



Sexual Aspects of Fertility Disturbances

11

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11.1 Introduction

Worldwide, infertility affects 8–12% of couples, with significant global disparities in figures, causes, and treatment possibilities. The affluent societies have extensive treatment modalities and relatively high infertility prevalence, with higher female age (causing lower ovarian reserve) as a relevant cause. Most poor regions have higher prevalences. In some countries of the ‘*Infertility belt*’ of sub-Saharan Africa, up to 30% of all couples cannot conceive [1], with male infertility and tubal infertility as the predominant explanations. The treatment for those conditions, the expensive reproductive technologies of assisted reproductive techniques (ART) like in vitro fertilization (IVF) and intracytoplasmic sperm injection (ICSI), are neither available nor affordable to the majority of those couples.

This chapter will not deal with the situation that quickly can develop when a couple gets confused by the lack of success and enters a vicious circle of ‘*poor sex* → *no conception* → *poor sex*’. Such ‘conception inefficiency’ will be addressed in Chap. 5 (‘Getting pregnant’).

This chapter will deal with ‘real infertility’, sometimes defined as ‘the failure to conceive after having tried for a full year’. It will start with the fertility consequences caused by sexual dysfunctions (mainly vaginismus, erectile, and ejaculatory problems) and how to deal with those situations.

The next part will shed some light on the most relevant causes of infertility, the standard diagnostic procedures, and the treatment. The following part will explain the implications for sexuality and the intimate relationship, including practical hints for prevention and solutions. The next part will address the complex situations when the couple has an extra handicap (for instance, vaginismus or sexual abuse) that

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emotionally conflicts with the invasiveness and intrusiveness of many fertility procedures. Since infertility trajectories cause much collateral damage to sexuality and intimacy, the last part will pay attention to aftercare.

11.2 Sexual Dysfunctions that Disturb Fertility

Although several sexual dysfunctions in men and women will indirectly influence fertility, treating those problems belongs to clinical sexology or sexual medicine [2]. This part will address the most relevant sexual disturbances related to not conceiving (vaginismus, serious dyspareunia preventing penetration, failing erection when penetration is needed, and no ejaculation).

11.2.1 Vaginismus

Some couples with vaginismus conceive without any penetration (but apparently with very fertile sperm). Most couples, however, will not. Many of those couples lived for years in a relationship without having intercourse. A good part of them has a satisfying sexual life (which clashes with our standard frame of reference). So, when a couple with vaginismus seeks fertility treatment, it is crucial to understand their wishes clearly. When there is no intention to have intercourse but only to become pregnant, they usually can be helped with good instructions for bedside insemination (see Table 11.1). For couples who, on the other hand, will use this moment to (finally) address the vaginismus, referral to sexology seems appropriate. A similar approach could be used for a few women with dyspareunia (painful intercourse), although serious dyspareunia usually needs sexological and gynaecological attention.

Table 11.1 Practical aspects of bedside insemination in case of vaginismus

<ul style="list-style-type: none"> • Give in advance clear oral and written instructions on the optimal elements for conceiving (see Chap. 5)
<ul style="list-style-type: none"> • Let the woman familiarize herself with vaginally inserting a 1 cc syringe or a thin catheter connected to a 2 cc or 5 cc syringe
<ul style="list-style-type: none"> • Recommend proper timing for the sexual encounter (optimal is two days and maybe again one day before ovulation)
<ul style="list-style-type: none"> • Keep the syringe at hand and create good sexual arousal for both (by whatever acceptable method)
<ul style="list-style-type: none"> • With the man in the supine position, stimulate him till he ejaculates on his belly (warm and no soap)
<ul style="list-style-type: none"> • Suck the seed in the syringe and insert it deep into the vagina (with the woman in the supine position)
<ul style="list-style-type: none"> • Stay a while like that and enjoy the intimacy of being together

11.2.2 Failing Erection

The pattern of failing erections is rather diverse.

