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CONSERVATISM IN PELVIC SURGERY*

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FREQUENTLY in medical writing and in discussion, the importance of conservatism in pelvic surgery is advanced. Few would challenge the general principle which this platitude suggests. The phrase, however, is loosely used and has been interpreted in a variety of ways. In former years operative mortality was a prime consideration in all surgery. An operation was considered "conservative" if its magnitude was such that it carried little risk to life. Fortunately, with antibiotics and advances in anæsthesia and in operative technique, there has been such a reduction in primary mortality in pelvic surgery that this interpretation of the word is no longer applicable. Sometimes the term conservative has been applied to any operation which does not completely remove all of the reproductive organs. This usage also is an unsatisfactory one as it refers only to the preservation of tissues within the pelvis without regard for their future usefulness. The best interpretation of the word conservatism is one that stresses the conservation of useful function of the pelvic organs. This conception has been called the "physiological approach" to pelvic surgery.[1]

The application of the physiological approach must be based upon a sound understanding of the development and physiology of the reproductive tract and the important role played by the pelvic organs in the complex balance which goes to make up the general physical and emotional health of the patient. Also, the purely pelvic roles of reproduction, sexual function and menstruation must be considered. Any surgical procedure contemplated for benign disease must be done in the light of its influence on these physiological processes. It is no longer permissible to think only in terms of tissue pathology.

As reproductive function and the psyche are closely interrelated, the role of psychological factors in the presenting complaint must be carefully considered. One must also attempt to predict in each case the long-term mental reaction which will follow the performance of any proposed operation. Assessment of the psychological component of gynæcological illness requires a good deal of judgment and understanding of human nature. This faculty is something which every good physician possesses and it need not be considered to be the exclusive property of the trained psychiatrist. Although psychological considerations are important, this aspect must not be overstressed. In the vast majority of women, indicated gynæcological surgery produces no unfortunate psychic consequences. A few moments of simple explanation of the effects of the proposed operation will do much to prevent such complications.

Of the several functions of the pelvic organs that have been mentioned, reproduction is by far the most important. It is a major catastrophe when a young woman loses her ability to reproduce before she has fulfilled that purpose. Influences upon other pelvic functions occasioned by indicated operations are of less consequence and have often been exaggerated. The premature end of menstrual activity can be disturbing, but its loss is a much easier thing for most women to accept. The effect of pelvic operations, particularly hysterectomy, upon the marital life of the woman is a frequent question and a point of importance to the patient. It can be categorically stated that a well-performed total hysterectomy should constitute no cause for anxiety in this regard. Vaginal shortening is not a factor and the removal of the uterus and also the ovaries seldom alters previously established sexual responses.

The first and most important place where conservatism can be practised is in the doctor's office where he makes his selection of cases for operation. In the past, pelvic surgical procedures have on occasion been performed without adequate indication. The paper of Dr. Norman Miller[2] of Ann Arbor, "Hysterectomy, Therapeutic Necessity or Surgical Racket?", published in 1946, focused attention in a rather spectacular way on one aspect of this problem. He showed that one-third of the hysterectomies done in ten representative hospitals were unjustified on review of the clinical histories and pathological findings. This type of review, unpleasant as it is in many ways, serves the purpose of stimulating the profession to self-analysis and the better selection of cases for surgery. Only by critical, long-term follow-up on large numbers of operated patients can the justification for surgical practices be assessed. Such studies have already produced changes in the accepted gen-

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eral principles of management of a variety of pelvic conditions. For example, it has become recognized that although uterine suspension is still useful in certain cases, the indications for this operation are much more limited than was formerly appreciated.

When a surgical procedure is clearly not an emergency, a period of observation will do much to clarify the clinical picture. This gives time for the total assessment of the patient and the proper weighing of the physical and psychic factors involved. Another maxim is that one is on very unsteady ground in performing an operation when a symptom, particularly pain, is present in the absence of demonstrable physical findings. It should be remembered that in many individuals an unjustified laparotomy sets off a chain of circumstances which increases rather than decreases the need for further medical attention. All too frequently a woman with two or more scars in her abdomen which have followed appendectomy, uterine suspension or removal of a so-called cystic ovary, returns complaining of her original pain, with her functional problem infinitely more difficult to treat.

An important point in the selection of cases for operation is the recognition of the anatomical changes that occur normally under the changing influences of regular ovarian function and as the result of pregnancy. The most common oversight in this regard is the misinterpretation of the variations in the size of the ovary which are associated with normal cyclical activity in the younger woman. These common cysts rarely exceed the size of an orange and, although somewhat tender on bimanual compression, rarely produce significant symptoms. A period of careful observation during which the physiological cyst will regress will obviate the need for an unnecessary laparotomy.

It should be borne in mind that the mere presence of uterine fibroids, endometriosis, or an adnexal mass of inflammatory origin does not necessarily warrant surgery. Laparotomy should be carried out only on specific indications. Unless uterine fibroids are causing symptoms or are enlarging rapidly, they can safely be observed. Even in the presence of demonstrable endometriosis it is wisest to wait for an interval at least before contemplating surgery, unless forced to it by the severity of the symptoms. This expectant attitude is based on the recognized observation that the patient's chances of conceiving without operation are considerable, and it is realized that what can be accomplished by conservative surgery is often limited.

