? Best of the Best. Cinical Research.



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COVID-19 AND SEXUAL MEDICINE

Cocci A, Presicce F, Russo G et al. How Sexual Medicine is Facing the Outbreak of COVID-19: Experience of Italian Urological Community and Future Perspectives. IJIR 2020 [published online, April 14]

This paper points out the pitfalls that COVID-19 created in the Italian scenario since it was one of the most European affected countries. The shortage of health personnel to manage the emergency has been so evident that it was necessary to allocate even urologists to departments intended for the management and treatment of patients with COVID-19. Similarly, in the worst scenarios, urological and other nonmedical specialization departments have been turned into medical departments due to the lack of beds. Shared international strategies are important to avoid potential collateral damages from the pandemic in patients with urological diseases.

Tang K, Gaoshan J, Babatunde A. Sexual and Reproductive Health (SRH): A Key Issue in the Emergency Response to the Coronavirus Disease (COVID-19) Outbreak. Reproductive Health 2020; 17: 59

SRH and rights is a significant public health issue during the epidemics. The novel coronavirus is new to humans, and only limited scientific evidence is available to identify the impact of the disease COVID-19 on SRH, including clinical presentation and outcomes of the infection during pregnancy, or for persons with STI/HIV-related immunosuppression. Beyond the clinical scope of SRH, we should not neglect the impacts at the health system level and disruptions or interruptions in regular provision of SRH services, such as pre and postnatal checks, safe abortion, contraception, HIV/AIDS and STIs. Furthermore, other aspects merit attention such as the potential increase of gender-based violence and domestic abuse, and effects of stigma and discrimination associated with COVID-19 and their effects on SRH clients and health care providers. Therefore, there is an urgent need for the scientific community to generate sound clinical, epidemiological, and psychosocial behavioral links between COVID-19 and SRH and rights outcomes.

Turban JL, Keuroghlian AS, Mayer KH. Sexual Health in the SARS-CoV-2 Era. Ann Intern Med 2020. doi:10.7326/M20-2004 [published online, May 8]

Table. **Sexual Practices During the SARS-CoV-2 Era and Patient Resources**

Sexual Approach	Summary
Sexual abstinence	Low risk for infection, though not feasible for many
Masturbation	Low risk for infection Safe masturbation tips (Planned Parenthood): https://www.plannedparenthood.org/learn/sex-pleasure-and-sexual-dysfunction/masturbation
Sexual activity via digital platforms, such as the phone or video chat	Patients should be counseled on the risk for screenshots of conversations or videos and sexual extortion Minors should be counseled on potential legal consequences if they are in possession of sexual images of other minors Minors should be counseled on the risks for online sexual predation, which has increased since the pandemic began Speaking with children about sexual risk online during COVID-19 (Scientific American): https://www.scientificamerican.com/article/the-coronavirus-pandemic-puts-children-at-risk-of-online-sexual-exploitation/
Sex only with those with whom one is self-quarantined	Patient is at risk for infection from sex partner if they have been exposed while outside the home Patient is at risk for infection from an asymptomatic SARS-CoV-2–infected partner
Sex with persons other than those with whom one is self-quarantined	Patient should be counseled on the risk for infection from partners, as well as risk reduction techniques that include minimizing the number of sexual partners, avoiding sex partners with symptoms consistent with SARS-CoV-2, avoiding kissing and sexual behaviors with a risk for fecal-oral transmission or that involve semen or urine, wearing a mask, showering before and after sexual intercourse, and cleaning of the physical space with soap or alcohol wipes COVID-19 and Your Sexual Health (Fenway Health): https://fenwayhealth.org/wp-content/uploads/C19MC-11_Sex-and-COVID-19-Materials_flyer2.pdf Guidance on COVID-19 and sexual health (New York City Department of Health): https://www1.nyc.gov/assets/doh/downloads/pdf/imm/covid-sex-guidance.pdf
Additional resources Building Health Communities Online – Sex Partner Notification Platform: https://tellyourcontacts.org/ What to Know About HIV and COVID-19 (Centers for Disease Control and Prevention): https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/hiv.html COVID-19 Command Center for STD Programs(National Coalition of STD Directors) https://www.ncaddc.org/resource/covid-command-center-for-std-programs/	

COVID-19 = coronavirus disease 2019; SARS-CoV-2 = severe acute respiratory syndrome-coronavirus-2; STD = sexually transmitted disease.