When never getting an erection (even not when waking up), the man could need a referral to a physician. When he never has an erection with his partner, he probably needs a referral to a sexologist.

Erections can also disappear because of the challenge of wishing a child. Such fertility-related loss of erection can indicate ambivalence about becoming a father, usually in men who already have children from a previous relationship, but sometimes in other men. In those situations, the man, and sometimes the couple, may need some timeout for renegotiating parenthood.

Different is the situation where erections disappear because of the stress of the moment, as can happen during the IVF trajectory (*'This is the night syndrome'*). That stress can be very high when ovulation induction in his partner has been very troublesome. The man needs explanation, reassurance, and maybe some help from an 'erection pill' in such nervousness.

11.2.3 Ejaculation Disturbances

Several ejaculation disturbances belong to specialized care, for instance, retrograde ejaculation (the seed then gets into the bladder) in a man with spinal cord injury or diabetes mellitus. For this book, anorgasmia ('not getting an orgasm') and premature ejaculation ('far too fast') are more relevant.

Stress and inhibition can cause anorgasmia, but most cases result from antidepressant sexual side effects. More than half of the patients taking the common SSRI/SNRI antidepressants cannot reach orgasm [3]. Unfortunately, many antidepressant-prescribing HCPs do not mention this to the patient. Then, consultation with or referral back to the prescribing physician appears necessary.

Premature ejaculation is frequently disturbing for sexual pleasure and is sometimes a conception-disturbing factor. It happens relatively more in societies with a strong taboo on masturbation. Without masturbation, it is difficult to learn ejaculation control. When the man, without such control, meets on their wedding night a bride who is very scared of pain, and when they also have to prove her virginity, the stress can become so high that he ejaculates even before entering the vagina, which can be the start of a sad vicious circle.

Education and other non-pharmaceutical interventions form the usual treatment for the common premature ejaculation. For the severe pre-penetration type, one can delay ejaculation with the same drugs that cause anorgasmia. A dose of 20 mg oral paroxetine (4 h before sexual contact) will delay ejaculation, enabling intravaginal ejaculation (and maybe conception).

11.3 Some Basics of Disturbed Fertility

Infertility patterns vary over the globe and change over time. In many affluent societies, couples are older at the start of a family when fertility is already declining. The ovarian reserve drops rapidly from age 30 to 35, and sperm quality diminishes from age 40 to 45. In the less affluent societies, the leading causes are different. STIs cause high percentages of male and female infertility, and poor contraceptive opportunities cause unwanted pregnancies and septic abortions, resulting in extra female infertility. Those factors also explain the difference between primary infertility (globally $\pm 2\%$ of women) and secondary infertility after having gone through a pregnancy and delivering a live baby (globally $\pm 10\%$ of women).

Among the many different causes of male and female infertility are ‘medical factors’ and lifestyle-related factors like obesity, malnutrition, tobacco, and marijuana smoking.

Globally, the estimates for infertility causes are:

- Solely male factors ($\pm 45\%$)
- Solely female factors ($\pm 40\%$)
- Combinations of male and female factors ($\pm 15\%$), including cervical factors where a woman’s cervical mucus is incompatible with her specific partner’s semen.
- A small number of couples with unexplained infertility conceive later without any treatment.

At the start of the trajectory, careful history taking and a thorough physical examination are for both partners more or less the same. After that, the direct burden of investigations and treatment is mainly on the woman’s plate.

In men, the most common diagnostic procedures are analysis of sperm after harvesting via masturbation, via epididymal microsurgery (MESA), percutaneously (PESA), or from the testes (TESE). The most common male ART procedures are sperm cryopreservation; using sperm to impregnate a harvested ovum (IVF), and directly injecting sperm into the ovum’s cytoplasm (ICSI or IMSI).

In women, the most common diagnostic tests are hysterosalpingography, laparoscopy, cervical mucus testing, and post-coital test. The most common female ART procedures are artificial insemination of partner’s or donor sperm into the cervical entrance; intrauterine insemination (IUI); ovulation induction with medication regimes; egg retrieval (‘ovum pick-up’); IVF; and embryo transfer.

