SALPINGITIS: THE CASE FOR EXPECTANT TREATMENT

By C. Jeff Miller, M.D., New Orleans, La.

AS HOWARD KELLY once remarked, surgery developing in the hands of men has dealt too lightly with mutilating operations in women, and if the case might be reversed for several decades, with women operating and men suffering the mutilation, there would undoubtedly be a large prepossession in favor of wise conservatism. His point is well taken. Since the ablation of the female sexual apparatus is not ordinarily a procedure which endangers life, there is a tendency, unfortunately a somewhat general tendency, to remove it, in whole or in part, on indications which, in another part of the body, would be considered rather trivial. Function is lost sight of, sentiment is thrown to the winds, and unnecessary and mutilating surgery is done without a consideration of equally satisfactory and more conservative modes of treatment, without a recollection of the fact that a woman's whole scheme of life takes its point of departure from her pelvic

organs. If that one point alone were borne in mind, a new day would dawn in the management of many types of pelvic pathology.

Almost twenty years ago F. F. Simpson read before the American Gynecological Society a paper which revolutionized the treatment of tubal disease. Prior to that time its management had been purely surgical. Operation was done routinely, as soon as the diagnosis was made, and because it was done in the acute stage, ablation of the entire genital tract was often a necessary consequence. The result was not only a group of thoroughly unsexed women, at least in the physiologic sense, but also a death rate approaching 20 per cent. Then came Simpson with his advocacy of the delayed operation, with the plea that surgery should never be resorted to in acute salpingitis until the temperature had been consistently normal for at least three weeks, even after repeated bimanual examination, until there had been absolute recovery from the acute attack, and until there had been a complete absorption of the inflammatory exudate surrounding the primary focus of infection. These astounding proposals could not be ignored, revolutionary as they were, because their advocate was able to show for them in a series of more than four hundred cases the hitherto unheard of mortality of 1 per cent.

Almost from that day the accepted treatment of acute salpingitis has been medical and not surgical, but in spite of the proved results of the delayed operation, there are still those who advocate a return to the old plan of immediate surgery. The fact that the majority of these men are brilliant and expert surgeons makes their arguments particularly dangerous. Their individual results, I grant you, are striking, but we must not lose sight of the fact that the bulk of all surgery is done not by surgeons of this eminence but by men of average ability, or, to speak bluntly, of small ability, whose disregard of established principles may have a very different outcome.

Salpingitis, you will recall, is essentially a bacterial invasion of the fallopian tubes in which practically any organism, either singly or in combination, may be the responsible factor. While it is generally conceded that at least 70 or 75 per cent of all cases are of gonorrheal origin, laboratory confirmation is possible only in a relatively small percentage of these. The gonococcus is an organism which cannot exist without oxygen, and once it has become encapsulated in the tube, death is inevitable and activity ceases. Clinically this process is accompanied by a fall in the temperature, the gradual absorption of the inflammatory exudate, and finally the complete recovery of the patient from the acute attack. The correspondence between the recession of the bacterial activity and the clinical improvement is indisputable, and Curtis makes the unqualified statement that in all his experience he has never isolated the gonococcus from the secretions of patients

who either failed to reveal gross evidence of active inflammation or who had been free from fever for a minimum of ten days. It is his opinion, therefore, that persistently active tubal disease is not, as it has long been regarded, a chronic condition with acute self-originating exacerbations, but rather either a fresh infection from without or a fresh extension upward from a chronically infected lower genital tract.

With the nonspecific organisms the situation is somewhat different. The acute attack tends to subside, the exudate tends to be absorbed, exactly as when the specific organism is present, but the nonspecific organisms are anaerobic, and they therefore, although quiescent, have in them decided potentialities for harm for unknown periods of time. Their longevity has never been definitely limited and the streptococcus, at least, has been isolated from the tube as late as nineteen years after the original attack.