This article published in an Internal Medicine journal intent to produce recommendations about sexual practices during SARS-CoV-2 pandemic:

Baldasserre E. An Andrologist in the Front Line COVID-19 Team. IJIR 2020 [published online, May 19]

This paper describes the journey of an Italian andrologist from Valle D'Aosta during the SARS-COV-2 outbreak and how the wards were adapted to treat the infected patients. The author gives some tips about how can an andrologist work in a COVID-19 area and how it's possible to make a real contribution in supporting and treating patients.

Torremade J, Martinez-Salamanca JI. Challenges in the Practice of Sexual Medicine in the Time of COVID-19. J Sex Med 2020 1-3 [article in press, May 5]

From the spanish point of view, the COVID-19 surge forced health-care systems to elaborate contingency plans and restructure their facilities in order to cope with the peak of coronavirus cases in the best possible conditions. Torremade and Martinez-Salamanca underline the role of telemedicine for caring of the patients and its advantages in such a pandemical crisis as a low-cost resource and flexible follow-up adapted to the needs of the patient. On the other hand, many operating rooms have been converted into intensive care units with priority given only to emergencies and oncologic surgeries which couldn't be delayed, according to

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different societies recommendation. In the field of andrology and sexual medicine only testicular cancer and cryopreservation were considered procedures that couldn't be delayed. This will result in an increase in surgery waiting lists with a significant impact on the quality of life of untreated patients. Sexual medicine departments will need to adapt their surgical programs and come up with efficient models that absorb the accumulated demand efficiently and use strategies based on minimally invasive procedures. Models based on outpatient clinics also seem more necessary than ever as they reduce the contact of the patient with the hospital and therefore reduce the risk of contact between patients and professionals. Meanwhile residency training and fellowship programs have been drastically affected (between 41,1% and 81,2% for clinical activities and 44,2% to 62,1% for surgical activities. Congresses and scientific events had to be canceled, postponed of changed to virtual format which may be the main source of training during times of pandemic. Talking about research there were many limitations and interruptions on ongoing studies with the consequent delay of its results. The predicted economic crisis may limit public and private resources allocated to research and the field of sexual medicine must be prepared for an environment where obtaining resources will become more competitive.

Luria M and Nesher SP. Challenges in the Practice of Sexual Medicine in the Time of COVID-19. J Sex Med 2020 1-3 [article in press, May 10]

An expert opinion document from Israel about the coronavirus outbreak and its influence on sexual health and function. The authors underline the lack of scientific-based evidence in this specific field. The psychological impact of the quarantine and the viral disease has developed an entire spectrum of emotions while some people enjoy the slower pace life while some cannot wait to go back to routine. Some have increased sexual desire while other have none. While on quarantine sexual behaviors might have changed and may include the increase of pornography-watching as reported by Pornhub. As advocated by NYC Health Department, masturbation could be the safest sex practice during these times. Some specific populations as older adults may have a more impaired sexual function even after the end of isolation as they have higher incidence of sexual dysfunction and may not have easy access to medical facilities or telemedicine. Orthodox Jewish communities might also be confronted with religious dilemmas since intimate relations between couples are vital and male masturbation is not allowed. In the sexual medicine and therapeutic setting there are concerns and difficulties about the use of telemedicine in this particular area while some patients are refraining from getting medical attention to acute and chronic problems. On the other hand, "bad times bring out the best in us" and it's believed that the field of sexual medicine can grow from this being more flexible, adaptable and creative and the authors think that the current situation may facilitate the inclusion or extension of sexual medicine into the curricula of medical schools and residency programs and the validation and expansion of sexual well-being in the broadest sense of the word.

