

REOPERATION AFTER DOUBLE VASECTOMY

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IN THEOLOGICAL STUDIES (VI [1945], 416-27) Father Nowlan, S.J., argues well that males who have undergone double vasectomy should not be classed with the impotent and thus barred from marriage. With that conclusion the present writer concurs. But with another of Father Nowlan's conclusions—his certainty of the success of reoperation after double vasectomy, I wish to disagree. While the validity of Father Nowlan's arguments for the potency of the doubly vasectomized stands independently of the success or non-success of reoperation after vasectomy, nevertheless that success or non-success will, for theologians who do not accept Father Nowlan's main conclusion, determine whether such vasectomized males are permanently, or only temporarily, impotent.

Father Nowlan maintains that, in operating upon the doubly vasectomized, surgeons have attained a success which ranges from twenty-five to fifty per cent of the cases which have come under their operational care. To verify his figures he quotes two sets of statistics: one concerning surgical success in operating upon occluded vasa deferentia; and the other reporting success in operating upon vasectomized vasa. As the two types of operation present radically different physical conditions in the vasa, the present writer doubts very much whether one may argue validly from success in the first type to success in the second. But even granted that the two operations are so correlated that statistics for success in the first may be used legitimately for computing percentage-success in the second, nevertheless we intend to show, from the very authorities quoted by Father Nowlan, that both sets of statistics are valueless in proving the percentage figures of success in reoperation after double vasectomy.

Let us consider first the operation upon an occluded vas deferens. Generally, the occlusion results from a gonococcal infection. The purpose of the operation is to circumvent the block or occlusion. Hence the surgeon (1) tests the potency of the vas above the occlusion, and (2) tests the epididymis for semen. If test (1) demonstrates potency above the block, and test (2) discovers semen in the epididy-

mis, an incision is made, and the patent section of the tube is ligated sidewise to the section of the epididymis containing semen. This union is called a side anastomosis. Technically, the operation is known as an epididymo-vasostomy, or a vaso-epididymal anastomosis. It may also be designated as the Hagner operation, after the surgeon who did most to popularize its technique. Popularly, it goes by such names as a short circuit or a by-passing of a vasal occlusion. It is important to note that this first operation is done with freshly cut tubes and sound tissues ready for healing.

But the second operation—reoperation after double vasectomy—calls for an end-to-end union of the completely severed tubes, which for years have been not only severed but often ligated. Hence, in the tubes and tissues degeneration has set in and progressed often enough into a state of atrophy. It is to be noted, then, that the surgeon is not dealing here, as in vaso-epididymal anastomosis, with freshly incised tubes and tissues. While the actual end-to-end union of the vasectomized tubes does not offer unusual difficulty, yet there is great hazard (1) in aligning the lumina of the several tubes so that the tiny passageway remains patent, and (2) in preventing the scar tissue formed in the healing of the wound from blocking the same tiny passageway.

Let us now contrast these operations from medical sources.

F. Hagner has had about 50% success with his surgical attempts to restore fertility to those males who have been sterile because of a pathological condition of their seminal tubes or epididymides. But it is much too soon to declare that scalpingectomized or vasectomized individuals can be made fertile again. Theoretically, it seems plausible. All it needs is the restoration of the anatomical continuity of the oviducts, which might be established by reuniting the cut ends, or the restoration of the anatomical continuity of the seminal ducts by a similar method. Practically, surgeons have not altogether succeeded in this effort. The degeneration of the cut ends of the oviducts and of the cut ends of the seminal ducts with their supporting tissues makes the reversible fertility operation practically impracticable and apparently impossible. The future might give us some appropriate operation for this purpose.¹

Landman here admits fifty per cent success for vaso-epididymal anastomosis, and practically no success for anastomosis of vasectomized

¹ Landman, *Human Sterilization*, pp. 233-34.

tubes. Nor does he even hint that the percentage figures for one operation may be used for the second operation.

Evidence to the same effect comes to me in a personal communication from Dr. Abraham Stone. We have a special reason for quoting Dr. Stone: he is editor of the magazine *Human Fertility*, which formerly enjoyed the title *Journal of Contraception*. The contraceptionists have long been on the alert to find a foolproof method of sterilization which would at the same time be reversible, so that persons who at some future time desired children might have their potency restored. Writing in the *Journal of Contraception* on the occasion of a successful reversal of a vasectomy—a case Father Nowlan likewise reports—Stone says:

The recent report by Freiberg and Lepsky of a successful restoration of the vas deferens after a previous vasectomy is, therefore, of considerable interest. This successful result opens up a new field for further experimentation. With improvement and simplification of the technique, it is quite possible that a vasectomy might soon come to be looked upon as a reversible operation and hence feasible for cases where prolonged but not necessarily permanent sterilization may be indicated.²