From these facts and from studies of the clinical findings in literally thousands of cases of tubal disease, certain indisputable conclusions emerge. Salpingitis, at least of the specific type, tends to recede spontaneously from the acute stage; that is, autosterilization tends to occur and the woman develops her own immunity and can protect herself against the bacterial invasion which has taken place. In the nonspecific type spontaneous regression is likewise the rule, though the organisms retain their activity for unknown periods of time. In the second place, spontaneous clinical recovery must be considered at least a possibility in every case of salpingitis, though naturally it is more frequent in the mild than in the extremely severe type. In the third place, involvement of the general peritoneal cavity is exceptional and death during an acute attack is equally unlikely.

These are proved clinical facts, the acceptance of which carries the corollary that the factor of safety cannot enter into the plea for immediate operation. The patient, other things being equal, will not die because operation is withheld, and the case for prompt surgery must, therefore, be argued on some other premise. Certain arguments may be promptly demolished. Thus salpingitis is not comparable to such a condition as appendicitis, where delay would be fatal. The diagnosis is usually so clearcut that it can seldom be confused with other abdominal pathology in which prompt surgery is essential. Rupture of a pus tube is an unlikely contingency; in fact, the few cases in which this catastrophe has occurred are reported in the literature almost as surgical curiosities.

Moreover, the other side of the picture must not be forgotten. It must be borne in mind that immediate operation is done in the face of active bacteria, in the face of fresh adhesions, in the face of structures so vascular, so infiltrated and so friable that they may be injured by even the gentlest manipulations, while the delayed opera-

tion is done when the bacteria are dead, when the pus collections are sterile, and when extensive contamination of the field of operation with resulting peritonitis is not so likely to occur. Another consideration not to be ignored is whether a patient already acutely ill from a bacterial disease is in a condition to stand the added strain of surgery since, and this is the crucial point, her life, as we have already shown, does not hang upon its prompt performance. Moreover, it must never be forgotten that surgery, when it is done, is done for the *results* of the acute attack, not for the attack itself, which may subside spontaneously and which may leave no secondary pathology, so that routine operation for a condition which at least in a certain percentage of cases, will be cared for by nature rather than by art, can be classified only as unnecessary surgery.

It has not yet been proved, either, that immediate operation is as safe an affair as its advocates would have us believe. In the hands of the surgeon of exceptional ability the claim is certainly justified. Victor Bonney lost one patient in twenty years, DuBose's mortality is one in four-hundred-nineteen cases, but in general practice the results are very different. I recently had occasion to study six hundred cases of salpingitis, treated surgically, from the records of Charity Hospital and of Touro Infirmary, which comprised the work of fifty-seven different surgeons. The series included both cooled and uncooled cases, and the gross death rate was 3 per cent, or three times as high as the accepted risk for surgery of the tubes. The rate for the cooled cases was less than 1 per cent, while the rate for the uncooled cases was 4.2 per cent. Or, to express it differently, approximately 90 per cent of the mortality occurred in patients who had not been properly cooled. It is something more than coincidence, too, that three-quarters of the postoperative morbidity developed in patients who had not been allowed to recover completely from their original infection. The death rate, you will note, is not the only point to be considered.

These figures from a composite series are to my mind far more representative than are the brilliant individual showings of such men as DuBose and Bonney. They prove again that the mortality of the average surgeon or the average mortality of all surgeons is a far better index to the wisdom or unwisdom of a given course than are the records of individual experts. It cannot be too often emphasized that while the experienced and dexterous surgeon may violate with impunity all surgical principles, such temerity on the part of the average man can lead only to disaster. On the surface it does seem paradoxical to permit a debilitating disease to run its course as a means of fitting a patient to withstand a major surgical procedure, but the facts prove the case.