Miranda EP, Nascimento B, Torres LO, Glina S. Challenges in the Practice of Sexual Medicine in the Time of COVID-19. J Sex Med 2020 1-3 [article in press, May 13]

Sexual medicine practice was also significantly impacted in Brazil with decreasing consultations and procedures. Nonetheless, many patients were in profound suffering due to sexual complaints and urged to obtain medical counseling despite the critical global situation and therefore, given the link between mental and sexual health it is expected that patients may be at a greater risk of decompensating preexisting sexual dysfunctions. On the other hand, predictable economic recession has the potential to undermine accessibility to sexual medicine services mainly in the private setting and consequently impact the income of many professionals. During the pandemic many sexual medicine experts were allocated to work in the frontline and public sexual medicine referral centers have been closed down with a projected overloading on the public system which will be greater as the longer the situation lasts. Non regulation of telemedicine is a barrier for patients, providers and insurance companies and may also undermine the doctor-patient relationship due to lack of privacy, overheard conversations and emotional bond with the professional. The impact extends to elective surgeries, follow-ups or even academic and research endeavors. The bright side of new technologies is that they can overcome the lack of physical contact in the future and long-distance patients can have easy access to sexual medicine experts. As interviews are the main core of sexual medicine practice, telemedicine might be more easily applied within our specialty. In addition, other professionals such as psychologists and nutritionists have been allowed to perform online consultations for years, and their successful experience in Brazil could be a model for sexual medicine to build on. Medical conferences may also become hybrid and benefit from online participation of both lecturers and attendees thus reducing some costs and increase attendance.

Carvalho J, Pascoal P. Challenges in the Practice of Sexual Medicine, Sex Therapy, and Sexual Counseling in the Time of COVID-19. J Sex Med 2020 1-8 [article in press, May 19]

This paper gives an expert opinion about clinical sexology challenges and produces recommendations in the context of COVID-19 and about issues regarding clinicians' professional demands (to establish guidelines and evaluation of e-Health protocols implemented in sexual medicine as well to provide formative and networking possibilities), societal dimensions (to promote gender equality and facilitate access to people at risk of sexual victimization, discrimination, or any form of social exclusion based on gender or sexual orientation), relationship dimensions (to consider new family configurations and specific stressors resulting from COVID-19 like unemployment, domestic overload, endorsement of new roles within the family system; to consider and normalize partners' expectations about relationships' dynamics during crisis, including discrepancies in sexual desire or any form of sexual expression; to consider lack of privacy, forced separation of intimate partners, absence of usual erotic cues, or lack of partner; to consider intimate abusive relationships) and individual dimensions (to consider the comorbidity between mental health problems like depressive states and sexual dysfunction and differentiate sexual complaints from sexual symptoms emerging within primary psychopathological conditions due to COVID-19; to consider cognitive distraction during sexual activity with a special focus on body image issues, contamination worries, or any theme resulting from the

current scenario; to consider the interplay role between emotional regulation, dysfunctional coping mechanisms like alcohol consumption or out of control pornography consumption and risky sexual behaviors or violence).

> Taniguchi H, Hisasue S, Sato Y. Challenges in the Practice of Sexual Medicine in the Time of COVID-19 in Japan. J Sex Med 2020 1-2 [article in press, May 29]

In February 2020 Japan ranked as the second highest in the number of COVID-19 cases, after the Diamond Princess cruise ship docked at Yokohama port but the country has rapidly contained the surge of coronavirus which increased the interest on why Japan has such low numbers of COVID-19 despite its high population density (Tokyo has 2.4 times higher population density than New York) and aged society. Some reasons were speculated such as Japanese cultural issue, immunity, ACE-2 receptor expression, HLA with immune resistance and BCG vaccination. Regarding to Japanese customs they do not involve handshaking, hugging or kissing when greeting. In addition, many Japanese wear cloth or paper face masks in the winter to avoid transmission of respiratory infections. From the point of view of sexuality, it is suggested that Japan is the country with least frequent sexual intercourse in the world. With the outbreak of COVID-19 the Japanese government decided to apply health insurance coverage for online medical treatment from April. Patients could get their medication through their mails. Patients undergoing elective surgeries started to be submitted to preoperative PCR test while patients in need of an emergency surgery should undergo a lung CT-scan as well. Prioritizing health care the International Olympic Committee decided to postpone the Olympics and Paralympics in Japan to the next year. WMSM 2020 in Yokohama was also rescheduled to November 15-17th, 2021.

