Aspects of Sexual Medicine

Effect of Infertility on Psychosexual Function

MAX ELSTEIN

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Introduction

The doctor may encounter infertile couples with sexual problems in a variety of clinical situations, some of which lend themselves to easy recognition while others are singularly difficult to identify. Couples with infertility have considerable stresses imposed on them when they are unable to achieve their life expectations or those which they think society requires from them. A woman who does not realize her desired ambition of motherhood feels most inadequate, especially when she is in contact with those in her environment who have done so. These pressures are compounded when sexual intercourse is expected during specific times of the menstrual cycle and when its objectives are more orientated towards conception than an expression of a loving relationship. The converse of the problem, however, is probably commoner, in which fears of unplanned pregnancy and inadequate contraceptive protection play havoc with a couple's sex life.

Many of these couples will have practised contraception for some time before trying to conceive and may have regrets at this delay. They may also harbour guilt feelings, especially if an earlier unplanned pregnancy was terminated. These are often telling contributory factors in the development of psychosexual problems in a considerable proportion of the population, perhaps 10% or more.

Thus, couples with infertility may have abnormalities of sexual function which can present in the following three ways: (1) Infertility causing psychosexual problems; (2) psychosexual problems masquerading as cases of infertility; and (3) incidental findings of psychosexual disturbances in cases of infertility.

Infertility Causing Psychosexual Problems

Many couples who may have earlier developed a satisfactory sexual relationship find that their sexual pleasure and function can become impaired when they have to perform to order.

LOSS OF LIBIDO

Libido can be decreased when sexual function is primarily relegated to a purely reproductive process. This diminution of libido seems to affect the woman more than the man. However, because her desire for pregnancy is so great she will often sublimate this inhibition into being desirous of intercourse only

at the fertile time of her cycle. While the preovulatory surge of oestrogen may have a role in determining the timing of increased sexual activity, psychological factors probably exert a greater influence than endocrine effects. In fact there are cases where knowledge of reproductive physiology has been incorrect and couples have been more active in the early postovulatory phase and even abstained when the oestrogen output has been maximal.

INHIBITION OF ORGASM

Failure to achieve orgasm is a common psychosexual problem and more frequently presents as an incidental psychosexual abnormality in cases of infertility (see below). However, sometimes a woman who previously could reach orgasm develops a state of impaired sexual responsiveness when she finds that she has been unable to conceive. The major cause for this is preoccupation with the objective of becoming pregnant, resulting in deterioration in what was previously a mutually stimulative sexual pattern.

The wife can also develop a sense of worthlessness, so that she no longer feels justified in experiencing the pleasure of orgasm. The couple's relationship can deteriorate even further when the husband tends to regard sexual intercourse as a goal-orientated exercise of delivery of semen to the appropriate site of his wife's genital tract. He might then lose his ability to be gentle and sensitive in his sexual approach.

IMPOTENCE

The development of an inability to achieve full and sustained erection occurs sometimes in a husband subjected to continual pressures to perform sexually at specific times of his wife's menstrual cycle. Erective failure can occasionally occur in any man, especially when there is an underlying cause—such as fatigue or alcohol excess or simply distraction. Excessive demands for sexual performance by an emotionally pent-up wife who is disturbed by her inability to conceive, and who may thus be losing her sexual attractiveness to her husband, may predispose to a situation where a precipitating factor, such as the after effects of a party or difficulties at work, may herald the onset of secondary impotence. Depression as such, often aggravated by their infertility, may also become manifest in this way.

The man who had a tendency to premature ejaculation as an indication of anxiety in his sexual function in the early days of his marriage would appear, from the work of Masters and Johnson,¹ to be particularly prone to this trouble (see below). Maternal or paternal dominance, a rigid orthodox religious background, or even a homosexual tendency are all cited as possible underlying factors which might predispose to the development of secondary impotence in the event of a stressful infertile marriage and its attendant increased demands for sexual activity.