Looking at it from another aspect, let me point out that immediate operation seldom permits conservatism. Since the involvement of the pelvic organs is general, since localization has not yet occurred, since nature's protective mechanism has not yet been set in order, total extirpation of the pelvic organs is frequently necessary. To quote DuBose's own words, "Pelvic debridement should include at least the removal of the pyogenic membranes with the infected tubes, uterus and ovaries." There is no semblance of conservatism in any such wholesale resection as that. If a competent surgeon is in charge the woman will probably emerge with her life, but she may also emerge with her sexual existence irrevocably ruined. And the tragedy of that lies in the fact that salpingitis is essentially a disease of young women. that the great majority of all cases occur in the prime of functional life. The argument that the tubes thus removed are functionless is unwarranted; Holtz's report, for instance, in which 12 per cent of pregnancies is shown to have followed purely expectant treatment utterly disproves that claim.

Finally, the various types of conservative operation which are supposed to be possible when immediate surgery is done have by no means justified the plan. Splitting and drainage of the tube is advocated with enthusiasm by one surgeon, another pleads for plastic operations such as are done during the chronic stage, a third advocates partial salpingectomy. Aside from the fact that the latter operation is particularly to be condemned because it may pave the way for a future ectopic pregnancy, not a single one of these procedures, as we shall point out later, can show the results which follow carefully ordered conservative methods. As one shrewd observer puts it, if pregnancy does not follow the old method of delayed operation, it is yet to be proved that it follows the revived method of immediate operation. And even granting the argument that a woman who has been treated expectantly and whose tubes are sealed obviously cannot bear children, even granting that argument, I would point out that that woman is no more absolutely sterile than is she whose tubes have been removed at laporatomy for acute salpingitis.

To my mind the only argument in favor of early operation which has the slightest weight is the argument of expediency. Often in private practice, more often on public hospital services, we are called upon to treat patients who cannot rest indefinitely, who cannot, for social or economic reasons, run the risk of a recurrence of their original condition. But even here there is no excuse for surgery until all the dicta of the delayed operation have been observed, absolute subsidence of the acute attack, resolution of the exudate, and a consistently normal temperature for at least two weeks in spite of repeated bimanual examinations, which, by the way, offer a better index of the patient's condition than any amount of laboratory work. It need

scarcely be pointed out that a woman who cannot stand the slight trauma of a bimanual examination without a febrile reaction is clearly unfitted to withstand the greater trauma of a laparotomy with its inevitable intraabdominal insults.

But when, you will ask, should operation be done? When is it finally justified? How long should one delay? I admit that once the patient has recovered from her acute attack the temptation is strong to operate in the interval, but even then the wise surgeon is the one who continues to wait. For one thing, only time can tell whether the first attack will not also be the last. This is frequently the case when the infection is of gonorrheal origin, and in nonspecific infections, as we have already pointed out, the longevity of the bacteria is an unknown quantity, so that the patient's safety is really best assured by an indefinite delay. A safe rule in all instances is to wait until the infection is thoroughly cooled and then to continue to wait. Even if the patient is not cured by this method, at least nothing is lost, for if the attacks continue to recur, if the symptoms continue unabated, if the patient's general health seems likely to be affected, operation can be done quite as safely later.

Moreover, the patient herself should have some voice in the matter, for she is the best judge of her own condition. If my patients consider themselves well, if they are able to resume their normal habit of life and to do their daily work with only brief periods of disability, I am quite willing to agree with them that they are well, even though the pelvic findings may not be entirely to my liking. It is possible, too, given the choice, that the patient may prefer to retain her organs, damaged though they be, on the chance of an ultimate clinical and functional cure. As Chipman well puts it, "Half a loaf, and a painful loaf at that, is better than no bread." A woman's sexual organs are the basis on which her whole life is founded, and her sexual sanctity, to express it as strongly as I can, should be violated only in the face of an urgent need, which a single attack of salpingitis rarely constitutes.