In the selection of cases for operation there is another side to the topic of conservatism. It is just as wrong to indefinitely postpone a justified surgical operation as it is to perform an unnecessary one. It is a very false type of conservatism to employ medical methods for conditions correctable only by surgical means. Menstrual irregularities based upon the presence of uterine lesions can only be eliminated by surgery. In the premenopausal years, even in the absence of uterine lesions, severe functional uterine bleeding which has failed to respond to curettage and hormonal therapy should be treated by hysterectomy. The subjection of these patients to long and expensive courses of endocrine injections, merely to preserve the useless and disturbed function of uterine bleeding, has been appropriately called "*endocrimology*". The prolonged treatment by douches, local antibiotics, and office cautery of an extensively eroded and diseased cervix in the premenopausal patient constitutes another example of misconstrued conservatism.

The second place in which conservatism can be practised is in the operating room, in the selection of organs to be removed once operation has been decided upon. The aim should be to deal with the lesions encountered but to leave the patient at least the possibility of pregnancy; and, failing that, to leave her functioning ovarian tissue. Each case must be carefully considered on its own merits. The chief factors which enter into the decision are the patient's age, parity, and desire for further childbearing. Myomectomy for a symptomatic fibroid in a young woman is an example of a worth-while conservative operation.

If, because of age or necessary surgery to the tubes or ovaries, pregnancy becomes an impossibility, the uterus is rendered obsolete and remains in the body as a potential source of future functional disturbance, or inflammatory or neoplastic disease. In any large series of hysterectomies reported, a distressingly high percentage of the patients are found to have had a previous operation at which a useless uterus was left behind, later requiring surgical removal.[3] With the possible exception of certain younger women in whom menstrual function is regarded as important for social or psychological

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reasons, it is a sound general principle that when both tubes or both ovaries are removed, the uterus also should be taken out. The removal of the uterus under these circumstances may seem like radical rather than conservative surgery. If, however, with minimal additional risk to the patient, she can be spared from further dysfunction and subsequent surgery upon a useless organ, the rationale of such thinking becomes apparent. If the patient's general condition is good, hysterectomy can be carried out at the time of dealing with a second ectopic pregnancy which has destroyed the second fallopian tube. Similarly, hysterectomy and Cæsarean hysterectomy have been recommended by some authors in selected cases where a justified sterilization is to be performed.

With rare exceptions all abdominal hysterectomies should be total hysterectomies, for the cervix is perhaps the best example of an organ without function which may be the site of serious trouble in the future. In surgery for pelvic floor relaxation, vaginal hysterectomy at the time of vaginal repair has in recent years become more popular. This trend is based on the principle that in selected patients where the uterus can no longer serve in reproduction, it is logical to remove it during an indicated repair operation.

The practice of this type of surgery demands mature judgment as well as technical ability in order to justify the potential risk of the extended operation. That such a principle can be justified has, however, been abundantly established. Therefore it behooves the operator undertaking any pelvic surgery to have the training, experience and skill to do the optimum, not the minimum, for his patient.

The criticism which has occasionally been advanced that ovarian function is impaired following removal of the uterus in a young woman seems unjustified. Studies on large series of patients after hysterectomy fail to show a premature onset of menopausal changes in the form of clinical symptoms or of ovarian failure as tested by the vaginal smear.[4]

Prior to any laparotomy, where the removal of additional structures is a possibility, a frank discussion of the surgery contemplated and its effects should be held with the patient. In these days of lawsuits and increased medical knowledge by the layman, this becomes an important consideration. Most patients will appreciate such an explanation and support the doctor's recommendation. If the patient has not been properly prepared and at operation more extensive disease than was suspected is encountered, the doctor runs the risk of incurring the disfavour of his patient or is forced to do an incomplete operation.

As previously stated, maintenance of reproductive function is the primary consideration in pelvic surgery. Next in importance is retention of functioning ovarian tissue. Even in the woman who has lost her uterus, the endocrine activity of the ovary is very important and should be preserved. When the abdomen is opened because of ovarian disease, an accurate knowledge of the gross appearance of the physiological variations in the ovary as well as common pathological conditions is important. It should be a general principle of pelvic surgery that if no disease is found, nothing should be done. For the doctor to rationalize to his conscience that symptoms are due to a physiological cyst and to do an unnecessary plastic operation upon the ovary invites further disturbance of normal ovarian function and confirms in the mind of the patient the impression that she truly has something wrong with her ovary. Benign neoplasms of the ovary, when encountered, can frequently be resected, leaving normal ovarian tissue on the affected side. Dermoids and cystadenomas occur in both ovaries in 10 to 15% of cases, a factor which increases the importance of an attempt at enucleation before considering oophorectomy for benign lesions. In dealing with a tubal pregnancy it is important to excise only the involved tube and to leave undisturbed the ovary on the affected side. Although the dissection involved is slightly more time-consuming than is ligation of the conjoined blood vessels to the tube and the ovary, this conservatism is justified when one considers that approximately 10% of women who have had one tubal pregnancy will subsequently have a second ectopic on the opposite side. Without this caution, a woman who is unfortunate enough to have two ectopic pregnancies will become not only sterile but also unnecessarily castrate.

