Ensuring that having a vasectomy is an informed decision

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Vasectomy or male sterilisation is the severing or electrocaugulation of the vas deferens connecting the testes to the seminal vesicles and urethra. It is a safe and highly effective operation that offers a permanent method of contraception. Reversal of a vasectomy is possible but can be difficult and is not always successful. The permanency of the procedure means that careful counselling is essential and, where appropriate, should be conducted with both partners.

Vasectomy or male sterilisation is the surgical operation of severing or electrocaugulation (Marie Stopes method) of the two ducts (vas deferens) that connect the testes to the seminal vesicles and urethra (Fig 1). The operation can be performed under either a local or a general anaesthetic. The procedure is quick and easy and is 99.9 per cent effective as a method of contraception. It has no effect on sexual functioning.

### Counselling

Male or female sterilisation requires counselling because the outcome of the operation should be seen as permanent (Belfield, 1999). Male sterilisation seems to carry more myths than female sterilisation, and these will need to be raised and discussed with both the man and his partner (Everett, 2001).

A request for surgery for social rather than medical reasons is an unusual concept, but it can be an empowering decision for the man (Royal College of Obstetricians and Gynaecologists (RCOG), 1999). The permanency of vasectomy, however, places the onus on the health care professional to provide the man with all the information necessary to enable him to make an informed decision.

There are no absolute contraindications for sterilisation, but additional care must be taken when counselling those under 25 years of age or those who have no children. Special care should also be taken if the discussion takes place at the time of a pregnancy or the loss of a relationship (RCOG, 1999).

The RCOG’s *Male and Female Sterilisation Guidelines* are in the process of being updated but the basic information remains the same.

It is helpful if the man requesting a vasectomy can be seen with his partner, although legally this is not necessary. He may, of course, not have a partner and this should not necessarily preclude him from having the operation. His reasons for wanting a vasectomy need to be carefully discussed. The fact that a man may feel that it is ‘his turn’ to take the responsibility for contraception should not, on its own, be enough.

He needs to feel that he never wants to father any more children under any circumstances. This can be a difficult concept for many men to grasp but it is important to help him to project himself into the future and to consider the possibility of losing a partner or child.

Reversal of a vasectomy is possible, but the procedure should not be considered with this is mind. It is essential that it is viewed as a final decision.

### Methods of contraception

When discussing a vasectomy it is important to look at other effective methods of contraception and to ensure the couple has given consideration to them all. It is essential that a careful medical history of both partners is taken to determine that there are no contraindications for any of the contraceptive methods listed in Box 1.

It is important for the man to voice his preconceptions about how a vasectomy might affect his sexuality. Many men think that vasectomy can cause erectile problems or are concerned about whether they will be able to ejaculate. At this stage, the operation can be graphically explained with the help of a diagram, to show that semen will be produced as normal.

The man needs to understand that he will continue to produce sperm, which will not be able to pass down the vas deferens and will be absorbed by the body. In 60-80 per cent of vasectomised men, sperm antibodies will be produced and the testicular antigens can then stimulate...
causes any health problems, except to reduce the chance of conception following a reversal (Belfield, 1999).

The permanency and effectiveness of the operation needs to be explained and supported by written information. No method is 100 per cent effective, and there is a failure rate of one in 200 for tubal ligation and one in 2,000 for a vasectomy.

At this stage, a consent form needs to be completed. The man needs to understand that female sterilisation works immediately, but this is not the case with a vasectomy. It can often take three to six months for the sperm, already passed the point of ligation, to clear, and it is important to emphasise the need for frequent sex to empty the reservoir of sperm and for the man’s partner to be aware of this. A significant percentage of litigation surrounds sterilisation procedures, and late failures can occur (Belfield, 1999).

Recanalisation of the vasa deferentia can occur spontaneously several years after a vasectomy. There are also rare cases of men who intermittently produce small numbers of viable sperm. The man should be warned not to jump to conclusions about a partner’s sexual activity should a pregnancy occur.

It is very important to take the man’s full medical history. Any previous scrotal injury, large varicocele or hydrocele can make the vas deferens more difficult to locate and may possibly prompt the need for the procedure to be carried out under a general anaesthetic.

It is important to pick up on any possible relationship problems at this point and also to ascertain whether there is any indecision from either partner or whether there is any pressure on the man to go ahead with this operation. Religious and cultural issues may need to be explored.

If the man decides to proceed he needs to be provided with precise instructions on preparing himself for the operation, what to expect afterwards and how best to care for himself in the immediate postoperative period to minimise side-effects.

The operation
A vasectomy is usually performed under a local anaesthetic. It can be done under general anaesthetic, which may be suitable when there is a known allergy to local anaesthetics, if the patient faints easily or simply because the patient insists on it. The man may also have a physical condition that could complicate the operation such as those mentioned above.

