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VAGINAL HYSTERECTOMY BY "MORCELLEMENT" FOR FIBROIDS.

BASED UPON SIX CASES.1

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Morrollian as applied by way of the vagina to fibroid tumors of the uterus has long since reached with us a high grade of perfection, and this perfection has suggested the application of the process not merely to tumors heretofore deemed suitable for such an operation—as, for instance, the submucous and interstitial growths—but to the uterus as a whole, where so diseased as to require removal. We are principally indebted to the French surgeons for the best application of morcellation to the fibroid uterus in toto; and having been personally convinced that there is a field for the method, I venture to bring the subject before our Society for discussion. In order to confine this discussion to reasonable limits, I will say at the outset that it should be limited to the question of vaginal morcellation versus

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en masse. To do this the better we must admit at once that the two processes can only come in collision in fibroid uteri below a certain dimension. This has been fixed by some as the equivalent of the average fetal head, but it appears to me that a dimension equal to the pregnant uterus at four or even five months would not be excessive. Assuming this limitation, let us see if within it there are conditions which can be met better by vaginal morcellation than by suprapubic hysterectomy. I believe this query can be answered affirmatively in the following conditions:

- 1. Wherever the mass is largely within the pelvis, especially if it be fixed therein by adhesions.
- 2. Wherever the mass is soft and therefore compressible, as in myoma and fibrocystoma.
- 3. In all other cases where we have a patient in good condition, whose pelvis is shallow, whose vaginal canal is roomy, and in whom the evidences of a pyosalpinx above the pelvic brim are absent.

The differentiation of the above conditions is comparatively easy, so that nothing upon that point is needed here. But a word of limitation is necessary in reference to cases coming under class 1. It refers to the possibility of such cases being fitted rather for myomectomy (vaginal or suprapubic) than for myotomy. There are a good many cases in which, but one or two tumors existing, the evil effects of the disease may be eliminated by the conservative procedure rather than by the more radical. This is a question for sharp differentiation, but it can be made by the ordinary abdomino-rectal, bimanual examination; or, if this be insufficient, an exploratory incision through the posterior fornix of the vagina may answer. This method of exploration is certainly needed in cases where pyosalpinx is suggested by the history, and a few words may be necessary, explanatory of this procedure. We therefore refer you to what we propose saying in connection with the operative measures applicable in these cases.

In the face of the results now obtained upon all sides by the suprapulic method, the opening of this question of vaginal morcellation would seem superfluous. It is done, however, less with a view to the immediate results than to those which are remote. But, so far even as immediate results are involved, the

writer believes that in the hands of an expert operator they can be made better (under the conditions enumerated) with vaginal morcellation than with suprapubic hysterectomy, and he thinks that this statement is applicable with greatest force to the conditions coming within No. 1 of the above enumeration. So far as remote results are concerned, he believes that they easily permit being made better by vaginal morcellation than by suprapubic hysterectomy. The advantage of the one over the other dwells in the fact that the integrity of the abdominal wall is preserved and the opportunity for intestinal and omental adhesions is greatly limited.

In most fibroid uteri it is possible to shell out the mass from its peritoneal investment, so as to leave an abundance of this structure with which an operator can present a relatively normal surface to impinging abdominal structures. This, as we all know, is a matter of much importance in the limitation of adhesions.

As to the method of procedure. The essence of the plan lies in the early securing of the uterine arteries by ligature, and the maintenance of such continuous traction upon the mass while operating as will control the bleeding from its surface—a bleeding then dependent upon the ovarian arteries. Tumors which spring from the lower segment of the uterus, and which by their size and pressure displace the uterus upward, thus obscuring the uterine arteries, should first, when necessary, be removed through the vaginal wall where they impinge thereon, thus permitting access to the vessels in question.

It is an advantage at the outset to explore about the uterus through a free incision into the cul-de-sac. We thus get early information as to the state of the appendages and their location. If these structures are sacculated, suggesting suppuration or cystic disease, one must be guided as to subsequent action by their location. If near the pelvic floor the operation may be continued, but if they are at or above the pelvic brim, particularly if they encroach upon the iliac fossæ, the operation should be abandoned in favor of the suprapubic method. This assertion is made upon the ground that when such bodies rupture high up in the pelvis it is difficult, if not impossible, to properly cleanse the infected territory. Intra-abdominal pressure forces the intestines down in such a manner as to produce a species of ball-valve action, imprisoning fluids in the fossæ or diffusing them as high up as the under surface of the abdominal wall.