Faculty of Medicine, University of Southampton, Southampton SO1 6HU

MAX ELSTEIN, M.D., M.R.C.O.G., Senior Lecturer in Human Reproduction and Obstetrics

A further stress on the male of an infertile marriage is the requirement to produce a semen specimen by masturbation for semen analysis. Many men find this distasteful and may even refuse to attend for this investigation. Since most contraceptive sheaths available contain a spermicide, use of a seminal pouch* specifically designed for this purpose helps overcome this difficulty.

Abnormalities of male psychosexual function aggravate the infertile state, because the sperm fail to be deposited at the cervix when such difficulties arise. In the woman's case, however, though these disturbances can cause distress and unhappiness and even discomfort if a pelvic congestive syndrome develops, they do not in themselves increase the failure to conceive. Masters and Johnson state that "during coition the woman has only to lie still to be physically potent," and a fulfilled sexual life is certainly not necessary for pregnancy to occur. Consequently many of the psychosexual problems experienced by women which are associated with infertility undergo spontaneous resolution when these stresses are over.

Psychosexual Problems Masquerading as Infertility

A couple may attend for advice because of their inability to conceive, yet the major factor causing their infertility is that their sexual function is not satisfactory. Often they are reluctant to admit that there is a sexual problem, and a diagnosis can be made only after a searching interview, during or after examination,⁴ or even when a couple have been observed for some time.

VAGINISMUS

Vaginismus is a psychosomatic disturbance involving the pelvic musculature resulting in spasm of the muscles of the perineum and outer third of the vagina. It may be a cause of non-consummation of marriage. Spasm of the adductor muscles of the thighs and also the extensor muscles of the back classically occurs whenever coitus, or for that matter vaginal examination is attempted. Vaginismus, serving as a protection of the patient from penile penetration, is well described by Friedman.²

Often there seems to be a fairly clear picture of sexual negativism with a submissive father, dominant mother, and submissive husband, who himself may have potency problems such as premature ejaculation, pain in the penis or testes, or even impotence.³ Psychodynamically both the husband and wife have a strong need to maintain the sexual stalemate (i.e., the non-consummation), yet they will attend the infertility clinic as part of their belief that their incapacity is due to physical abnormality or incompatibility—namely, too small a vagina or too large a penis. Furthermore, the frequency with which there is an association of impotence in the male partner with non-consummation in the female adds further credence to the postulate of the Masters and Johnson school that, in dealing with sexual dysfunction, the marital unit as an entity needs to be simultaneously evaluated and treated. This concept, of course, applies equally well to infertility whether psychosexual difficulties exist or not.

IMPOTENCE

Masters and Johnson define secondary impotence as occurring when there has been at least one instance of successful intromission, usually followed by a substantial period of effective performance and then by erectile failure, with subsequent inability to accomplish coital connexion in 25% of opportunities. Many of these cases occur in couples who had difficulties in achieving consummation, and earlier on there was often premature ejaculation. While infertility is generally the presenting symptom, their inability to have intercourse frequently

enough indicates that this disturbance in psychosexual function is the major problem.

EJACULATORY INCOMPETENCE

In this situation the husband readily achieves full penile erection and intercourse can take place, but ejaculation cannot be accomplished with the penis contained within the vagina. The development of this relatively infrequent problem, which might present in an infertility clinic, almost invariably follows psychologically traumatic events associated with sexuality such as the discovery of the wife's previous sexual experiences or infidelity or guilt feelings associated with masturbation.

Ejaculatory incompetence may be a symptom of the husband's fear of pregnancy or may end up as impotence. However, it could even be an expression of his rejection of his wife if the problem is confined to his sexual relationship with her, and it may result in annulment of the marriage.

FEARS AND ANXIETIES

A couple presenting with infertility may be disclosing only one aspect of a disturbed interpersonal relationship in which difficulties in sexual function may be prominent. The link between stress and infertility may be obscure and become evident, for example, only when a pattern of repeated abortions, with that particular couple's emotional reaction to the situation, expresses an underlying state of psychological rejection of pregnancy. However, the precise role of the psyche in causing infertility has yet to be defined in objective terms. Nevertheless, immature sexual attitudes, fears of impregnation, pregnancy, and the alleged trauma of delivery are all thought to play a part in psychogenic infertility. Advocates of various depths of psychotherapy affirm the successful management of these cases in their anecdotal writings. It is possible that an empathic and supportive attitude helps these patients overcome their psychosexual difficulties and may even allow for an improvement in their reproductive function, but objective evidence to support these claims is conspicuous by its absence.