Vasectomy can be performed as an outpatient procedure in a hospital, clinic or surgery and takes about 10 to 15 minutes. It involves cutting or cauterising the vas deferens. A small incision is made in the middle or on each side of the scrotum, the vas deferens is located and either about one centimetre of it is removed and the two ends tied away from each other, or it is or sealed by electrocauterisation (Black and Francome, 2002).

The most recent technique for vasectomy is the no-scalpel method, developed in China in the 1970s. The vasa are reached via a tiny puncture in the skin rather
than through an incision. The vasa are drawn through this tiny opening (about 1 mm) and are blocked in the usual way. The potential advantages of this technique are to reduce bleeding, bruising and haematoma, but there have been no long-term studies to assess the failure rate of this method (Sivanesaratnam, 1990).

Dissolvable sutures or tape may be used to close the wound, or when the incision is small it can be simply covered with a gauze dressing.

**Nursing implications**

The nursing implications for vasectomy differ depending on how much responsibility is taken by the surgeon. Some nurses may be involved in counselling before the operation and in caring for the man during the procedure. The nurse will almost certainly be required to attend to the patient immediately postoperatively and to check for bleeding before he leaves the clinic.

It is usual for the nurse to give the patient both oral and written instructions about looking after himself over the ensuing few days, and on how and when to send in his specimen of semen for analysis.

It is important to emphasise the need to use contraception until the ‘all-clear’ is given and to describe to the man the importance of frequent sex at this time to empty his reservoir of sperm.

**Aftercare**

Wearing tight underpants for a week (day and night) will help to prevent swelling or bruising. Heavy lifting or vigorous sport should be avoided for at least a week following the operation, and sexual activity can be resumed as soon as the man feels comfortable.

He will be required to send in two consecutive samples of semen for analysis, two to four weeks apart and at least 12 weeks after the operation.

**Side-effects and complications**

Side-effects and complications after a vasectomy are usually minimal but depend very much on the skill of the surgeon and on how well the man cares for himself postoperatively. The most common problems are infection or haematoma. Infections are treated with antibiotics and haematoma with antibiotics, analgesia and scrotal support.

Sperm granuloma is a rare problem, but can occur when sperm leak into the surrounding tissue from where the vas deferens have been incised. It is often asymptomatic but can cause pain and swelling, and requires excision (Everett, 2001). According to Sivanesaratnam (1990), postoperative morbidity is as low as five to eight per cent, scrotal haematoma is seen in one to two per cent of men and infections in three to 12 per cent.

Chronic testicular pain can be a problem for some patients, so all men need to be warned during their preoperative counselling that this may occur. A group of 42 men were followed up for four years post-vasectomy. The results showed that 86 per cent complained of pain for 10 days after the operation, 27 per cent still had pain three months later and 12 per cent had pain for longer than three months (Glavind and Lauritzen, 1990).

Prostate cancer appears to be a recurring anxiety in men contemplating a vasectomy. Some studies have suggested a link, but there is no definite proof. One theory is that a man who has a vasectomy is more likely to have prostate cancer. In a two-year longitudinal study, more than 95,000 men were involved in prostate cancer screening and it was shown that there was no associated higher risk of prostate cancer among those with a vasectomy (DeAntoni et al, 1997). The UK Testicular Cancer Study Group studied 794 men, aged 15–49 years, with a matched control group to determine whether there was a link between vasectomies and testicular cancer. There was no overall association between testicular cancer and vasectomy (UK Testicular Cancer Study Group, 1994).

In addition, a large study of 14,607 men who had a vasectomy showed that they had a lower mortality rate from myocardial infarction (Rosenberg et al, 1986).

**Relationships and sexuality**

Studies show that 45 per cent of couples aged over 40 in the UK rely on sterilisation as a contraceptive (Dawe and Meltzer, 2001). This gives many the freedom to enjoy sexual intercourse without the anxiety of pregnancy, and sharing the decision on whether to have the procedure can strengthen a relationship.

Many men are very happy that at last they can ‘do something’, especially if their partner has had problems with contraception and possibly with pregnancy. However, some see it as a sort of ‘self-sacrifice or martyrdom’ that might cause conflict in the future (Everett, 2001). The man can feel grief, a sense of loss of opportunity and even a loss of maleness.

There are still myths that perpetuate the idea that a vasectomy can cause impotence and sexual dysfunction. Counselling before the operation will identify any potential problems and may help to allay these fears.

It is important to allow a certain amount of time between the counselling and the operation, and to encourage the couple to consider their feelings.

**Vasectomy reversals**

There are no standardised guidelines for vasectomy reversal. The procedure may be available via the NHS if the man has been on a waiting list for 18 months. The success rates range from 17 per cent to 82 per cent. These rates are related to when the vasectomy was performed, the presence of antibodies, the type of vasectomy operation and the skill of the surgeon.

Following reversal, the pregnancy rate up to 10 years is 32–82 per cent; more than 10 years it is as wide-ranging as nine to 35 per cent.

A confounding factor is also the potential fertility of the woman (Owen and Kapila, 1984).