Contemporary Themes

Why 103 women asked for reversal of sterilisation

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Summary

Between 1975 and 1976 103 women requesting sterilisation reversal were interviewed at Hammersmith Hospital. Their average age at sterilisation was 26.7 years; 65 (63.1%) had been sterilised immediately after pregnancy, and many patients had previously used contraception inadequately when they were sterilised. When they had been sterilised 78 (75.7%) patients were unhappily married and remarriage was the chief reason for the request for reversal. Sexual dissatisfaction after sterilisation was common, but there was no obvious increase in menstrual disturbance. Thirty-nine (37.8%) patients had been sterilised by irreversible methods, and in only half the cases sterilised by tubal ligation were conditions technically suitable for reversal surgery. It therefore seems unwise to sterilise women under 30 particularly immediately after pregnancy or if their marriage is in jeopardy.

Introduction

Little has been published giving a detailed analysis of patients who seek sterilisation reversal. Sterilisation is apparently increasingly used as a method of contraception for young women, particularly in the developed world. It is important, therefore, that the reasons why some patients regret sterilisation are analysed so that subsequent dissatisfaction can be minimised. I give some of the reasons why 103 women referred to Hammersmith Hospital requested reversal of sterilisation.

Materials and methods

Of 125 women referred to Hammersmith Hospital for reversal of sterilisation in the 16 months before December 1976, 103 were interviewed and the findings are included here. Most of these women were desperate to try any attempt at reversal, however speculative. They generally made strenuous efforts to obtain hospital referral, sometimes against the inclination of their general practitioner. Some travelled from all over Britain to attend outpatients, and over two-thirds came from outside London. They were from a wide range of social class, and generally women from social classes IV and V had found it more difficult to get a referral letter.

Findings

Age—The age of the patient at the time of the request was from 22 to 46 (mean $32.8 \pm SD 3.7$). The age at sterilisation varied from 20 to 35 (mean 26.7 ± 4.3). While 26 patients had been sterilised at 24 or younger only 11 patients were over 30 (table I). Five years was the average time between sterilisation and the reversal request. A few patients came to the clinic within six months of sterilisation; the longest interval was 14 years. Most patients were remarkably young (89.3% under 30) when sterilised.

TABLE I—Age of 103 patients when sterilised (mean 26.7 years)

Age in years	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
No of patients	3	5	5	5	8	12	19	13	9	8	5	3	4	2	1	1

Parity—The mean of term pregnancies was 3.1 ± 1.3 . Four women had had no term pregnancies. The maximum number of term pregnancies was seven. About half the patients had had one miscarriage, only four having had three or more. Sixty-five patients had been sterilised immediately after their last pregnancy. Pregnancy had been terminated in 37 patients; three had had two abortions and one five abortions. All except two patients undergoing termination had been sterilised at the same time. Of the two exceptions, one had been aborted, when 14, after rape, and the other, when 21, because of schizophrenia. She was sterilised four months after termination on psychiatric advice, and four years later the same psychiatrist referred her for reversal. Unfortunately, she had had a total salpingectomy.

Methods of sterilisation—Whenever possible I ascertained the method of sterilisation from the hospital where the operation had been done (tubal ligation 55 patients, laparoscopic diathermy 18, total salpingectomy 16, fimbriectomy 5, Irvine method 1, cornual excision 1, and method unknown 7). This information was often not provided or was inaccurate. In the absence of records, patients with only a small subumbilical scar were assumed to have had diathermy sterilisation. Laparoscopy was often performed during our initial investigations to assess the feasibility of reversal. Some patients, for whom sterilisation details were not available, were clearly unsuited for reversal surgery. These patients were not investigated and were recorded as "Method of sterilisation unknown." Some 37% of the patients were sterilised by methods that are generally destructive. Additionally, about half the patients who were investigated after tubal ligation were regarded as quite unsuitable for reversal surgery because the major part of both tubes had been resected.

