

Vasectomy—a two year follow-up

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SUMMARY. A report is given of 200 consecutive vasectomy operations performed by a general practitioner and with anaesthesia by a general practitioner. There was a bias among patients towards the upper social classes, perhaps because of better use of sources of information. The reasons for seeking vasectomy are analysed and seem to be more complex than the interviewer/operator assumed. One hundred and seventy-five couples followed up reported physical and emotional relationships to have improved in over 50 per cent of cases and to have been unchanged in virtually all the rest. An analysis of the 28 couples who were not followed up does not show any characteristics indicating a likelihood of their differing from the follow-up group.

Introduction

The operation of bilateral vasectomy is relatively new in contraception. The work of the Simon Population Trust was published in 1969 and widely reported in the lay press. It is probably no coincidence that local demand for this procedure started shortly afterwards and steadily increased.

The waiting lists for general surgery are usually long and services are over-stretched. The place of a procedure such as vasectomy in the therapeutic queue must be low and in view of this it was decided that it would more properly be provided in a local cottage hospital, which already had a lower bed-use rate and vacant theatre time.

So far over 300 patients have been operated on and this report is concerned with the first 200. The population, served by the cottage hospital is about 30,000 but it is not possible to estimate exact incidence as some patients were admitted from outside the area and other patients living inside the area have been operated on in other hospitals.

All patients who were accepted had been referred by their own general practitioner. They were interviewed with their wives at a consultation lasting about 20 minutes. An attempt was made to establish that they fulfilled two criteria namely:

- (1) the marriage was happy and stable,
- (2) the procedure was being sought as a permanent contraceptive measure and not as a remedy for a physical or emotional problem.

Three couples were advised against vasectomy on the grounds that they did not fit these criteria during the period of the survey.

Those were kept on a 'waiting list' for six weeks before admission on the grounds that this would give time for second thoughts. No couple asked to be removed from the list during this period and it now seems to be an unnecessary restriction.

Method

Patients were admitted on the morning of operation which was always performed under a short general anaesthetic. A previous report had shown no difference in stated fear between those operated on under local anaesthetic and those under general anaesthetic (Simon Population Trust, 1969). Patients were asked which they would prefer, 156 stated general anaesthesia on the grounds of lack of embarrassment and 44 had no preference. None chose local anaesthetic. A general anaesthetic was always given because it was thought to make the procedure quicker and to reduce the likelihood of infection.

The vasa were divided through bilateral one centimetre scrotal incisions. A small portion of vas was excised and the ends folded back and tied with monofilament nylon. The wound was closed with a subcuticular stitch. The average length of time for the operation was 15 minutes. All patients were fit to return home two hours later wearing a scrotal support for five days. Two early cases developed haematomata and three developed superficial wound sepsis which settled with local heat only.

Sperm counts were carried out six and 12 weeks after operation and the patient told to continue using other contraceptives until he was advised that they were no longer needed.

Results

The majority of the 200 men operated on were aged between 34 and 38 though as table 1 shows, the ages varied from 26 years to 47 years for both husbands and wives.

TABLE 1
AGE DISTRIBUTION OF PATIENTS

<i>Age group</i>	<i>Husband</i>		<i>Wife</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
<30	11	5.5	37	18.5
30-34	55	27.5	63	31.5
35-39	63	31.5	73	36.5
40-44	51	25.5	23	11.5
45+	20	10	4	2

In most cases the husband was older than the wife and only in 11 was the wife older. The age differentials are shown in table 2. There was no significant relationship discovered between age differential and the subsequent 'success' reported, but in eight of the 11 older wives the health of the wife was given as a reason for seeking vasectomy.

TABLE 2
AGE DIFFERENTIAL

	<i>Number</i>	<i>per cent</i>
Wife older	11	5.5
Same age	25	12.5
Husband 1-5 years older	131	65.5
Husband > 5 years older	33	16.5

Social class

The social class distribution is shown in table 3. There is a considerable bias towards social classes 1 and 2. Husbands were asked where they had first heard about vasectomy and there was a marked difference between those in social classes 1 to 3 and those in 4 and 5.