Conservatism has little or no place in the treatment of malignant disease. In the face of such a serious condition, normal pelvic function must be expendable to surgery or radiation regardless of age or parity. In certain early lesions

of limited threat to the patient, exceptions to this general principle are permissible. In carcinoma-in-situ of the cervix where a cone biopsy, carefully studied in multiple sections, has demonstrated no spread beyond the surface layer, conservatism has proven safe. In women of low parity within the childbearing age, amputation of the cervix or merely conization is acceptable provided careful follow-up is maintained. In those women beyond the childbearing years a total hysterectomy with removal of a cuff of vagina is the treatment of choice. Frequently ovarian tumours, particularly solid tumours, pose a difficult problem at operation. When the lesion is clearly confined within the capsule of one ovary and the degree of malignancy is indefinite, a unilateral oophorectomy is justified in the young woman. A similar situation in a patient past childbearing, or a frankly malignant ovarian lesion at any age, demands radical excision of both ovaries, uterus and tubes.

The question of the removal of the ovaries at the time of hysterectomy in order to prevent the later development of ovarian malignancy is still a controversial topic. Most would agree that prior to the premenopausal years such cancer prophylaxis is unjustified. It is not known at what age the ovaries cease to fulfil a useful function. Most authorities agree that some endocrine secretion continues for several years after the end of menstruation. Therefore one is understandably reluctant to remove healthy organs of even potential value to the individual unless the need for their excision can be convincingly supported. In favour of the removal of ovaries at the time of hysterectomy in a premenopausal woman is the statistical observation that approximately one woman in 100 over the age of 40 will develop malignancy of the ovary.[5] It is also disturbing to note in several published reports of cases of ovarian carcinoma that approximately 20% of the women eventually developing carcinoma of the ovary had been subjected to a pelvic laparotomy during the years shortly before the menopause. The surgeon, therefore, must weigh for his patient the 1% risk of ovarian carcinoma against the symptoms which may follow oophorectomy. Individual assessment must be practised. The doctor, by his knowledge of his patient, has an idea of her psychic, emotional and physical make-up and can best assess the consequences of castration for her. In general, symptoms produced by removal of the ovaries near the menopause are not severe. They can almost always be satisfactorily controlled by simple medical means.

From the patient's point of view, pelvic surgical operations can be among the most gratifying procedures in all surgery. On the other hand, the pelvis is a field open to surgical exploitation and abuse by the untrained and unthinking operator whose judgment is based purely on technical considerations. For best results the surgeon must have a sound knowledge of the physiological and psychological needs of his patient, and the influences of the lesion upon them. In the light of this he can practise a true type of conservatism, namely, conservation of useful function. Only when this "physiological approach" is employed in selection of cases and in operating will the maximum benefit to the patient be provided.

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RÉSUMÉ

Le traitement conservateur ne peut plus s'évaluer d'après la mortalité en raison des progrès de la chirurgie; d'autres réservent cette appellation aux interventions dans lesquelles tous les organes ne sont pas réséqués. La meilleure conception du terme semble celle basée sur la conservation des organes en fonction de leur utilité. Le chirurgien ne doit plus penser uniquement en termes de pathologie tissulaire mais il doit aussi prendre en ligne de compte le point de vue fonctionnel. L'interruption brutale et prématurée de la vie reproductive chez une jeune femme représente un drame dans sa vie. L'attitude conservatrice doit commencer au cabinet de consultation. L'auteur recommande une période d'observation dans chaque cas qui n'est pas une urgence et particulièrement dans ceux ou la douleur d'origine obscure joue un rôle prépondérant. Cette expectative ne justifie pas le délai d'une intervention en face d'indications chirurgicales bien établies. Les fibromes, l'endométriose et les formations de tissu cicatriciel résultant de vieilles inflammations des annexes ne forment pas en elles-mèmes des indications à la chirurgie si elles ne causent aucun symptôme. La connaissance des variations physiologiques dans l'ovaire, par exemple, doit éviter de les faire prendre pour des manifestations pathologiques. La myomectomie pour un fibrome symptomatique chez une jeune femme appelée à des maternités ultérieures est un exemple de l'attitude conservatrice bien conçue. Un utérus devenu inutile par l'ablation des ovaires ou des trompes ne doit pas être laissé dans l'abdomen puisqu'il peut devenir une source possible de danger futur. Le même raisonnement s'applique au col de sorte que toutes les hystérectomies abdominales devraient être des hystérectomies totales. Cette attitude conservatrice n'a plus sa place dans le traitement du cancer. La seule exception à cette règle pourrait être le cancer du col *in situ* où les résections en cône peuvent suffire dans certaines occasions. L'exérèse préventive des ovaires à l'hystérectomie chez des sujets dont la vie génitale tire à sa fin est encore le sujet de nombreuses discussions.