Contraceptive advice before sterilisation—Patients were asked in detail about contraceptive advice given before sterilisation (table II), and many seemed to have been poorly advised: 34 patients (33%) thought they had been well counselled while an equal number felt they had not. Twenty-six patients claimed to have received no formal advice, nine patients, 30 in all (29%), apparently used coitus interruptus for most of their marital life, and only 18 patients had visited a family planning clinic. Twenty-eight (27.2%) patients had used at least two established methods of contraception, 11 had used at least three methods for an extended period, and 34 had never used any effective methods (except withdrawal).

Psychiatric history—Patients were asked whether they had ever been sufficiently disturbed to take antidepressive drugs and also if they had

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seen a psychiatrist before or after sterilisation. Although 32 patients had taken antidepressants before sterilisation—four had attempted suicide, usually because of a worsening marital situation, and two had had electric convulsion treatment. Antidepressive drugs after sterilisation were used by 39 patients and three had attempted suicide. Only nine patients had seen a psychiatrist, and six had been given a psychiatric opinion advising sterilisation. In all six cases a psychiatrist (usually the same practitioner) saw the patient again before reversal and supported the reversal request. When there was doubt about the patient's emotional stability she was seen by an experienced consultant psychiatrist at Hammersmith Hospital. He never advised against reversal surgery, though nine patients had evidence of mild depression at the time they requested reversal.

TABLE II—Contraceptive use before sterilisation (but excluding usage for less than three months)

	Total	<1 yr	≥1 yr	Side effects	Pregnant during use
Pill	58	42	16	29	3
Intrauterine coil device	24	15	9	7	4
Cap/sheath	32	28	4	—	2
Withdrawal	30	25	5	—	Not known

Reasons for sterilisation—Most patients gave several reasons for their decision to be sterilised. It was usually possible to categorise the most important reason (financial/social 32 patients, did not want more children 26, contraceptive failure 13, medical 12, husband insisted 7, done at termination 7, repeat caesarean section 3, and claimed no consent given 3). Medical indications included patients with rhesus isoimmunisation or genetic disease. An extremely high proportion emphasised bad marital relations before sterilisation: 78 patients (75.7%) emphasised that their marriage had been so unhappy that they decided to end their child-bearing. Some patients had been sterilised in an attempt to save their marriage, and nine patients said that their husband threatened to leave them unless they were sterilised—in each case the marriage dissolved after sterilisation, often within months. Most patients denied that their medical advisor made a serious attempt to dissuade them from sterilisation in case they wanted to remarry. Twenty-five (24.3%) had been reasonably happily married when sterilised, and even some of these marriages had subsequently broken up. Three patients claimed that they had given no consent. One of these patients had been sterilised at caesarean section, one had tubal ligation during a laparotomy, and in one case it is doubtful if consent was genuinely withheld.

Sexual happiness after sterilisation—Sexual satisfaction improved in 47 (45.6%) patients after sterilisation, and 49 patients reported that sexual relations were subsequently less satisfactory. Six patients felt that sterilisation contributed to breakdown of their marriage, usually because relations had become unsatisfactory. Of eight patients who felt that sexual relations had become worse after sterilisation and who had reversal surgery, six claimed that sexual satisfaction had considerably improved.

Reasons for reversal request—The most important reason for reversal was remarriage or planned remarriage (patient remarried or new marriage planned 81, patient feeling incomplete or defeminised 8, wanted to add to family 4, child died after sterilisation 4, medical reasons (amniocentesis, etc) 4, and to improve sexual relationship 2. Most patients had divorced, but three marriages had ended with the husband's death. Eight patients (7.7%), still married to the same husband, requested reversal because they thought that their sexual relationship might improve. Four patients who had been sterilised because of a genetic disorder requested reversal because of the recent availability of amniocentesis.