11.4 Sexual and Emotional Consequences of Disturbed Fertility

The sexuality of many couples is already compromised when entering the infertility trajectory. Not conceiving easily impairs female and male sexual identity causing low desire. Ovulation-based timing tends to reduce desire and arousal, potentially

causing dyspareunia. Subsequent medical interventions add to the decline in sexual quality. Spontaneity disappears when timing and orgasm are dictated by the physician or treatment protocol. Men can be under stress when 'forced' to sexually perform at predetermined times. Sexual intimacy gets reduced by (repeated) genital examination and by having to share details of sexual activities. As a result, the sexual relationship can get under stress. Tension and disappointment can cause mutual irritation. The message that one of them is the cause of infertility can create emotional distance. Besides, the couple's mutual contact might diminish because males and females tend to react rather differently to practical challenges and emotional deceptions.

11.4.1 Male Elements

For most men, physical examination is no big deal, but it is threatening for a small part of men because of sexual abuse experience. Such threat will increase when the sperm has to be collected directly from the epididymis. Whereas masturbation for semen sample collection is in many cultures sufficiently accepted, other cultures restrict that because of shame or religious rules. When the seed is found poor, the 'bad seed'-message is a big blow to most men and an assault on their masculine identity. In part of the men, this will cause sexual dysfunction [4] and it can impair the relationship. Even when entirely accepted, successful masturbation can become problematic when the man has to do it on command. Especially when ovulation induction has been very troublesome, having to perform can be very threatening (with much guilt and sometimes suicidal thoughts when failing to produce sperm). One can diminish the stress of that moment by (in advance obtained) cryopreserved sperm.

11.4.2 Female Elements

Women undergo many more physical examinations and treatment procedures that can interfere with their female identity, bodily integrity, quality of life, and sexuality. Hysterosalpingography, laparoscopy, intracervical insemination, intrauterine insemination, collecting cervical mucus, vaginal ultrasound to monitor the follicle development, and embryo transfer into the uterus are all intrusive and, for the majority of women, also a breach of what belonged to the intimacy between her and her partner. Those procedures are extra troublesome when there is a history of sexual abuse. But also for women from cultures where nakedness is strongly linked to loss of honour. In addition, the combination of stress and (fear of) pain can cause long-standing pelvic floor muscle tension.

Ovulation induction can have many side effects (headache, bloating, nausea, hot flashes), impairing sexuality and intimacy, which is badly needed on those difficult days. Forced ovarian hyperstimulation can have worse side effects, including abdominal pain, fast weight gain, and diarrhoea.

11.4.3 The Couple

The preoccupation with pregnancy and treatment does not help develop pleasure, joy, and relaxed sex. Men feel the imperative to have sex at ovulation, especially when recommended by a fertility specialist. Such ‘timed intercourse’ imperative can result in sexual dysfunctions and extramarital contact. In one study, 43% of men had erectile disturbances, with a quarter of them having extramarital contact(s) [5]. When ART is decided, having no more imperative to have sex can give relief. But then, with the man in the spectator role, the woman has to undergo treatment with intrusive procedures that easily interfere with her female identity, intimacy, bodily integrity, and quality of life. That is probably one reason for the higher amount of major depressive disorders during this trajectory (39% in women and 15% in men) [6]. ART attacks the relationship, which the HCP should never forget.

11.5 Dealing with the Combination of Severe Sexual Disturbance and Infertility

Whereas in the infertility trajectory, the pleasure element of sexuality becomes less relevant, other aspects of sexual functioning become very important. In IVF, it is vital that the man can produce sperm at the right time and that the woman can open her vagina for a speculum or vaginal ultrasound.

This part deals with such situations where a sexual dysfunction or a past traumatic experience can conflict with the smooth running of the infertility treatment, causing a reduced chance of conception, extra emotional damage to the couple, and frustration for the medical team [7]. Next to various medical precautions, the preparation for assisted reproduction should also anticipate reactions to high stress, such as ejaculatory performance failure and re-experience of sexual abuse.