The wisdom of this plan has been repeatedly proved. In more than a thousand cases of salpingitis treated by purely expectant methods Holtz secured 82 per cent of clinical and 12 per cent of functional cures, and had only 2 per cent of absolute failures. Since 1921 in the clinic of Arthur Curtis of Chicago the plan has been to refrain entirely from operation for gonorrheal salpingitis on the principle I have already outlined, that recurrent attacks are fresh infections rather than fresh outbreaks of an original infection. The patients are isolated from their infected consorts, even douches are prohibited, and the treatment is entirely expectant. Not only have the clinical cures been brilliant, but the number of functional cures has been surprisingly large, and it may well be that another generation in medi-

cine will see surgery in such cases entirely eliminated and expectant treatment the routine plan.

It might be well to outline briefly the method by which these cases are handled. The cardinal principle is rest in bed, absolute rest, not for a few days but for many days, indeed for many weeks, until the temperature has been persistently normal for a minimum of two weeks in spite of repeated vaginal examinations. During the acute attack, pain is relieved by ice caps and local applications as indicated, with opiates used sparingly when necessary. The bowels are regulated by mild cathartics and gently given enemas; drastic cathartics have no place in the management of a pathology which can be excited to fresh outbursts merely by intestinal peristalsis. Fluids are forced by proctoclysis, by hypodermoclysis, even by infusion, and transfusion is resorted to in extremely debilitated and toxic patients. Douches are not routine but if they add to the patient's comfort and are cautiously given I do not believe them harmful. Surgery is limited to the opening of localized pus collections pointing in the culdesac or above Poupart's ligament. There is nothing subtle, nothing complicated about this treatment, and I sometimes wonder if its extreme simplicity, its total lack of action, is not the reason why more gynecologists are not willing to follow it absolutely.

When surgery is inevitable, its extent should be based not only upon the pathology present but upon the age and social condition of the patient and, to a certain extent, upon her own desires; if a woman is so situated that she can take the admittedly dubious chance of a functional cure which conservative surgery offers in specific infection, she has certainly the right to take that chance, provided she takes it with a full knowledge of the facts.

Speaking categorically, when the process is tuberculous or specific, bilateral salpingectomy is the wiser procedure; otherwise, unilateral removal of the affected tube will suffice, or sometimes the mere release of adhesions. Hysterectomy should not be done routinely, but only if the uterus is directly implicated in the infectious process, if it is myomatous or otherwise diseased, or if it is so denuded during operation that a useless organ would be left. That is, it should be removed on intrinsic indications and not because extrinsic disease happens to be present.

The same plan should be followed with the ovaries. I am aware that their conservation under such circumstances is still a matter of debate, but personally I believe that every effort should be made to save ovarian tissue. Naturally they must be removed if they are directly implicated in the infectious process, if they are riddled with cysts, or if the circulation cannot be preserved intact. Usually, however, they are not inherently diseased, they have simply been in bad company, and even if the other genital organs must be removed, their

conservation is still warranted. We have no present evidence that the ovaries cease entirely to function at any portion of a woman's life, and if they do nothing more than supply internal secretion to the host they still should be preserved when possible. If extensive resection is necessary, I might add, transplantation is a preferable procedure; its field is limited, but I have more than once seen it avert the trying symptoms of a precipitate menopause in young women.

In this brief paper it has naturally been impossible to handle all phases of the subject, but I hope I have succeeded in making at least one point clear, that salpingitis is an infectious disease in which autosterilization will occur under expectant treatment in the great majority of cases and in which a spontaneous cure, at least clinically, is possible in a very fair majority. There is no indication, therefore, for immediate surgery in any case and often there is no indication for delayed surgery either. The patient has a right to her chance to preserve her sexual apparatus and it is unfair to deprive her of it. If surgery must eventually be done, if after a reasonable trial it is clear that a complete cure cannot be hoped for, then let the operation be radical enough actually to cure the disease, being sure, however, that this ruthlessness is not extended to organs which are not intrinsically involved in the infectious process. In tubal disease almost more than in any pathology of the female pelvis, the sanest surgeon, the wisest gynecologist is he who refrains longest from the practice of his art, but who, when he is obliged to exercise it, tempers his conservatism with sufficient radicalism to ensure for his patient a permanent cure.

512 Hibernia Building.