A Male Sterilization Clinic

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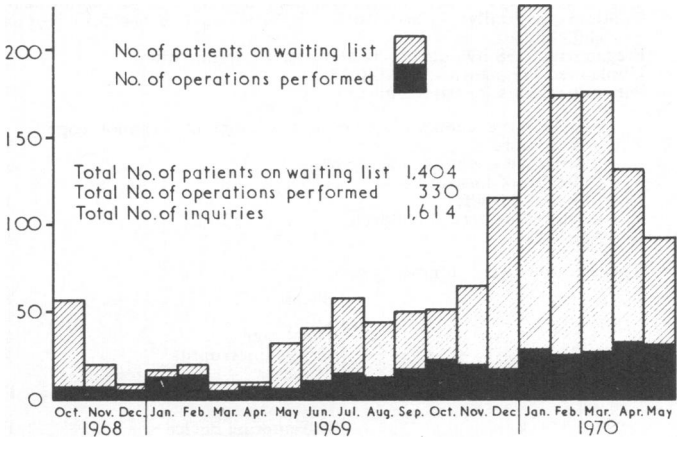
Summary: In the Cardiff Family Planning Association Clinic 330 men have been sterilized during the past 20 months. Selection for operation was made after a detailed discussion between husband, wife, and a Family Planning Association doctor, and with the general practitioner's agreement. The outpatient operation was performed under local anaesthetic by a surgeon. It was regarded as being successful or complete when two semen analyses showed azoospermia at an interval of one month.

Introduction

Until recently the practicality of male sterilization has been clouded in the medical mind by its possible but never proved illegality, and in the lay mind by its association with castration. In 1960, however, the medical defence societies were advised that male sterilization was not unlawful, and soon afterwards the Simon Population Trust launched a successful campaign to promote awareness of vasectomy. In April of this year the Secretary of State for Health and Social Security announced that vasectomy could be carried out under the National Health Service if the health of the husband or wife was in danger.

The need for fertility control in Britain passed rapidly from private to public recognition in the 1960s, culminating in the Family Planning Act of 1967. The desire for permanent family limitation seems to be spreading, and female sterilization is increasingly requested and practised. The interest in male sterilization is shown in the Chart. Those put on the waiting list were, with very few exceptions, couples who lived within a reasonable distance from Cardiff and who could return home on the evening the interview or operation took place.



Trend in demand for vasectomy.

Before the clinic was started the one surgeon undertaking vasectomy found that the demand was rapidly growing and also that assessing initially the couple's contraceptive needs was beyond his knowledge. He asked the Family Planning Association for advice and this resulted in the setting up of a male sterilization clinic.

Many thousands of vasectomies have already been performed, but most of these have been carried out privately, and have therefore been beyond the financial means of most of the community. The Family Planning Association, which is a charitable and self-supporting organization, charged a fee of 15 guineas for the operation, but this was remitted or deferred whenever necessary. Of the 330 cases reported here no charge was made in 10%, and the fee was reduced in a further 9%. The aims of the clinic were to provide an additional method of contraception which was within the means of all, and also material for teaching and research.

Method

Selection

The doctor interviewing the couple had had training in contraception and psychosexual patterns. The discussion was designed to determine whether sterilization would promote the welfare of the whole family unit. A decision was made after many factors had been considered—medical, social, and emotional. The merits of both female and male sterilization were discussed, and close co-operation with the gynaecologists facilitated treatment for the wife, if thought necessary.

Each interview lasted 30 to 45 minutes. Information was recorded on the clinic form regarding the following questions.

- Age of husband and wife
- Years married
- Past medical history:
  - Husband—including hernia and genital abnormality
  - Wife—general, obstetric
- No. of children and ages
- No. of abortions
- No. of unplanned pregnancies
- Previous contraception: Oral; Intrauterine device; Diaphragm; Sheath; Coitus interruptus; Other
- Request for female sterilization
- Couple's reason for permanent method
- Coital frequency
- Coital satisfaction: Husband; Wife
- Coital difficulty: Husband; Wife
- Consideration of death of child
- Consideration of husband remarrying
- Apparent relationship between husband and wife
- Apparent attitude towards children
- Comments by interviewer

Information Given to Couple

If vasectomy was agreed to, the couple were given information about the operation and its effects. They were told that it had to be regarded as irreversible, and a diagram helped to explain that sexual activity and desire remained unchanged. The importance of continuing to have intercourse to remove the spermatoza beyond the site of operation was discussed and

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the actual complementary method of contraception agreed on. It was emphasized that this must be used until two negative sperm counts had been received. Though these were initially requested at 12 and 16 weeks postoperatively the patient was told that complete azoospermia may take much longer to achieve. Time off from work in relation to the man's job was considered, and warning was given about the small incidence of infection and bleeding.

With this information the couple finally made their decision, and if they wished to proceed they and the doctor signed a consent form. They were told that "the absolute reliability of this method is unknown but it is the best we know." If there was any difficulty in making the decision discussion between the interviewing doctor and the surgeon took place in the clinic immediately, and subsequently with the general practitioner. In some cases the surgeon made the final decision after interviewing the couple himself. If there was a history of any genital abnormality or hernias the patient was examined by the surgeon during the first clinic visit.