Here, three possible disturbers will be addressed: male disturbances, vaginismus, and psychotraumatic luggage.

When dealing with such complex cases, the choreography between the couple and the fertility team can be very delicate. Couples desperately wanting a pregnancy sometimes intensely focus on a ‘quick fix’. HCPs should refrain from techniques that may speed up the process and cause long-term damage. The anorgasmic man who ‘loses’ four months in psychosexual treatment but has learned to ejaculate by himself will probably be much happier in the longer term than the man who underwent epididymal aspiration under general anaesthesia. Similarly, the woman with PTSD who ‘loses’ a year to treatment but then can undergo the procedures fully conscious, without much stress and loss of control, may be more self-satisfied and less damaged than the woman who becomes pregnant through vaginal procedures under general anaesthesia. The final target of an infertility trajectory should be a happy family with happy parenthood. Less stress and a more satisfying sexual life will keep the relationship in better order and benefit both parents’ relationship with the new child [8].

11.5.1 Male Disturbances

Whereas erection is not primarily needed in ART, ejaculation is very relevant. For IVF, one prefers fresh ejaculate, so masturbation usually has to occur in a room close to the lab. The stress of that moment can prevent erection and ejaculation. Since many men will be insecure about that, we recommend proactively motivating the man into maximum sexual stimulation (vibrator, X-rated movies of their choosing, et cetera). Real stress can be a good indication for a PDE5-inhibitor ('erection pill') taken one hour before masturbation. Every fertility unit must ensure a special room equipped with vibrators and proper erotic and X-rated stimulation available (or the possibility to access erotic material through their smartphone), where the man can masturbate without or with his partner and where he will not be disturbed.

When the stress of 'having to produce semen' at a given moment is very high, a backup with cryopreserved sperm can sometimes offer sufficient reassurance. There is another reason to pay attention to the man's stress because high stress can negatively influence semen quality. When they introduced counselling, the semen quality tended to stay good on the day of oocyte recovery [9].

11.5.2 Vaginismus

Vaginismus will not be a problem for most couples with child wish because self-insemination is a reliable solution for most. Vaginismus, however, is a significant obstacle when vaginal ultrasound, intrauterine insemination, or embryo transfer are inevitable. It seems wise to refer the woman or the couple to a clinical sexologist or an experienced pelvic floor therapist and treat the vaginismus before starting ART. But how to handle when the couple and the fertility department get caught in a 'Catch 22' situation (for instance, when the treatment has been started, and the vaginismus threatens to disturb the process)? Here are some do's and don'ts.

- General anaesthesia seems logical but tends to be very threatening to many women with vaginismus. The anxiety can go up, and the 'loss of control' easily can prolong 'vaginistic behaviour'.
- Self-hypnosis or self-relaxation techniques usually can be learned in a short period. Especially useful when combined with 'self-management'.
- Self-management. This is a reliable way to have control over the situation. For some women, a feeling of self-competence is more important than a bit of pain. Many times women can learn to introduce the speculum or vaginal probe. Treatment is much easier when the same fertility team always attends the woman (if possible, with very patient female HCPs).
- Neither anxiolytic nor muscle-relaxing drugs tend to help since losing control under medication can be a very frightening experience for many of these women.

11.5.3 Previous Sexual or Physical Abuse

For more details on the effects of trauma experience, see Chap. 24.

When harbouring memories of (sexual) trauma, interventions of assisted reproduction can be very threatening. For a traumatized woman, many terrifying associations can come up during treatment. Like laying down partly undressed, someone standing between her legs, the stress of conception insecurity, the door locked, instruments inserted in her vagina, and eventually suffering pain can suddenly break her resistance and cause vivid flashbacks. We may call the combination of a screaming or crying patient, a confused or angry husband, and a disturbed and maybe guilty team an acute emergency. Besides, this situation will impair the conception outcome [7]. Be aware that men can also be traumatized.