Incidental Psychosexual Abnormalities

As in any gynaecological situation, when the couple present with infertility an adequate history may disclose a pattern of sexual function which could be regarded as abnormal. However, intervention is indicated only if the couple express discomfort or distress about their sexual function when given an adequate opportunity to do so.

NO ORGASM

If orgasm has never occurred and its absence is not missed, there would be little point in adding another dimension to this couple's problem, particularly if they are content with the status quo. However, if such a situation is discovered during evaluation of a couple's infertility and if it is causing distress or pelvic congestion, simple advice on sexual physiology and coital technique might be appropriate.

PREMATURE EJACULATION

Similarly, it is unlikely that too rapid ejaculation would cause infertility, though in extreme cases the husband might lose his ejaculate before adequate penetration. Anxieties about infertility may aggravate such a tendency. This condition is likely to be discovered during the interview, and therapy can often be quickly and efficiently instituted to improve the couple's

*Milex Products, Chicago, Illinois 60631, USA.

psychosexual function for the wife is probably also suffering from impairment of orgasm.

Clinical Approach

One of the major roles of the doctor in dealing with infertility and psychosexual problems is for him to have an *empathic, understanding, and non-judgemental attitude*, with an awareness of the difficulties facing couples in this field. He should be ready to encourage the couple to speak freely about their anxieties. It is important to help them appreciate that anxieties at an emotional level may well be illogical and confusing and strongly at odds with their intellectual knowledge. A lack of understanding of this important concept may inhibit expression of these fears and fantasies, but the expression of them may in itself have considerable therapeutic value.

The couple should be educated in reproductive physiology, advising them that fertility is optimal in the preovulatory phase and that the time of ovulation can be diagnosed only retrospectively. The doctor should try to dispel certain myths, such as that abstinence is necessary to store sperm for a single coitus at the time of the biphasic shift in the basal temperature, which usually occurs after the fertile phase anyway. Furthermore, this probably falsely boosts the semen analysis by the accumulation of sperm of which many are past their prime.

There are several diagnostic leads which would indicate to the attending clinician that psychosexual problems are present, either as a result of the infertility or as incidental finding. If the wife attends on her own and she is reluctant to involve her husband in the investigations, or she says he will refuse to participate, it is possible that their relationship may be affected by a significant psychosexual anomaly. It is always preferable, in dealing with infertility problems, to be concerned with the couple as a unit. When psychosexual difficulties coexist it is mandatory to treat the functional marital unit and at least initially to assess both partners together.

JOINT INTERVIEWING

Non-verbal communication between the couples can be observed as well as their reaction to questions about their sexual life. For example, from their replies concerning frequency of intercourse and whether they find this aspect of their life satisfactory the interviewer can readily get a fairly good idea of their relationship. When the wife goes to the adjoining room to get ready for examination is a useful opportunity for a discussion with the husband to learn about his attitudes to their problem. While the wife is being examined she may disclose anxieties and fears about her sexual function which will complement what she has intimated earlier. Then, while she is dressing, there is a further opportunity to talk to the husband to pursue any further points which may need amplification. Finally, an overview of the problem can be discussed with the couple, and therapeutic and educative processes may be instituted right away. Using this technique of joint interviewing of the couple at the beginning and end of the session, with the two individuals separately in between, the doctor can obtain a good idea if infertility is the sole problem or whether there are any psychosexual problems or if these are developing. Indeed, the complaint of infertility may cover up difficulties in their relationship, or may indicate a potentially more serious state of severe disturbance of psychosexual function or abnormal mental health, which requires referral to the appropriate specialist.