If success in the vaso-epididymal operation likewise spelled success in reversing a vasectomy, the contraceptionists, in their eagerness to obtain a reversible vasectomy, would be the first to seize upon and exploit that fact. Yet, some five years after writing the above editorial, Stone, in a personal answer to the present writer's direct inquiry on the point, states:

The reports [of success] to which you refer dealt largely, I believe, with cases where there was some obstruction in the epididymis and where the lumen of the genital tract was restored by anastomosing the vas deferens to the upper part of the epididymis, thus circumventing the obstructed area. I do not think that any of these operations had been performed on patients who had been sterilized—that is, where the vas deferens was actually cut. There is a difference between the first and the second type of operation, because when the vas deferens is severed, the separation takes place fairly high up in the scrotum, and the operation would involve bringing together the severed ends. I should hardly think that it would be possible to obtain a 25 per cent success in reversing a sterilization. While the likelihood of restoring the lumen of a cut vas is not very good, it might, however, be possible in the hands of a skilled surgeon.³

² A. Stone, *Jour. of Contraception*, Oct. 1939, p. 131.

³ *Id.*, to the author, April 10 and Aug. 7, 1944.

Le Comte of Georgetown Medical School writes me:

I do not believe that Dr. Hagner's work on sterilization is comparable to attempts to re-establish the lumen of the vas after it has been deliberately sectioned and ligated. His work, as I remember it, had to do only with instances in which sterility followed disease, mainly gonorrheal epididymitis.⁴

The opinions quoted above all concur in distinguishing the two operations in such wise that success in one cannot be legitimately predicated of the other. Yet a very great difficulty remains to be resolved—a difficulty founded on the reply of a distinguished force and authority in the medical world. In a reply to an inquiry about reversing a vasectomy, the *Journal of the American Medical Association* takes a stand opposed to the one we have thus far supported:

While it is possible to unite the two ends of the vasa, the more sensible operation would be that of epididymo-vasostomy, just as for occlusion after an epididymitis. The operation proposed by Hagner has been most successful. Whichever method is employed, it is essential at the operation to test the patency of the vasa and to aspirate the testicle to see if it produces spermatozoa. The prognosis is poor and only about 30% of operations are successful when judged by finding live spermatozoa in a condom specimen after the operation.⁵

This reply from such an authoritative source as the *Journal of the American Medical Association* caused grave doubt, if not grave confusion, to me. But I obtained reassurance from Dr. H. L. Kretschmer, then President of the American Medical Association, who counselled writing to Morris Fishbein, M.D., editor of the *Journal*, to ask for definite statistics in the matter at issue. Dr. Fishbein wrote:

Replying to your letter of June 5 [1945]: There do not appear to be any extensive reliable statistics dealing with the restoration of the potency of the occluded vas deferens, although such operations have been reported frequently during the past twenty years. There have been occasional successes, but the failures are probably more frequent than the successes. In a statement published in the *Journal of the American Medical Association* on this subject, we stated: 'The prognosis is poor no matter what procedure is employed, and only about 30% of the operations are successful when judged by finding live spermatozoa after the operation.'⁶

⁴ Le Comte, to the author, July 25, 1944.

⁵ *Questions and Answers*, Chicago: A. M. A. Press, (1939), p. 304.

⁶ M. Fishbein, to the author, June 7, 1945.

I wrote again to inquire whether the thirty per cent success represented thirty per cent success in the vaso-epididymal operation, or in restoring vasectomized vasa, or in a combination of both operations. "Replying to your letter of June 9 [1945]," wrote Dr. Fishbein, "The total series of cases is so small that percentages cannot have a great deal of significance."

Our deduction, then, from the Fishbein correspondence is, that any such attempt as that made by Father Nowlan to use percentage figures as a basis upon which to build his conclusions about the success of reoperation after vasectomy or upon occluded vasa is doomed to failure—not indeed because such figures fail to be quoted, but rather because they are based upon so small a series of reported cases that no valid conclusions may be drawn from them. Over a long period of time, I have personally and most carefully scrutinized the *Quarterly Index* of reports from all over the world, only to be disappointed in the very insignificant number of cases therein recorded.