Since a fair amount of women have experienced sexual or physical trauma, the team should properly investigate this area before embarking on ART.

Some abused women have sufficiently addressed the trauma. They can handle everyday life and the stress of ART. Other women have PTSD (usually after chronic or repeated trauma exposure) and need a thorough assessment by a professional with sexual trauma expertise. Here, we will focus on the in-between group that functions well in everyday life as long as there are no substantial factors to create vivid flashbacks.

What can we do to prepare such a patient for ART/IVF?

- We advise against quick-fix approaches such as general anaesthesia or anxiolytics. The woman easily will experience such interventions as re-victimization (because of losing control again).
- Because keeping control is such a woman's key element, we recommend much time counselling the couple and the team on how to handle the stress of the situation. Within such a combined approach, anxiolytic medication can sometimes be helpful.
- Develop a trust-based relationship with one HCP who will be present at every procedure. The patient usually will prefer a female HCP unless a woman has abused her. When possible, we recommend that one trusted member of the fertility team performs all vaginal interventions.
- The process can be facilitated when a female psychosocial HCP counsels the woman, advises beforehand on handling the stress, is present during all procedures, and recognizes the patient's reaction pattern. For some women, the partner can have that role.
- Some patients benefit from the knowledge to control the process and interventions. One way of increasing control is, for instance, by inserting the speculum or ultrasound probe herself (and sometimes when the partner does it).
- Tools for facilitating this process are self-hypnosis ('going to a safe place'), imagery exercises, relaxation exercises (breathing exercises), meditation music, and transitional objects (like a cuddly toy) that help the woman feel that she will not be harmed.

- When the woman knows what will happen during the various steps of an intervention and is allowed (as far as feasible) to interfere (f.i. by saying ‘*Stop*’ or ‘*I need a break*’), her sense of control will increase. Such delicate choreography has to be developed by the physician and the other team members, which means it seems a prerequisite always to have the same team.
- Since control will not be feasible at some moments of the process, the patient should be prepared and learn how to handle the emotions that may surface during such a temporary lack of control. There is no blueprint for when the patient suddenly collapses emotionally. Be prepared for that possibility and inquire if the partner knows the good reaction. Whatever strategy is followed, devote ample time and attention to sorting out what happened, how to proceed, and how to prevent next time.

11.6 Cleaning Up the Mess Caused by the ART Procedures

Once the woman is pregnant, there usually follows a reduction of the emotional, relational, and sexual disturbances. However, these expectant couples remain more than average aware of how precious the pregnancy is, which can influence their sexual well-being and pleasure. After birth, they appear, in general, well-functioning parents not much different from parents with a natural-born child. That can be different regarding sexuality. The roller coaster of fertility workup and treatment, followed by a precious pregnancy, can complicate the redevelopment of sexuality just for pleasure and intimacy. So, we recommend proactively integrating this area in the closing consultation and helping the couple, whenever needed, to rebuild that vital element for their long-term relationship. After all, being ‘lovers’ is not only luxury but also part of the foundation to cope with the hassles of young parenthood.

Caring attention should go as well to the couples who remain childless. Some of them regain sex and intimacy, which becomes a vital element in continuing their relationship (with more sadness and more freedom). How to deal with childless couples strongly depends on their culture. In part of the globe, childless women are equally accepted and can have a fulfilling social life and career. However, both socially and emotionally, the burden of having no child falls in nearly all cultures on women. In many cultures, childless women will be stigmatized, discriminated against, divorced, and sometimes ostracized, even when their husbands are the cause of infertility. Research in low- and middle-income countries shows that women in infertile couples have a disproportionately high prevalence of intimate partner violence (psychological violence, physical violence, sexual violence, and economic coercion) [10]. On the individual level, childless couples, especially women, deserve gentle care and sometimes psychological expertise. On society’s level, midwives appear to be the designated professionals to commit themselves to this social injustice.

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