TABLE 3
SOCIAL CLASS DISTRIBUTION

<i>Social class</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Number	7	50	82	43	18
Per cent	3.5	25	41	21.5	9
Expected per cent	2.8	15.5	49.9	21.8	10

TABLE 4
SOURCE OF INFORMATION

<i>Social class</i>	<i>1, 2 and 3</i>		<i>4 and 5</i>	
	<i>Number</i>	<i>per cent</i>	<i>Number</i>	<i>per cent</i>
Read about in article	112	56	4	2
Told by friend	15	7.5	51	25.5
Told by doctor	12	6	6	3
Total	139	69.5	61	30.5

Eighty per cent of those in upper social classes had read about it in an article or in the paper but more than 80 per cent of those in social classes 4 and 5 had heard about it from a friend, usually a work-mate.

Number of children

Table 5 shows the number of children that couples had at the time of operation. Twelve wives were pregnant at the time of operation, therefore the 200 couples had between them 538 children, an average of 2.7 per family. There were less large families in the series than expected. All the couples were asked if they had planned their family size. Couples with one or two children had always planned them, but nine couples (12 per cent) with three children had not planned this number, six couples (33 per cent) with four children had not planned for this and seven couples (64 per cent) with five children said their family was not planned.

TABLE 5
NUMBER OF CHILDREN

<i>Number of children</i>	1	2	3	4	5
Number with	11	82	78	18	11
Per cent	5.5	41	39	9	5.5

Age of youngest child

Table 6 showed the age of youngest child at the time of operation. Sixty-eight per cent of couples had waited more than one year between the birth of their last child and seeking sterili-

TABLE 6
AGE OF YOUNGEST CHILD AT OPERATION TIME

<i>Age</i>	<i>Less than one year</i>	<i>1-5 years</i>	<i>Older than five years</i>
Number	64	68	68
Per cent	32	34	34

sation. The impression that this gives of careful decision is borne out by the figures in table 7 showing the length of time that had elapsed between first consideration of vasectomy and admission to a waiting list.

TABLE 7
CONSIDERATION TIME

<i>Time</i>	<i>< 1 week</i>	<i>1-4 weeks</i>	<i>1-6 months</i>	<i>7-12 months</i>	<i>> 1 year</i>
Number	4	21	92	56	27
Per cent	2	10.5	46	28	13.5

Previous contraception

An enquiry was made into the method of contraception being practised at the time of interview. Table 8 shows that the pill or the sheath were the commonest methods; 112 couples had used other methods before this, 33 of them having tried four other methods. 'Other' methods included 'withdrawal' in five, 'rhythm' in seven, a 'cap' in 13.

TABLE 8
METHOD OF CONTRACEPTION IN USE BEFORE OPERATION

<i>Pill</i>	<i>Sheath</i>	<i>Intra-uterine device</i>	<i>Chemical</i>	<i>Other</i>
67	72	12	24	25

Follow-up

A questionnaire was sent to every couple on the second anniversary of their operation and 172

completed forms were returned. Further attempts to secure a higher follow-up of the remainder revealed that all except eight had moved out of the district. It was felt that further attempts to contact them ran the risk of a breach of confidence and were abandoned. The eight who declined to answer the questionnaire professed themselves 'satisfied' but did not want to answer detailed questions.

Couples were asked to list in order of importance their reason for seeking vasectomy. They were given a list of seven reasons to choose from and an eighth to declare if the reason had not been adequately covered.

The results shown in table 9 indicate the variety of reasons that were given. Insecurity, the health hazard of the Pill, and an unsatisfactory sexual relationship for the wife are clearly

TABLE 9
REASON FOR SEEKING VASECTOMY

	<i>Ranking of preferences</i>			
	<i>1st</i>	<i>2nd</i>	<i>3rd, 4th & 5th</i>	<i>6th, 7th & 8th</i>
Previous contraceptive method insecure	61	25	27	16
Health hazard of Pill	46	44	29	5
Sex unsatisfactory—husband	5	20	41	19
Sex unsatisfactory—wife	27	49	52	33
Emotional relationship unsatisfactory	6	—	55	9
Financial worry of further pregnancy	27	31	78	16
Worry about population control	—	—	50	55
Other reason	—	—	—	28

the commonest reasons. Financial worry about further pregnancy was often equated with insecurity of present contraceptive method and it was obvious that many couples had difficulty in being more specific and could only indicate a level of importance in their 'feelings'. An additional reason was given by 28 couples. It was always the lowest priority on their list. Eight were worried about the health of their wives (all with a wife older than the husband). Five wives had 'trouble' with their periods whilst using an intra-uterine device.