Other indications of a disturbance of psychosexual function can be obtained by asking the couple to keep a basal temperature chart and for them to attend for post-coital test. The keeping of a basal temperature chart can be worrying, but most couples suffering from infertility do manage to do it. Apart from telling the doctor about ovulation and ovarian function the frequency

and timing of intercourse are recorded, and they give the lead for a discussion on sexual matters if that is appropriate.

POST-COITAL TEST

The post-coital test is one of the most valuable and easily performed investigations in the management of infertility. In this context it provides concrete evidence of coital adequacy. However, failure to have intercourse at a specific time, especially when requested to do so, should not become the focus for sexual tension, which might become a trigger for an iatrogenically imposed impotence. In asking the couple to attend for post-coital testing an anxiety-provoking situation must be avoided.

The couple may be told that this test would provide useful information if they could make love at that particular time a short while before their attendance. Their inability to have intercourse might provide the lead for further probing to ascertain if there is psychosexual difficulty. Repeated absence of sperm in the mucus with a normal semen analysis might suggest a psychosexual disturbance such as premature ejaculation or ejaculatory incompetence or, simply, poor coital technique, or even that intercourse is not taking place.

Principles of Management

Patients attending a doctor, complaining of infertility, may experience difficulties with their sexual life as a result of the pressures and anxieties arising out of their infertility. Careful and understanding management of these patients, with due cognizance of these factors, will go a long way to obviate the appearance of sexual difficulties. Early recognition of an impairment of libido or an inhibition of orgasm may prevent the establishment of a situation which is difficult to reverse. The couple should be allowed to express their anxieties, have points of misinformation rectified, and encouraged to share with each other their concern and anxiety over sexual matters in time to prevent the development of overt sexual dysfunction. Reduction of expectations for performance when the husband is showing signs of strain are necessary to avoid the establishment of impotence.

When psychosexual problems are already established, either as a result of faulty management of infertility or masquerading in the guise of infertility, treatment may be quite daunting for the uninformed practitioner. Ability to help with these problems will depend on the skill that the doctor has developed in the recognition of them and the comfort he himself feels in dealing with them. The couple's attitudes in sexual behaviour need to be identified and help given to modify them when appropriate. Advice on the importance of adequately expressing their feelings for each other verbally, through which they can develop other mutual expressions of regard for each other without the need for sexual intercourse, leads to a rapid improvement and sense of relief from their tensions. The use of this non-specific approach to establishing so-called "sensate focus," as advocated by the Masters and Johnson school, enables most empathic doctors to deal with the simpler cases of vaginismus or fears about genital competence. The specific techniques for treating the individual sexual difficulties are beyond the scope of this article (see References). Patients with disturbed psychiatric backgrounds need to be referred to a psychiatrist with particular skills and interests in this field.

Some couples will be amenable to education, reassurance, and simple advice on attitudes to their sexuality and coital techniques; others will need definitive therapy. However, some are best left alone, especially if they are well adjusted to the status quo. As the practitioner becomes more skilful in handling these cases, he will more readily recognize those which he can deal with easily and those which will need more time or referral for expert help.

I would like to thank those of my colleagues with whom I have useful discussions and comments on the subject matter of this article.

References

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- ² Friedman, L. J., *Virgin Wives*. London, Tavistock Publications, 1962.

- ³ Ellison, C., *Journal of Psychosomatic Research*, 1968, 12, 61.
- ⁴ Sandler, B., *Journal of Psychosomatic Research*, 1969, 12, 51.

Further Reading

- Belliveau, F., and Richter, L., *Understanding Human Sexual Inadequacy*. London, Coronet Books, Hodder Paperbacks, 1971. (A practical manual which general practitioners might advise appropriate patients to read).
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- Tunnadine, L. P., *Contraception and Sexual Life*, Philadelphia, Lippincott, 1970.

Any Questions?

We publish below a selection of questions and answers of general interest

Low Sperm Count and Conception

Is insemination by normal coitus possible with a total semen count of 1 million spermatozoa in 2 ml of ejaculate? If not, would artificial insemination be successful with such a low count?