Moreover, to confirm my conclusions on the small number of cases reported, I have interrogated the Regents or Deans of our five Catholic medical schools. The first reply is from Father Anthony Berens, S.J., of Marquette Medical School:

I have seen several doctors about the problem of restoring function after double vasectomy, but they have nothing definite to offer. Dr. Marquardt, who is in the same office with two other urologists, one of whom is the head of our department, says they never had a case. It has occurred to me that perhaps the best thing for you to do is to consult Dr. Herman L. Kretschmer. He is one of the most outstanding urologists in the U. S. He has been President of the American Urological Society, and is now President of the A.M.A.⁷

The second reply is from Dr. I. F. Volini, Acting Dean of Loyola Medical School, Chicago, who states that he knows of no statistics in this field, but refers me to Dr. H. L. Kretschmer. The latter replied:

Some time ago I met Dr. Volini and talked over the subject which you discussed in your letter to me, namely, the success or failure of surgical repair for a previously performed vasectomy. I am sorry I cannot quote figures. As a matter of fact, I do not remember ever reading figures on the percentage of success following the repair of a previous vasectomy.⁸

⁷ A. Berens, to the author, Aug. 17, 1944.

⁸ H. Kretschmer, to the author, March 15, 1945.

Father David McCauley, S.J., of Georgetown Medical School directed me to Dr. Le Comte and Dr. Wm. Herbst of the medical staff. "I do not believe," writes Dr. Le Comte, "that you will prove much from statistics of reported cases, for there are too many factors that enter into the result. Most prominent is that a surgeon is apt to report successful cases of re-union and keep the failures to himself."⁹ "Should I hear of any statistics," writes Dr. Herbst, "that would be of interest to you, I should be very happy to let you know."¹⁰

From the Regent of Creighton Medical School, Father J. J. McInerney, S.J., comes the following reply:

I delayed answering your letter of July 8 because I was looking up some literature on vasectomy. Checking the references from the *Medical Index*, I was unable to find any statement in regard to the percentage of successful operations. I discussed the matter with our urologists; they stated that 25% would be high. It is their opinion that it would be about 2%. However, they have no actual data to substantiate this statement.¹¹

To date no reply has come from St. Louis University Medical School.

We are now ready to take up and analyse the statistics and weight of the authorities quoted by Father Nowlan in direct confirmation of his claim to from twenty-five to fifty per cent success in surgical repair after vasectomy. Three cases of successful surgery are reported in his article. We admit the authenticity of these three cases but add that valid statistics are not built on three cases. Father Nowlan then quotes (1) Gosney and Popenoe, and (2) Dickinson, to the effect that successful surgery after vasectomy has reached twenty-five per cent or more of the cases operated upon.

These last-named authorities, Gosney, Popenoe, and Dickinson are presumably the most weighty in the field because of their familiarity with the California cases. If we accept the above testimonies—and there seems little reason to reject them—we may assert that for any particular case of ordinary vasectomy there is a 25%-50% chance of restoring the vas deferens to normal functioning.¹²

Let us take up these authorities separately and examine their claims. Gosney and Popenoe are the authors of *Sterilization for*

⁹ Le Comte, *ibid.*

¹⁰ W. Herbst, to the author, July 24, 1944.

¹¹ J. McInerney, to the author, July 17, 1944. ¹² T. Nowlan, *art. cit.*, pp. 417-18.

Human Betterment, a pamphlet rather than a book. Their statement is: "Theoretically vasectomy is also reversible. Skilled surgeons have had about 25% success in reestablishing the opening of the tube and getting pregnancy in the wife."¹³ Be it noted at once that Gosney and Popenoe supply no authorities to back up their claim of a twenty-five per cent success in reversing vasectomy. After reading their statement, unsupported as it is by other facts and figures, I decided in the interests of truth to write to Dr. Popenoe (who, by the way, is a doctor of science and not a doctor of medicine) to inquire what statistics he could make available to us, in support of the twenty-five per cent claim of success which he and Gosney put forth.

In view of Father Nowlan's statement already quoted: "Gosney, Popenoe, and Dickinson are presumably the most weighty in the field because of their familiarity with the California cases," the reply of Popenoe to our letter becomes doubly interesting. It is reported here in full.

THE AMERICAN INSTITUTE OF FAMILY RELATIONS

607 S. Hill Street

LOS ANGELES, 14, CALIFORNIA, Aug. 25, 1944.

DEAR DR. CLIFFORD:

In actual practice there is almost never a demand for reversal of vasectomy, and I don't happen to know of any such case in California. More than twenty years ago an attempt was made to reverse the operation, Dr. Margaret M. Smythe of Stockton State Hospital being the surgeon; but when I studied the patients in the State hospitals, I could not locate this man. I do not know of any surgeon in private practice in this State who has attempted it; the attempt may have been made frequently, but in the nature of the case nothing is likely to be said about it. Most of the information was derived from experiments made in Austria in connection with a famous trial with which you are doubtless familiar.