Three methods were used for rating the success of the procedure apart from the obvious failure to conceive.

They are set out in tables 10 and 11. Both husband and wife were asked to rate the effect upon their physical and emotional relationship. Sexual activity was defined as an average monthly frequency of intercourse. This was recorded again two years after vasectomy.

TABLE 10
EFFECT OF VASECTOMY UPON RELATIONSHIP

	<i>Physical</i>			<i>Emotional</i>		
	<i>Better</i>	<i>Worse</i>	<i>Same</i>	<i>Better</i>	<i>Worse</i>	<i>Same</i>
Husband	105	2	65	99	0	73
Wife	124	0	48	115	0	57

TABLE 11
SEXUAL ACTIVITY—PERCENTAGE INCREASE AFTER VASECTOMY

<i>Per cent</i>	0	10	20	30	40	50	60	70	100	200	<i>Total</i>
<i>Number</i>	72	3	16	19	5	24	18	3	4	8	172

There was a wide variation both before and after but it will be seen that 100 (58 per cent) reported an increase. This correlates with the numbers of husbands and wives reporting an improvement in their physical relationships, 61 per cent and 72 per cent respectively and husbands and wives reporting an improvement in their emotional relationship, 57 per cent and 66 per cent. The 100 couples reporting an increase in sexual activity were also all included in those reporting an improvement in physical relationships and with one exception in those reporting an improvement in their emotional relationships.

Husbands were asked to rate the effect that vasectomy had upon their feelings of masculinity; 142 said they felt the same as before operation, 30 said they felt their masculinity had been improved.

All couples were asked if they had any regrets two years later. All answered no. No other side-effects were recorded and additional comments were confined to expressions of satisfaction. Three quarters of couples (127) felt vasectomy should be freely available under the National Health Service, but one quarter felt it should only be available in cases of medical need. The two men reporting their physical relationship to be worse both complained of testicular ache, but on other criteria, sexual activity and wife's relationships showed improvement.

Discussion

The 200 couples in this survey represent a considerable measure of selection. There is a bias towards the upper social classes which may be due, in part, to better access to sources of information. Apart from self-selection in this way there are two other filters represented by the patient's family doctor and the operator. Both have criteria for selection.

It is difficult to know how effective or useful such criteria are. For example, in this series, at the final point of interview sterilisation for emotional or purely psycho-sexual problems was to have been excluded, yet a considerable number of patients afterwards declared a problem in this category and an even larger proportion reported an improvement. Being pragmatic it did not seem to matter—or did it? The problem of a less than 100 per cent follow-up always exists. All the 28 missing cases may fall into a particular group and thus produced markedly different results. It is worth looking at the characteristics of the failed follow-up group to see if there are any marked deviations from the follow-up group.

TABLE 13
AGES OF FAILED FOLLOW-UP GROUP

	<i>Husband</i>	<i>Wife</i>
30	3	9
30-34	8	9
35-39	12	10
40-44	5	0
40+	0	0

This shows them, as a group, to be younger. They had less children, 2.5 per family, than the follow-up group, 2.7 per family. The social class distribution is shown in table 14 and does not differ markedly from the total group.

TABLE 14
SOCIAL CLASS OF FAILED FOLLOW-UP GROUP

Social class	1	2	3	4	5
Number	1	5	11	8	3

Perhaps all one can say is that there is no evidence of any strong bias in the failed follow-up group, eight of whom had indicated general satisfaction. If all the missing 20 couples had reported their physical and emotional relationships to be worse this would have reduced the figure for the whole series from 100 per cent acceptability to 90 per cent acceptability.

Acknowledgement

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REFERENCE

Simon Population Trust (1969). Vasectomy: Follow-up of a thousand cases.