The Operation.—In preparing these cases for operation it is well to precede all other steps by a thorough curettage and cleansing of as much of the uterine cavity as can be reached. The cleansing of the vagina, it is needless to say, should be carried out in the most thorough manner possible, using for that purpose a scouring process with green soap, followed by the usual bichloride solutions. In case the vaginal outlet is narrow it should be freely incised upon either side of the median line. After this preliminary work has been accomplished the operator grasps with a stout volsella the cervix uteri, and, drawing the organ forcibly downward, makes a semicircular incision through the vaginal wall at its junction with the posterior surface of the uterus. This incision is carried well round to about opposite the usual attachments of the broad ligaments, and is next intersected at its central point by one carried thence down the posterior vaginal wall to a point well below the lowest reflection of the peritoneum in Douglas' cul-de-sac. The object of this latter incision is to relieve tension at the outer ends of the first incision, thus gaining the largest opening into the peritoneal cavity which is free from the risk of tearing away the uterine attachments of the utero-sacral ligaments and base of the broad ligaments. Tearing at this point will often lead to troublesome bleeding, necessitating delay in order to apply hemostatic forceps or ligatures. Two, or if necessary three, fingers are now introduced into this opening and worked along the posterior surface of the uterus, pushing into the peritoneal cavity as close to the uterine body as is possible. Having once gained access to the cavity of the peritoneum, these fingers are now used to make a thorough exploration of the posterior surface of the tumor, the position and condition of the appendages and tubes, and, in fact, all the conditions which may be present in the posterior half of the pelvis. If this examination reveals the presence of conditions in the appendages which, taken in conjunction with the history, make it clear that a pyosalpinx exists, one must be guided as to further action by the location of the purulent accumulations, as already indicated under the head of conditions appropriate for the operation. If these purulent accumulations be above the brim of the pelvis, it would no doubt be better, for reasons already stated, to abandon the operation in favor of the suprapubic operation; but if the purulent accumulations be low down in the pelvis, they can be evacuated by an aspirator and the

operation be proceeded with as follows: Feeling for the uterine arteries upon either side, a ligature is thrown around first one and then the other, or, if the operator prefer, a clamp on either side may be used to control these vessels. The next step is to make a circular incision about the anterior and lateral aspects of the cervix, this incision meeting that which has already been made through the posterior fornix of the vagina. Increased traction is now made upon the cervix, which traction may be aided by pressure from above, and the lower segment of the uterus is peeled away from its attachment to the broad ligament and to the bladder. As soon as the mass has been enucleated as far as the space at one's command will permit, the entire enucleated portion is cut away, superimposed pressure upon the mass being steadily kept up at this time. The fresh surface which is left is now seized with the volsella and dragged down, enucleation being carried on, first upon one side, then upon the other, then anteriorly, as occasion requires, until another segment of the structure has been enucleated, which is cut away as was the first. Proceeding in this way, the entire mass is gradually shelled out. Ligatures or hemostatic forceps upon the lateral aspect of the mass may be required from time to time in order to control bleeding. As the mass is gradually withdrawn a close watch is maintained, so as to secure the vessels at the cornua of the uterus as soon as they come into the field. Owing to the elongation that the upper border of the broad ligament has undergone in cases of fibroma, this is usually a matter of comparative simplicity. In the process of enucleation it is desirable to separate the lateral and anterior attachments of the mass (the broad ligaments, bladder, and peritoneum) as closely as possible to the tissue that is being removed. By this plan we are, in nearly every instance, able to leave intact the anterior face of the broad ligaments, together with the whole of the peritoneal covering of the anterior face of the uterus. This constitutes a decided advantage in the technique of the operation, for the reason that it leaves a hood of peritoneal tissue which can be used to exclude the coils of small intestine from the field of operation. A portion of the peritoneum upon the posterior surface of the uterus may also be left, but this is not desirable, because it is apt to become necrosed, its sources of nutrition being more seriously impaired than those feeding other portions of the peritoneal covering. After the entire mass has been removed the

appendages should be sought out and removed as in an ordinary vaginal hysterectomy.

The position of the patient in this operation is a matter of some consequence. She should always be in the lithotomy position, and as we proceed in our work it may be advisable to raise the buttocks, so as to place the patient's body at an inclination of about 30°. This tends to keep the intestines from being crowded into the lower portion of the pelvis, and offers one a better opportunity for clearing out the field of operation and placing the necessary drainage.' After the removal of the appendages the pelvis should be carefully explored, so as to remove any portions of the fibroid tissue which may have escaped the operator. Then the redundant peritoneum should be placed below all intestine coils. The cavity which is now left occupies a position at the bottom of the pelvis. This is now carefully packed with iodoform gauze. The incisions in the vagina should next be repaired, and the operation may be considered as finished. A sharp eye must be kept upon the drainage. There is always an unusual amount of serous oozing from these surfaces, and in spite of the gauze it may accumulate unduly in the vagina. Becoming infected, it may contaminate the wounded surfaces and serious results supervene. The vaginal gauze should therefore be removed at the end of twenty-four hours, the deeper gauze being permitted to remain a day or two longer. Should sepsis appear all the gauze should be removed and the cavity kept clean by irrigation. Proper care, however, will prevent such an accident.

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