Cordially yours,

PAUL POPENOE, *Director.*

Apparently, then, Gosney and Popenoe cannot be quoted any longer as holding a twenty-five per cent success in reoperation after vasectomy.

A second inquiry directed to Dr. Popenoe for information upon the Austrian trial brought back the following letter:

¹³ Gosney and Popenoe, *Sterilisation for Human Betterment*, p. 78.

Sept. 9, 1944

DEAR DR. CLIFFORD:

There is some scattered discussion of sterilization-reversal in the medical literature, which could easily be picked up through the indices of medical periodicals. So far as the male is concerned, it is an outgrowth of two situations:

1) Accidental severance of the vas. Half a century ago the Mayo brothers described such an instance: 'Complete section of the vas deferens, end-to-end union,' *Annals of Surgery*, 21: 35, 1895.

2) Sterility due to blocked epididymis, with consequent need to cut the vas and implant it at a different point, in order to open a channel for the spermatozoa. This is a well-known, though not a particularly frequent, procedure, and many references to it and descriptions of it can be found in the literature.

The Austrian trial of which I spoke took place in 1933. A Viennese surgeon had operated on many men in the working classes, I think some such number as 150 was mentioned, as a birth-control expedient. He was prosecuted by the government under an old statute prohibiting the damaging of the population, or words to that effect. His defense was that he had not damaged the population, because the operation that had to be performed was a reversible one; it could be undone at any time. This raised the question of fact. The government appointed a couple of referees, surgeons of distinction on one of the medical faculties, I believe it was the University of Graz. They experimented for some time and reported that vasectomy could, in fact, be reversed. The defendant also produced some of his patients on whom he had successfully reversed the operation.

So far as ordinary sterilization of the male is concerned, I should say that reversal was to be more considered as a theoretical possibility than an actual practice.

The situation is approximately the same in the female. There is a considerable literature dealing with operations for restoring a woman's fertility, when sterility is due to the very common cause of tubal closure.

Cordially yours,

PAUL POPENOE, *Director*

We note, first, with regard to the Austrian trial that nothing more is claimed than the possibility of undoing vasectomy and some actual reversals of vasectomy. We are interested in the percentage figures of successful reversals. Secondly, we note these two statements: (a) epididymo-vasostomy "is a well-known but not a particularly frequent procedure," and (b) "so far as ordinary sterilization of the male in this country is concerned, I should say that reversal was to be considered more as a *theoretical* possibility than an *actual* practice" (italics ours). Again, Dr. Popenoe can scarcely be held up as an authority for a twenty-five per cent success in reversing vasectomy.

The third author quoted by Father Nowlan was R. L. Dickinson, M.D. My correspondence with Dickinson on the same subject is as follows. Three letters were exchanged. In the first Dickinson said: "I refer you to the highest authority, namely the new book, *Male Fertility* by Robert S. Hotchkiss, just published by Lippincott."¹⁴ Unfortunately, Hotchkiss reported but one operation performed by himself to reverse a vasectomy; the result is stated in his own words: "It is to be regretted that further information relative to the outcome of the operation is not available at this writing."¹⁵

In a second letter to Dickinson, I pointed out that only one case of reoperation after vasectomy was reported by Hotchkiss in *Male Fertility*, and then asked him (1) what was his personal estimate of success in such operations, and (2) whether one could validly argue from success in vaso-epididymal anastomosis to like success in anastomosis after vasectomy. He replied: "I have not found any figures on end-to-end anastomosis of the sectioned vas. In skilled hands it should be better than implantation in the epididymis. (The demand has been too infrequent.) It is simpler than implantation. Inquire again in a month. I am reviewing all recent literature. Germany's very extensive reports are on permanent methods in the feeble-minded and insane."¹⁶

After a month, I again addressed Dickinson to inquire about the German statistics and received the following information: "There have been almost no restorations reported in German literature. In the 176 page book by Bauer and Mikulitz-Radecker, *Die Praxis der Sterilisierungsoperation*, there is no mention of restoration. You know Hagner's work."¹⁷ It is to be noted, then, that Dickinson, who is Father Nowlan's other authority on the California cases, has nothing by way of statistics to offer about them. Moreover, in the German field, where one might naturally expect rich findings, Dickinson's review of recent literature was barren of results. I admit that Dickinson thinks that end-to-end anastomosis is easier than side-to-side anastomosis, as done in the Hagner operation. This opinion is not shared by the many other authorities already mentioned, among whom is the *Journal of the American Medical Association*.