> Li W, Li G, Xin C, et al. Changes in Sexual Behaviors of Young Women and Men During the Coronavirus Disease 2019 Outbreak: A Convenience Sample from the Epidemic Area. J Sex Med 2020 1-4 [article in press, April 22]

This study aimed to obtain a preliminary understanding of the changes in people's sexual behavior, as a result of the pandemic, and explore the context in which they manifest. A sample of 270 men and 189 women completed an online study-specific questionnaire. While there was a wide range of individual responses, the results showed that 44% of participants reported a decrease in the number of sexual partners and about 37% of participants reported a decrease in sexual frequency. During the height of the COVID-19 outbreak, overall sexual activity, frequency, and risky behaviors declined significantly among young men and women in China.

> Illiano E, Trama F, Constantini E. Could COVID-19 Have an Impact on Male Fertility? Andrologia 2020; 52: e13654

The pandemic caused by SARS- CoV-2 has led to several hypotheses of functional alteration of different organs. The direct influence of this virus on the male urogenital organs is still to be evaluated. However, some hypotheses can already be made, especially in the andrological field, for the biological similarity of the SARS-CoV and SARS-CoV2. As well as SARS-CoV, SARS CoV-2 uses the ACE2 as a receptor to enter human cells. It was found that ACE2, Angiotensin (1-7) and its MAS receptors are present, over in the lung, also in the testicles, in particular in Leydig and Sertoli cells. A first hypothesis is that the virus could enter the testicle and lead to alterations in testicular functionality. A second hypothesis is that the binding of the virus to the ACE2 receptor, could cause an excess of ACE2 and give rise to a typical inflammatory response. The inflammatory cells could interfere with the function of Leydig and Sertoli cells. Both hypotheses should be evaluated and confirmed, in order to possibly monitor fertility in patients COVID-19+.

> Jacob L, Smith L, Butler L, et al. COVID-19 Social Distancing and Sexual Activity in a Sample of the British Public. J Sex Med 2020 1-8 [article in press, May 3]

On 23rd March 2020, the UK government released self-isolation/social distancing guidance to reduce the risk of transmission of SARS-CoV-2. The aim of this article was to investigate, through an online survey, the levels and correlates of sexual activity during COVID-19 self-isolation/social distancing in a sample from the UK under such official guidance. Sexual activity was measured using the following question: "On average after self-isolating how many times have you engaged in sexual activity weekly?" In a sample of 868 UK adults self-isolating owing to the COVID-19 pandemic, the prevalence of sexual activity was lower than 40%. Those reporting particularly low levels of sexual activity included females, older adults, those not married, and those who abstain from alcohol consumption. Interventions to promote health and well-being during the COVID-19 pandemic should consider positive sexual health messages in mitigating the detrimental health consequences in relation to self-isolation/ social distancing and should target those with the lowest levels of sexual activity.

> Newman P, Guta A. How to Have Sex in an Epidemic Redux: Reinforcing HIV Prevention in the COVID-19 Pandemic. AIDS and Behavior 2020 [published online June 4]

Sexual health is a fundamental determinant of health and wellbeing and all persons - including gay, bisexual, and other GBMSM - have the right to enjoy a safe and pleasurable sexual life with access to comprehensive information, affirmative care, and an enabling legal and sociopolitical environment. The COVID-19 pandemic threatens to disrupt HIV programs and global progress toward UNAIDS 90–90-90 targets. The unprecedented repurposing of health services and resources to address COVID-19, along with necessary restrictive public health measures, present a spectrum of psychological, sociocultural, structural, and biomedical concerns for sexual health and HIV prevention. In this *Note*, the authors draw on lessons learned from four decades of the HIV response with GBMSM communities and programs of research, to advocate carefully recalibrated, community-engaged approaches to reinforcing HIV prevention in the COVID-19 pandemic.