Religion—After starting this study a higher incidence of Roman Catholics was noted in the sample than might be expected from the general population distribution in Britain. There were 11 Catholics in the last 70 patients interviewed. Most expressed fairly strong guilt feelings, an additional factor for the reversal request.

Gynaecological symptoms after sterilisation—It has been suggested that the patients who regret sterilisation have a high incidence of menstrual disturbance.¹ This did not appear to be true in this study and was never the sole reason for the reversal request. Nine patients noted increasing menorrhagia or dysmenorrhoea after sterilisation. Two others had dyspareunia, but none appeared to expect that reversal would cure these symptoms.

Discussion

There is naturally a high degree of subjectivity and bias in a survey of this kind. Many of the patients were very bitter, and sometimes they disagreed with the impression given by the general practitioner. Almost all the patients were distressed, desperate to try any method that might reverse sterilisation, and complained that they felt "incomplete" or "not a proper woman." These unhappy women probably reflect a much larger pool of patients who have no idea that their sterilisation could be reversed. Many patients told of difficulties in obtaining hospital referral. Some, now happily pregnant after reversal surgery, had been told by different gynaecologists that reversal was impossible. Most patients seemed reasonably stable, and psychiatric assessment tended to support this view.

A crucial feature appears to be the age at sterilisation. We do not know when most women undergo sterilisation in Britain but it seems likely that the mean is from 32 to 36.^{1 2} If this is true this group of women differs substantially, as their mean age was only 26.7. Sterilisation seems to be performed at an increasingly early age, particularly in England and America. This trend could lead to a possible public health problem, and it may be several years before its magnitude becomes apparent. Norris³ suggested that sterilisation under the age of 30 may result in regret. These findings tend to support his view. Cox and Crozier⁴ did not find an association between age at sterilisation and subsequent regret, but their sample of young patients was small.

The parity of these patients was not particularly high but many had been sterilised after pregnancy. All but two patients having abortions had been sterilised at the same time. It is not known how many sterilisations are done immediately after pregnancy but perhaps more caution is required when sterilising patients then—when they are likely to be emotionally unstable or unable to make an uninfluenced decision. Most women in this survey had been told that termination would not be undertaken without sterilisation. McCoy⁵ reported that 18% of patients sterilised at the time of abortion subsequently regretted sterilisation, even though there were strong grounds for sterilisation. It certainly appears that sterilisation should not be made a condition for performing abortion.

Many patients claimed that they had been badly counselled. Almost as many patients readily stated that they had virtually "forced the gynaecologist to do sterilisation"; this latter group had often used contraception poorly. Many patients had had side effects when on the contraceptive pill (29 out of 58) or when using a coil (seven out of 24); nine patients had become pregnant while using accepted contraceptive methods. This supports Pond's⁶ statement that "patients who cannot cope with contraception may paradoxically be the worst candidates for sterilisation." Many women claimed almost total ignorance of contraception and some, many of them grammar-school educated, stated that they were ignorant of their pelvic anatomy.

It seems that a general psychiatric assessment obtained before sterilisation is no guarantee of subsequent satisfaction. Nor may social reasons for sterilisation be sound, because circumstances change. Altogether, 78 patients had broken marriages, three were widows, and many of these women felt unable to tell their new consort that they had been sterilised because they attached some stigma to their sterilised state. A poor marriage may be the worst possible reason for sterilisation, particularly now that divorce is so common. Loss of sexual satisfaction was frequent, which is remarkable because most patients already had an unhappy marriage and sexual activity was already unsatisfactory in many cases.

We do not know how many patients regret sterilisation but¹ it may be from 1.5% to as high as 15%. Although more data are needed on how many sterilisations are being performed, some conclusions seem inevitable. Very careful counselling is needed before sterilising young patients, patients with unhappy marriages, or possibly immediately after pregnancy. Sterilisation is a simple procedure, which is sometimes done on demand and often delegated to junior members of the gynaecological team. Paradoxically, it has major consequences for the patient—

indeed, it may be one of her most important decisions. The full psychological implications of sterilisation are still not clear. It is not a notifiable operation, and we are ignorant about how many are done annually. Perhaps only national surveys will provide a basis for solving many of these urgent problems.