Natural insemination with such a low sperm density as this is not impossible, but the statistical odds are against it.¹ Though one might hope to be able to separate the sperm-rich first fraction of the ejaculate or concentrate the semen by means of the centrifuge artificial insemination using semen of such poor quality is seldom successful. This may be because there are often many abnormally shaped spermatozoa present and motility is poor.² For the same reasons it is not usually successful to pool a series of semen specimens in the frozen state in order to collect enough to achieve conception, for it is difficult to revive these oligospermic spermatozoa.³⁻⁵ If a patient with a low sperm count has a varicocele it should certainly be operated upon.⁶ It might be worth trying mesterolone,⁶ arginine,⁷ fluoxymesterone,⁸ or clomiphene⁹ which sometime improve sperm density and motility quite significantly, perhaps combining these with A.I.H. using centrifuged or first-fraction ejaculates. The couple should be advised that they may be in for a long series of unsuccessful attempts before achieving success.

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² MacLeod, J., and Gold, R. Z., *Fertility and Sterility*, 1951, 2, 187.

³ Silló-Seidl, G., *International Journal of Fertility*, 1972, 17, 183.

⁴ Sawada, Y., and Ackerman, D. R., in *Progress in Infertility*, ed. S. J. Behrman and R. W. Kistner, p. 731. London, Churchill, 1968.

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⁶ Zornigotti, A. W., and MacLeod, J., *Fertility and Sterility*, 1973, 24, 854.

⁷ Schellen, A. M. C. M., and Beek, J. M. A. J., in *Proceedings of the Seventh World Congress on Fertility and Sterility*, ed Hasegawa et al., p. 53. Amsterdam, Excerpta Medica. International Congress Series No. 278, 1973.

⁸ Schachter, A., Goldman, J. A., and Zukerman, Z., *Journal of Urology*, 1973, 110, 311.

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Inoculation and Psychiatric Illness

Is there any evidence that vaccination with typhoid-paratyphoid A and B vaccine, cholera vaccine, or poliomyelitis vaccine can cause psychiatric illness?

Several reports of psychiatric illnesses ascribed to administration of typhoid-paratyphoid A and B appeared in European medical journals before 1940 but there seem to have been no reports since then. Similarly, there appears to be a complete

absence of any report associating a psychiatric illness with cholera or poliomyelitis vaccination.

Diazepam and Pre-eclampsia

Is diazepam or another non-addictive drug as effective as barbiturates for hypertension in pre-eclamptic toxæmia? Are pregnant women less likely to become addicted to barbiturates than others?

In treating pre-eclampsia the object is to get the mother safely to a gestational maturity such that her baby will also be safe. The drug regimen to achieve this varies with the length of pregnancy and the severity of the pre-eclamptic process, measured mainly by the blood pressure. There is no special merit of one method of treatment over another. More important is that the doctor should become familiar with one system and its side effects and failures, rather than experiment with several. But if a new drug is to be introduced by an individual doctor, then he must be as sure as he can be that there will be no undue effects upon the fetus. There is some evidence that the prolonged use of diazepam may cause chromosome breakages in some cells. This should spell caution in anything but the smallest dose in pregnancy and that only over a very short time.

Addiction to any drug is complex. There are many physiological and psychological variables in pregnancy, but probably there is no hard evidence that barbiturate addiction is less common in pregnancy than at other times. One theory is that enzyme induction in the liver in pregnancy may be a reason for barbiturate metabolism to be increased and perhaps therefore help in the prevention of addiction.

Inoculation "Gun"

What are the hazards of using a "gun" for mass inoculation?

The main hazards of mass vaccination by jet injectors are:

(1) Intradermal deposition of vaccine that should be injected subcutaneously. Intradermal deposition of an aluminium-adsorbed vaccine, for example, may give rise to a local granulomatous lesion with scarring or keloid formation. This is avoided by ensuring that the pressure exerted behind the inoculum is sufficient to impel it through the skin and that the jet nozzle is held against and at right angles to the skin.

(2) Bleeding: if the nozzle is not held correctly the cut made in the skin may cause bleeding.

(3) Bacterial contamination of the vaccine due to inadequate sterilization of the relevant parts of the injector.

(4) The risk, though remote, of transmitting serum hepatitis should not be ignored.