Role of General Practitioner

Because of his knowledge of the whole family situation the general practitioner's agreement that vasectomy was desirable was regarded as essential before the operation was performed. Most patients were referred by their family doctor, usually at the patients' initial request. The general practitioner was also asked whether, so far as he knew, the couple were stable and happily married. On two occasions the general practitioner withheld his agreement. In two further instances the family doctor had a religious objection to sterilization, and he replaced the usual agreement form with a letter saying that there were no medical contraindications to the operation.

The Operation

The surgical team consisted of two general surgeons, three gynaecological surgeons, and one genitourinary surgeon. A theatre sister assisted and complete aseptic precautions were taken. Three operations were performed at each clinic session while other couples were being interviewed. Before the operation the surgeon considered fully the details on which the operation had initially been recommended at the time of interview.

Twenty-four hours before operation the patient shaved his scrotum. No preoperative medication was given. At operation the surgeon fixed the vas with the finger and thumb of one hand and local anaesthetic was injected into the skin and alongside the vas itself; 2 to 5 ml. of 1% lignocaine hydrochloride *B.P.* (without adrenaline) was used for the whole procedure. The skin was incised and the vas and its coverings were picked up with Poirer's forceps. A plane of cleavage was found immediately adjacent to the vas beneath the adherent vessels. Stripping the vas in this plane was bloodless and usually simple. Either one midline or two lateral incisions were made. The length of vas removed on each side was about 3-4 cm. (all were measured and recorded). The cut ends of the vasa were doubled back and ligated with catgut. In the first 100 patients the vasa were tied with thread. Haemostasis was achieved and two catgut stitches were placed in the skin wound. Dry gauze was placed over the incision and kept in place with stretch pants. Each operation lasted 15 to 20 minutes.

Care was taken that a conversation of interest to the patient was continued between him and the sister and the surgeon throughout the operation. The patient was warned that bruising might occur, that the effect of the local anaesthetic would wear off in about an hour, and that any subsequent pain could be controlled by aspirin and should diminish in intensity after 24 hours. He went home immediately after the operation, being asked to return in one week for postoperative follow-up.

Semen Analyses

Tests were originally asked for at 8, 10, and 12 weeks postoperatively, but, as one-third of the patients were still positive at 10 weeks, later semen analyses were requested at 12 and 16 weeks postoperatively. All slides were filed for reference. The operation was regarded as complete when two seminal analyses showed azoospermia at an interval of one month, and letters to this effect were sent to the patient and to his general practitioner.

Results

Interviews

Of the 390 discussions during the 20 months under review 330 were followed by operation, 26 men were awaiting operation, and 34 did not proceed to operation for the following reasons.

Advised to postpone decision as parents and children were very young (2 returned in 12 and 18 months for operation)	13
Patients elected to postpone decision as method was too final (2 returned in 6 and 7 months for operation)	7
Referred for tubal ligation	6
Referred for hysterectomy	1
General practitioner did not agree	2
Had vasectomy under National Health Service	2
Emigrated	1
Patient had a coronary thrombosis	1
Ex-prisoner moved away after release from prison	1

First 100 Interviews Preceding Operation

Age	20–29	30–39	40–49	≥50
Husband	4	62	32	2
Wife	26	59	15	0

Years of marriage: 39 < 10 years; 55 10–19 years; 6 ≥ 20 years

Health	Well	Some Ill Health	Severe Illness
Husband	73	22	5
Wife	71	19	10

Obstetric history: 57 normal; 26 some abnormality; 17 severe abnormality

Children per family: 43 had 1 or 2; 51 had 3 or 4; 6 had 5 to 9—total 288 children

Pregnancies: 288 live births; 37 abortions; 1 termination

Unplanned pregnancies: 132 (40·5%)

Patient's reasons for vasectomy:

Family large enough—cannot afford more or "cannot cope" with more	56
Alternative methods unacceptable	53
Ill health of husband	4
Ill health of wife	36
Inherited defects of children	3
Age	25

Three reasons were commonly given.

Previous contraceptives used	Sheath	91
	Pill	54
	Diaphragm	49
	Coitus interruptus	39
	Pessaries / Foam / Rhythm method	17
	Intrauterine device	15
	Complete abstinence	15

51 couples had tried three or more methods.

Female sterilization	Offered but vasectomy preferred	30
	Requested but refused (5 medically contraindicated)	20
	Patient had not requested	50
Coital frequency	Twice or less per week	45
	Three times or more per week	55

Immediate Results of Operation

The patient returned after one week and asked about any pain or loss of time from work. Signs of infection and haematoma were noted.

Pain.—Most men did not find pain troublesome except when they had a large haematoma.

Time off Work.—330 patients: 80 were not recorded, though one had considerable time off as a result of infection, and 250 were recorded (no time off 168 or 1 day off 45 (85·2%); 2 days off 19; 3 days off 6; 7 days off 10; one operation performed in hospital, two on holiday; 28 days off 1 with a haematoma).