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Today's Treatment

Diseases of the Urinary system

Proteinuria

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Proteinuria may arise as an isolated clinical finding or as part of a clinical picture of disease. Minor degrees of proteinuria may be overlooked in dilute urine. It is, therefore, advisable, when testing for protein, to examine an early morning urine specimen. In patients with normal renal function this will be the most concentrated urine passed. Ideally, the specific gravity should be above 1015. The most reliable method of testing for proteinuria is to use sulphosalicylic acid rather than the impregnated paper strip techniques.

An early morning urine sample may also help to establish whether an orthostatic proteinuria is present. Mild proteinuria may be intermittent, and more than one specimen of urine should be examined if there is any doubt.

A fresh, clean urine specimen should be sent to the laboratory and examined, with a standard culture, for sugar, protein, and the presence of red and white cells, casts, and bacteria. Fat bodies may be seen in the urine of patients with the nephrotic syndrome.

A urinary tract infection may entirely explain the presence of proteinuria. It should be remembered, however, that patients with various renal diseases may have a urinary tract infection, and care must be taken in interpreting the results.

Measurement of the protein loss in the urine is of great help in elucidating whether the proteinuria is appreciable and in defining the cause of the protein loss. Protein losses over 0.5 g in 24 hours are important. Protein losses below this figure may still be considered important if one is investigating a condition in which renal disease is suspected. It is unusual, however, to have glomerular disease with protein losses below this figure. A protein loss of over 3 g in 24 hours is within the range of a nephrotic syndrome and makes the likelihood of a glomerulonephritis probable.

Proteins of low molecular weight (about 50 000) cross the glomerular filter and are absorbed and catabolised by the renal

tubules. Thus there is quite an appreciable quantity of low-molecular-weight protein in the glomerular filtrate, but usually this does not appear in the urine in any quantity. Small light-chain globulins constitute some of these molecules and may be present in various conditions associated with renal tubular abnormality. In the Fanconi syndrome, for example, low-molecular-weight globulins may be seen in the urine as well as aminoaciduria. They have also been described in various "interstitial nephropathies" and in tubular damage as a result of tubular toxins such as heavy metals or nephrotoxic drugs.

Identification of various types of protein in the urine needs special physicochemical and immunochemical techniques. Using these methods investigators have been studying the clearance of low-molecular-weight proteins to try to associate them with particular disease processes. The presence of abnormal proteins, such as Bence Jones protein, is best identified using these more refined techniques, while routine plasma protein electrophoresis will often succeed in showing a myeloma protein band.

The clinical picture associated with the proteinuria is important in guiding the direction of the investigations. It is unlikely that there will be oedema or overt signs of a nephrotic syndrome unless the protein loss is greater than 3 g in 24 hours.

Proteinuria may occur on exercise and with fever, but as with postural proteinuria this is unlikely to exceed 0.5 g daily. In many nephrotics there is a postural element affecting the degree of protein loss, but even if the patient rests it is unlikely that the proteinuria will disappear altogether. Postural or orthostatic proteinuria is often considered a benign condition. Nevertheless, several series have been studied using renal biopsy in such cases and have shown various glomerular lesions,¹ including different types of glomerular nephritis, amyloid and non-specific histological change.

Experimental studies have shown that proteinuria may occur as a result of glomerular blood flow changes, without necessarily structural abnormality.² It is seen in congestive cardiac failure, but the quantity of protein lost is again not usually greater than 0.5 g daily. Hypertension associated with proteinuria may pose the problem of a primary renal lesion as the basis of the condition, as opposed to hypertension being the primary cause. This is often difficult to establish, but it is unlikely that with protein losses greater than 2 to 3 g daily the underlying cause is primarily hypertension.