SEXUAL HEALTH AND TECHNOLOGIES

> Kirana PS, Gudeloglu A, Sansone A, et al. E-Sexual Health: A Position Statement of the European Society for Sexual Medicine. J Sex Med 2020 1-8 [article in press, March 12]

The aim of this document is to present the ESSM current position statement on e-sexual health which include the use of information and communication technologies for sexual health including sexual health care, surveillance, education, knowledge, and research. Quality indicators have to be applied on Web pages that provide sexual health information,

e-learning can increase educational opportunities for professionals, online treatment interventions can be effective but needs to be available to the public, and online health research can provide access to difficult to reach populations. The ESSM acknowledges the necessity for the use of information and communication technologies to meet the sexual health needs of citizens and patients and also the professional needs of sexual healthcare providers, in an evidence-based manner. ESSM also believes that e-sexual health can provide opportunities for the improvement of the sexual health of the population.

SEXUAL DYSFUNCTION

Pyke RE. Sexual Performance Anxiety. Sex Med Reviews. J Sex Med 2020; 8: 183-190.

SPA is one of the most prevalent sexual complaints; yet, no diagnosis is recognized for either gender. Thus, research into treatment has been minimal. This article intents to review (2000-2018) the prevalence of SPA and its relation to sexual dysfunctions and anxiety disorders. Compare SPA to (non-sexual) performance anxiety and social anxiety (PA/SA). SPA affects 9-25% of men and contributes to PE and psychogenic ED. SPA affects 6-16% of women and severely inhibits sexual desire. SPA causes or maintains most common sexual dysfunction. No treatments are well proven, although CBT, mindfulness meditation training, and serotonergic anxiolytics (buspirone, trazodone, gepirone) have potential, and PDE5i are effective for psychogenic ED and PE. Several phytotherapies also appear to have potential.

FEMALE SEXUAL FUNCTION

Romero-Otero J, Lauterbach R, Aversa A et al. Laser-Based Devices for Female Genitourinary Indications: Position Statements From the European Society for Sexual Medicine (ESSM). J Sex Med 2020; 17: 841-848

Laser-based technologies have been commercially marketed as "wonder treatments" without a sufficient and adequate body of evidence. In addition, on July 30, 2018, the FDA issued a warning regarding the safety of the use of laser-based devices for the following indications: vaginal "rejuvenation" or cosmetic vaginal procedures, vaginal conditions and symptoms related to menopause, urinary incontinence, and sexual function. An ESSM panel of experts aimed to perform a thorough review on these topics and summarize the results in several short statements according to the level of evidence. Despite the high heterogeneity of studies and its limitations, the committee released several statements regarding the use of laser-based devices for genitourinary indications. Available data in the clinical setting are still poor, and the impact of these technologies on vaginal symptoms and signs has not been clearly established. It is too early in the evolution and research of laser-based devices to make decisive recommendations regarding vaginal treatments. There is grave need to carry out randomized controlled trials with proper design for safety reasons, possible harm, and short/long-term benefits for the different indications studied.

TRANSGENDER SEXUAL FUNCTION

T'Sjoen G, Arcelus J, De Vries ALC, et al. European Society for Sexual Medicine Position Statement "Assessment and Hormonal Management in Adolescent and Adult Trans People, With Attention for Sexual Function and Satisfaction". J Sex Med 2020; 17: 570-584.

