

The 'Immaculate Conception' - Fatherhood without Apparent Spermatozoa

by Joseph Smith

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Vasectomy results in more litigation than any other urological operation. The most common event that leads to litigation is failure of the operation, resulting in pregnancy in the partner.



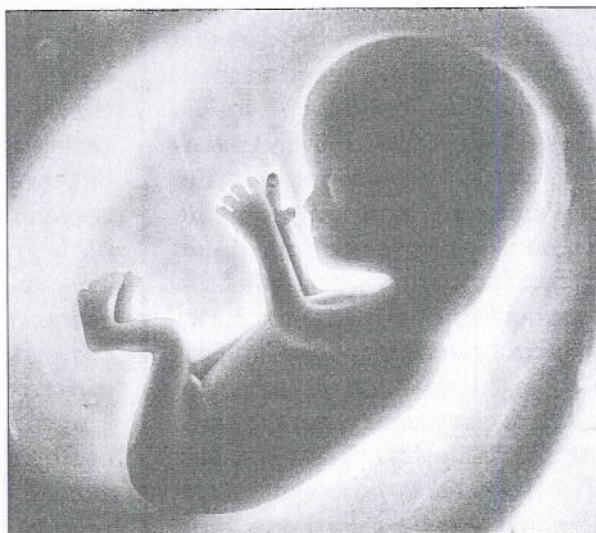
After vasectomy the patient is instructed to produce one, or more usually two; semen specimens for analysis. He is given 'the all clear' if these are negative, ie show no sperm on microscopy. A single negative semen specimen shows that the operation has been satisfactorily performed, and it is not now customary to send the excised sections of the vasa deferentia for histological examination unless there is doubt about their nature.

How two specimens became accepted as the standard is unknown, but perhaps it was to minimise the problems of specimens being mixed up? It has been suggested that three specimens should be examined,¹ though this view is not logical.² Two consecutive negative specimens are, however, requested in the Department of Health consent form.

After the first specimen has shown that the operation has been satisfactorily performed, it seems likely that occasional subsequent specimens may show occasional sperm, some many months after the operation.³ But however many negative specimens are sent, there is always the remote possibility of a late failure of the operation.

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Some surgeons/doctors confuse the low sperm counts that occur post-vasectomy, either during clearance or with re-canalisation, with those counts associated with infertility. It must be emphasised that men who request vasectomy have highly fertile spermatozoa and that any sperm seen (motile or non-motile) in post-vasectomy specimens make that specimen positive and not negative.



Some patients persistently produce small numbers of sperm for many months after vasectomy, and such cases cause management problems. I know of one clinic where it is customary to give these patients a 'special clearance', that is, to tell them that the chances of their being fertile are remote and then allow the patient to make his own choice about future contraception. It is important to emphasise that the decision must lie with the patient, and not with the doctor. Should a pregnancy occur, this can then be shown to be a result of the patient's decision not to use contraception. To date no pregnancies have been recorded among the partners of this group of patients.⁴

Early failure of vasectomy by re-canalisation of the vas deferens has been known for many years, as evidenced by occasional case reports. This possibility was, however, only brought to general attention in a series of seven cases in 1969.⁵ Re-canalisation is easily diagnosed by persistently positive semen analyses, and a further vasectomy is usually performed.

Late failure of vasectomy (after two negative sperm counts) was recorded by Philp *et al* in 1984.⁶ They found six cases of pregnancy in the partners of over 14,000 men who had undergone vasectomy. All six cases were associated with positive sperm counts.

Since publication of that article, it has been very difficult to defend a case of vasectomy failure where warning of the possibility of late failure was not given to the patient before the operation. This warning should be recorded in the notes and on the consent form. The need for this warning was emphasised in the *Journal* in 1985, and the Department of Health's current consent form which reads:

'I understand that sterilisation/vasectomy can sometimes fail, and that there is a very small chance that I may become fertile again after some time.'

This wording covers early and late failure of vasectomy, and also female sterilisation.

We have recently published six cases of late failure of vasectomy where the post-conception sperm counts were all negative, in one case on eight occasions.³ Parenthood was proved in each case by means of DNA analysis. It is uncertain whether these pregnancies occurred because of sperm retained in the seminal vesicles, or as a result of a re-canalisation with a few sperms being ejaculated intermittently. In one case subjected to further surgery, histological evidence suggesting re-canalisation was found. While these cases have considerable social implications, showing that a partner's pregnancy after a negative sperm count may not indicate infidelity, they do not alter the legal concept of vasectomy. They do, however, emphasise the importance of a verbal and recorded warning of the possibility of late failure.

It is very important that the possibility of late failure is explained to the patient and partner before vasectomy, so they can decide whether to use additional contraceptive methods. I have, however, never come across a couple who, when told of the small chance of vasectomy failure (circa 1 in 2,000 cases) have adopted alternative additional methods of contraception.

Vasectomy remains a very safe method of contraception, but of course no surgical operation carries a 100 per cent guarantee of success.

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