¹⁴ Dickinson, to the author, Sept. 11, 1944.

¹⁵ Hotchkiss, *Male Fertility*, pp. 184-85.

¹⁶ Dickinson, to the author, Oct. 26, 1944.

¹⁷ *Id.* to the author, Dec. 8, 1944.

But a further word about Dickinson must be added. As quoted by Father Nowlan, he states: "Research is needed. . . on implantation of the cut tube into the epididymis to restore fertility, because the claim of 50% success has hardly been substantiated. It looks as if 25% of success were nearer actuality. . . ."¹⁸ This implantation of the cut tube into the epididymis belongs, according to Dickinson's second letter, to the Hagner type of operation, whose purpose is to restore fertility in an occluded vas. This type of operation has not been used, and, according to some authorities quoted above, cannot be used, to restore the continuity of the vasa after double vasectomy. But, even granting that it has been employed, nevertheless, according to Dr. Fishbein, quoted above, the total series of cases is so small that percentage figures about it are meaningless.

Let us here look for a moment at the diversity of percentage figures of success quoted by various medical authorities in the matter of the Hagner operation (or, as it is likewise called, the vaso-epididymal operation, or the epididymal-vasostomy, or the implantation of the cut tube in the epididymis. Hagner claimed fifty per cent success.¹⁹ Landman accepts Hagner's claim.²⁰ Dickinson states that twenty-five per cent is nearer actuality.²¹ Hotchkiss states twenty per cent should be successful.²² Weisman claims ten per cent success is correct.²³ Eisendrath and Rolnick allow no more than ten per cent.²⁴ The *Journal of the American Medical Association* states thirty per cent.²⁵ But Dr. Fishbein, editor of the *Journal*, added in a letter to me, quoted above, that the total series reported is too small for percentage figures to be significant.

After considering the statistics and counterstatistics reported here, together with the claims and counterclaims of the best professional men in the field, perhaps a feeling of confusion may overtake the reader. Well, I frankly confess that confusion has been a familiar experience of mine in the pursuit and reading of medical literature. For, outside of well-established modes of medication and standard

¹⁸ T. Nowlan, *art. cit.*, p. 417.

¹⁹ Hagner, "Operative Treatment of Sterility in the Male," *Jour. A. M. A.*, CVII (1936), 1855.

²⁰ Landman, *loc. cit.*

²¹ Dickinson, "Sterilizing without Unsexing," *Jour. A. M. A.*, XCII (1929), 378.

²² Hotchkiss, *op. cit.*, p. 178.

²³ Weisman, *You Too Can Have a Baby*, p. 137.

²⁴ Eisendrath and Rolnick, *Urology*, p. 943. ²⁵ *Questions and Answers*, 304.

operations—and happily there are many such—the quest for statistics must follow an extremely cautious course if the searcher is not to be led into error. One reason for a generous estimate of statistical success in the present matter is, I think, the attitude of medical men that no harm is done by operating, since the patient is as well off after the operation as before. Thus, the *Journal of the American Medical Association* remarks: “The operation itself is not dangerous, and if properly done, can do no harm even if unsuccessful. Occasionally it may be repeated later on.”²⁶ “I believe, as a physician, one is justified in advising the patient to take a chance that the repair will be successful.”²⁷

Reputable opinions, such as those just quoted, must lead one to suspect that the chief reason for ill success lies in the small number of cases upon which surgeons have had a chance to exercise their skill and, consequently, to study and develop new techniques to meet the problem presented in reversing a vasectomy. Apparently, then, the vasectomized are not desirous of having their seminal ducts restored to normal functioning. The statistician of one of the best known urological clinics in the United States informed the present writer that in the course of twenty years in the institute's history not a single patient presented himself for a reversal of vasectomy.

But if any credence can be given to reports emanating from Germany to the effect that vast numbers of males have been constrained to submit to state sterilization, there shines the hope that not a few of these unhappy victims of despicable tyranny may ardently wish to be made fertile again. From the normal standpoint, these unhappy sufferers may well be encouraged to undergo surgery in the hope of leading a natural family life. But is there an obligation to do so? My answer is: No. For the prognosis is at present so unfavorable that a moral certainty of success is lacking. Moreover, I hope that the main thesis of Father Nowlan will find general acceptance among canonists, and that therefore the vasectomized will soon be eliminated from the category of the impotent.

As a general conclusion, this will stand: The total series of cases reported both for epididymo-vasostomy and for reversal of vasectomy is so small that percentage figures of success cannot be very significant.

²⁶ *Loc. cit.*

²⁷ H. Kretschmer, to the author, March 15, 1945.



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