There is a general lack of recommendations for and basic information tailored at sexologists and other health-care professionals (HCPs) for when they encounter trans people in their practice. This expert panel prepared an up-to-date overview on trans health care with attention for sexual function and satisfaction. It is recommended that HCPs working with trans people recognize the diversity of genders, including male, female, and nonbinary individuals. In addition, HCPs assessing gender diverse children and adolescents should take a developmental approach that acknowledges the difference between prepubescent gender diverse children and pubescent gender diverse adolescents and trans adults. Furthermore, trans people seeking gender-affirming medical interventions should be assessed by HCPs with expertise in trans health care and gender-affirming psychological practice. If masculinization is desired, testosterone therapy with monitoring of serum sex steroid levels and signs of virilization is recommended. Similarly, if feminization is desired, we recommend estrogens and/or antiandrogen therapy with monitoring of serum sex steroid levels and signs of feminization. HCPs should be aware of the influence of hormonal therapy on sexual functioning and satisfaction and of potential sexual problems during all surgical phases of treatment.

MALE SEXUAL FUNCTION

Cihan A, Kazaz IO, Yildirim Ö, et al. Changing Aspects of Male Sexual Functions Accompanying Treatment of Benign Prostatic Hyperplasia with Silodosin 8 mg Per Day. J Sex Med 2020; 17: 1094-1100

This retrospective multicenter study aimed to investigate functional changes in erectile and ejaculatory aspects of male sexuality under Silodosin 8 mg per day treatment for BPH based on IPSS, PEP male and SHIM questionnaires and estimated IELT. Despite several male patients having dry orgasms due to Silodosin-induced anejaculation, the majority experienced improved erectile function in the third month of treatment.

PREMATURE EJACULATION

Alghobary M, Gaballah M, El-Kamel M et al. Oral Dapoxetine versus Topical Lidocaine as On-Demand Treatment for Lifelong Premature Ejaculation: A Randomized Controlled Trial. Andrologia 2020; 00: e13558

This trial aimed to assess the efficacy of on-demand oral dapoxetine (60 mg) versus topical lidocaine (10% spray) treatments for lifelong PE. IELT validated AIPE, SHIM and frequency of intercourse/week were recorded at the baseline and after 12 weeks treatment period of the first medication before two weeks washout period and then crossing over. Results showed that both medications significantly increased both IELT and AIPE scores compared with the baseline being significantly better with topical lidocaine (63.44 s, 179.4 s versus 21.87 s, $p < .05$). Significant decrease of SHIM score was recorded with lidocaine but not with dapoxetine. Global Efficacy Question for the patient's assessment of the effectiveness of drugs showed that lidocaine was described as being effective by 43 cases and ineffective by 12 cases, oral dapoxetine was described as being effective by 16 cases and ineffective by 39 cases. From these accumulated data, it is concluded that topical lidocaine is more effective on-demand therapy for lifelong PE compared with oral dapoxetine.

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SURGERY

Osmonov D, Christopher AN, Blecher GA, et al. Clinical Recommendations from the European Society for Sexual Medicine Exploring Partner Expectations, Satisfaction in Male and Phalloplasty Cohorts, the Impact of Penile Length, Girth and Implant Type, Reservoir Placement, and the Influence of Comorbidities and Social Circumstances. J Sex Med 2020; 17: 210-237

The aim of this study was to review the evidence associated with IPP implantation and provide clinical recommendations on behalf of the ESSM. 130 peer-reviewed studies and systematic reviews were included. The panel provided statements exploring patients and partner expectations, satisfaction in male and phalloplasty cohorts, the impact of penile length, girth and implant type, reservoir placement, the influence of comorbidities, and social circumstances. In the preoperative setting, it is fundamental to identify and interact with difficult patients with the intention of enhancing the surgeon's ability to establish the surgeon-patient relationship, reduce physical and legal risk, as well as enhancing patient satisfaction. To address this need, the mnemonic Compulsive, Unrealistic, Revision, Surgeon Shopping, Entitled, Denial, and Psychiatric ("CURSED") has been suggested to identify patients who are at high risk of dissatisfaction. The current recommendations suggest improving glycemic control in patients with diabetes. Available evidence suggests evaluating transplant recipients with the criteria of Barry, consisting of stable graft function for >6 months, avoidance of intra-abdominal reservoir placement, and low-dose immunosuppression. HIV status does not represent a contraindication for surgery. Smoking, peripheral vascular disease, and hypertension may be associated with an increased risk of revision surgery. Patients with spinal cord injury may receive IPP. Patients aged >70 years, as well as obese patients, can be offered IPP. The IPP implantation can be performed in patients with stable Peyronie's disease. Ectopic high submuscular reservoir placement can be considered as an alternative method. This ESSM position statement provides recommendations on optimization of patient outcome by patient selection, and individualized peri and intra-operative management. ESSM encourages centers to collaborate and to create prospective, multicenter registries in order to address this topic of increasing importance.