Infection.—There were no significant wound infections. Two haematomata became infected—one soon after operation, needing incision in hospital; one four weeks after operation which discharged spontaneously and healed completely. There were no persistent sinuses.

Haematomata.—At one week half the patients had no haematoma or bruising. Slight bruising or haematomata of 3 cm. diameter or less occurred in the remainder, except in 14 patients who had haematomata large enough to need further medical care. Two of these were admitted to hospital—one recorded above, and the other for observation. None were evacuated surgically. Some of these haematomata were thought to be infected and antibiotics were given outside the clinic, possibly unecessarily.

Hospital Admissions.—Five patients were admitted for elective operation: one combined with removal of an atrophic testicle, one because of associated bleeding disease, one because of extreme anxiety in the clinic, and two whose vasa were not palpable in the clinic. Three patients were admitted for postoperative complications; one for incision of an infected haematoma (see above), one for two days' observation of a large haematoma (see above), and one for a stitch in a bleeding scrotal incision.

Results of Semen Analysis

The term "completed" indicates two consecutive semen analyses showing azoospermia at one month's interval. Among the 330 patients under review analyses were not completed in 132, as insufficient time had elapsed since operation. Of the 198 in whom it could have been completed 172 had a complete operation and 26 did not.

Analysis of 172 Completed Operations.—Of 152 patients who sent in two specimens (both azoospermic) 24 completed 12 weeks, 102 18 weeks, 19 24 weeks, and 7 30 weeks postoperatively. The 26 patients who completed in 24 weeks or more delayed submitting specimens. Fourteen patients sent in one positive specimen (these patients completed between 18 and 32 weeks postoperatively). Four sent in two positive specimens (these patients completed between 21 and 28 weeks postoperatively). Two sent in five positive specimens (one patient completed 35 weeks and one 38 weeks postoperatively).

Analysis of the 26 Patients whose Operations were Not Completed.—Twenty defaulted in submitting specimens (12 submitted none). The other six patients submitted persistently positive specimens (three of these submitted such specimens up to 38 weeks postoperatively, then stopped. On recall to the clinic they reported that they were abstaining, and were recorded in the initial interview as having had poorly established sexual relationships before operation).

Yearly Follow-ups

The few patients who were interviewed a year after completion of the operation were satisfied and had no regrets. Semen analyses at this stage had all been negative. These follow-ups will be the subject of a further report.

Conclusion

The interest in male sterilization in the community is considerable, and the demand for the operation far outstrips the services available. Sterilization is a permanent, irreversible method of contraception, and the decision to use this method is based on consideration of factors affecting the whole family. Male and female sterilization are considered, but vasectomy is much preferred by most of the couples in this series because it is simple and the mother does not have to leave her family.

The operation can be carried out in the outpatient department under local anaesthesia with little or no time off work and a very low complication rate. Certain information and skills seem advisable before vasectomy is undertaken. The general practitioner is best able to assess family stability, the decision is taken only after consideration of other contraceptive methods, and surgical experience is needed even though the operation is a minor one.

The results reported above indicate that vasectomy is a simple, safe, aesthetic, efficient, and cheap method of achieving permanent family limitation.

We wish to thank the lay and nursing staff of the Family Planning Association who worked in the vasectomy clinic; to the pathologists and technicians who undertook the semen analyses; to the Board of Governors of the United Cardiff Hospitals for their permission to use the outpatient theatre and premises; and to the many people throughout Cardiff Royal Infirmary who co-operated so generously.

Requests for reprints should be sent to Dr. Pauline Jackson, Family Planning Association, 33a Windsor Place, Cardiff.

Psychological Aspects of Vasectomy

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Summary: In a study to assess the psychosocial and sexual effects of contraceptive vasectomy by questionnaire and personal interview, 10 out of 82 respondents indicated some psychological problem arising from the operation. Five out of seven couples interviewed had histories of marital, sexual, or psychological instability. Screening of applicants for vasectomy is therefore recommended, pre-existing instability being a contraindication to the operation.

Introduction

The demand for contraceptive sterilization of men is rising steeply in both the U.S. and the U.K., and the increased concern over side effects of contraceptive pills will further accelerate this demand. As a surgical procedure this operation has proved safe and reliable over a period approaching 70 years. It has, however, been established that, whereas 2% of normal men have circulating antibodies against their own sperm, they are present in 30% of vasectomized men (Rümke and Hellinga, 1959; Phadke and Padukone, 1964). While at present this appears to be of academic interest only, the possibility of autoimmune conditions developing as a remote sequel to vasectomy cannot be entirely dismissed. One report has appeared (Roberts, 1968) recording a few cases which might be of this nature.

As a contraceptive measure the irreversibility of the operation is its most serious defect. Some encouraging success, however, has been reported by various doctors in reversing the operation surgically (Dorsey, 1957; Roland, 1961). But even successful restoration of patency does not guarantee restoration of fecundity, for most men with anti-sperm antibodies are rendered sterile by this factor, and many of

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