Weinberg AC, Siegelbaum MH, Lerner BD, et al. Inflatable Penile Prosthesis in the Ambulatory Surgical Setting: Outcomes From a Large Urological Group Practice. J Sex Med 2020; 17: 1025-1032

IPP surgery in outpatient freestanding ambulatory surgical centers (ASC) is becoming more prevalent as payers and health systems alike look to reduce healthcare costs. Database analysis of all patients undergoing IPP implantation by practitioners in the largest private community urology group practice in the United States from 2013 to 2019 and comparative surgical data (procedural and surgical times, need for hospital transfer from ASC) and outcomes (risk for device infection, erosion, and need for surgical revision) between ASC and hospital-based surgery groups. 923 patients were included for this analysis, with 73% having ASC-based surgery and 27% hospital-based, by a total of 33 surgeons. Median procedural (99.5 vs. 120 minutes, $P < .001$) and surgical (68 vs. 75 minutes, $P < .001$) times were significantly shorter in the ASC. While the risk for device erosion and need for surgical revision were similar between groups, there was no higher risk for prosthetic infection when surgery was performed in the ASC (1.7% vs. 4.4%). The risk for postoperative transfer of an ASC patient to the hospital was low (0.45%). In conclusion, ASC-based IPP implantation is safe, with shorter surgical and procedural times compared to those cases performed in the hospital setting, with similar functional outcomes. These data suggest no added benefit to hospital-based surgery in terms of prosthetic infection risk.

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SEXUAL MEDICINE CALENDAR

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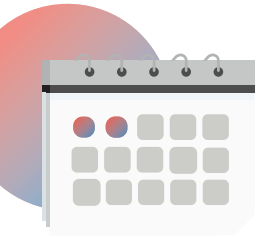

JULY

17–19 and **20–26 July 2020**

European Association of Urology (EAU) Virtual Congress and EAU Theme Week
https://eaucongress.uroweb.org/introducing-the-eau20-virtual-congress-and-theme-week

Virtual meeting

OCTOBER

10–11 October 2020

40th Congress of the Société Internationale d'Urologie (SIU)

https://www.siu-urology.org/congress-2020/information

Virtual meeting

NOVEMBER

6–10 November 2020

World Professional Association for Transgender Health (WPATH) 26th Scientific Symposium

https://www.wpath.org/education/upcoming-conferences

Virtual meeting

9–11 November 2020

The British Association of Urological Surgeons (BAUS) Annual Meeting 2020

https://www.baus.org.uk/professionals/events/1126/baus_annual_meeting_2020

In-person meeting – Birmingham

12–15 November 2020

Sexual Medicine Society of North America (SMSNA) Annual Fall Scientific Meeting

https://www.smsna.org/V1/meetings/21st-annual-fall-scientific-meeting

Virtual meeting

DECEMBER

9–12 December 2020

12th International Congress of Andrology

https://www.andrology2020.de

In-person meeting – Münster, Germany

FEBRUARY

18–20 February 2021

23rd Congress of the European Society of Sexual Medicine (ESSM)

https://www.essm-congress.org

Virtual meeting

MARCH

5–7 March 2021

18th Biennial Meeting of the Asia Pacific Society for Sexual Medicine (APSSM)

http://www.apssm.info

In-person meeting – Kaohsiung, Taiwan