ON REMOVAL OF THE CANCEROUS UTERUS BY THE ABDOMINAL ROUTE.*

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Excision of the uterus, historically considered, is of ancient date. Soranos of Ephesus, in his book on *Diseases of Women*, published a century before Christ, mentions the operation, but there can be no doubt that it was subsequently forgotten. Coming to the present century, Langenbeck in 1813 successfully removed the whole uterus (by the abdomen) for cancer; followed by Sauter, of Constance, who in 1822 had the first successful vaginal extirpation for cancer. In the following years Blundell, Récamier, Siebold, Delpech, and others performed the operation, but with very little success, so that the operation fell into disuse until 1879, when Czerny successfully reintroduced it. Billroth, Mikulicz, Schröder, Freund, and others soon followed, and the operation now took its place amongst the established proceedings in surgery.

Freund struck out a new path for himself by removing the uterus by the abdomen. His mortality was, however, prohibitive (about 72 per cent.), and it has now been universally discarded for the vaginal operation, an operation which by improved technique and antisepsis has now been performed with a general mortality of 10 per cent., and, in the hands of especially skilled operators, such as Schröder, Sänger, and Leopold, has even been reduced to between 4 and 5 per cent.

Although the vaginal operation for the removal of the cancerous uterus is the one universally adopted at the present time, we occasionally meet with a small percentage of cases which are not to be dealt with by this method, owing either to the bulk of the uterus or to extreme narrowness of the vagina, or, as in the specimen which I am about to show you, from fixity from old peritonitis due to diseased appendages; fixity due to malignant infiltration would, of course, make any operation unjustifiable.

During the last two years five such cases have come under my care, in which, removal by the vagina being practically impossible, I removed the cancerous uterus by the abdomen. All the patients recovered; four of these cases were suffering from epithelioma of the cervix; the fifth was a case of malignant degeneration of a uterine fibroid, the uterus being the size of a three-months' pregnancy, and the vagina extremely narrow. The age of the oldest patient was 60 years, and the youngest 32.

In the last case the patient had suffered for some five or six years from frequent attacks of pelvic peritonitis, originating primarily in a severe attack of septicæmia following abortion induced by herself with a knitting needle. I found the cervix stuffed with malignant growth (epithelioma), but movable, the Fallopian tubes being felt bimanually distended (pyosalpinx), and fixed high up by adhesions.

The operation itself differs in no respect, except in minor detail, from that of total extirpation of the fibroid uterus, the broad ligaments being tied off, and the stumps, with the uterine arteries, turned into the vagina; drainage I consider absolutely necessary in these malignant cases.

I prefer to operate in the Trendelenburg position, a position which renders the operation comparatively easy, and as a ligature material have abandoned silk for very stout catgut, specially prepared with ether, sublimate, and spirit of juniper, and have designed a special broad ligament needle which I have found very useful in this operation.

With regard to the question of recurrence, two of these cases are absolutely free after twelve and nine months respectively, two died at the end of twelve months (one of deposit in the lungs, the other of local recurrence), one died at six months, apparently of growth in the lumbar glands pressing on the ureter. May we not ask, Do we go far enough in our methods of operating on these unfortunate cases? Why not open up the connective tissue of the pelvis, and thoroughly eradicate all infected glands, if any are found, with the contiguous tissue, as in cancer of the breast, where we do not confine ourselves to the removal of the infected organ, but thoroughly clear out the axilla? This could only be properly carried out through the abdomen, but, with modern improvements as to

technique and antisepsis, I believe with a mortality not much greater than by the present vaginal operation. I venture to predict that the operation of the future will be an abdominal one on these lines; an operation with perhaps a slightly higher immediate mortality than the present, greatly counterbalanced, however, by a much longer respite to the patient.

In conclusion, it may be asked, Is the removal of the cancerous uterus a justifiable operation? To which I would reply, that it is both justifiable and proper in carefully selected cases, and for the following reasons: First, the immediate mortality does not forbid it; secondly, recurrence is not more rapid than after other operations for cancer; and, lastly, death after recurrence is not attended with so much suffering, the rectum and bladder being seldom perforated.

ON SUTURE OF FRACTURED PATELLA BY AN IMPROVED METHOD.*

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THE inadequacy of the various methods of suturing the patella after recent fracture, and the subsequent risk incidental to some at least of them, led me to review at length the whole subject of the operative treatment of fracture of this bone; and to try to arrive at definite conclusions as to wherein lay the causes of failure; and to endeavour to ascertain how best to obviate it.

It appeared on an analysis of recorded cases that the causes of failure might fairly be classified under two heads: (1) The adoption of a subcutaneous method, in which no effort is made to relieve the tension in the joint due to the extravasation of blood and serum, and in which accordingly no certainty of accurate approximation of the bony surfaces can be secured; and (2) the use of unsuitable materials for suturing the fragments together, and a faulty method of performing the operation in cases where the open treatment was selected.

1. In many cases, and especially where the separation of the fragments is extensive, free hæmorrhage takes place into the knee-joint, large clots form, the torn fibrous expansion of the quadriceps and the periosteum fall like a curtain over the edge of the upper fragment, and very marked tilting of the broken parts occurs, due partly to muscular contraction and partly to the pushing forwards of the free edges of the fragments by the fluid distending the synovial spaces. Under such conditions the application of a circumferential suture will tend only to increase the tilting of the fragments, and, though it may help to approximate the posterior borders, will almost certainly cause divergence of the anterior borders of the broken patella. In other words, it will tend to increase the angle of divergence between the fractured surfaces. Another objection to the method is that, being applied while distension of the joint is still present, the suture undergoes relaxation and becomes useless when the effusion has undergone absorption. This was very marked in one case in which I employed the circumferential suture, as at the end of ten days I had to remove the silk, which was quite lax and absolutely unsupporting.

2. The methods of direct suture of the fragments by drilling, and of circular antero-posterior ligature, either with silk or silver wire, were also open to grave objection. Silver wire, while theoretically perfect, was, in the size generally adopted, apt to cut through the drill holes, or when used circularly, as in Mr. Barker's method, was open to the risk of dividing a transverse into a quadrate fracture, as has happened in the practice of more than one surgeon. Another objection was the method employed of twisting the silver wire so that a large knob was finally left which often caused irritation to the underlying tissues, and necessitated subsequent removal. While silk was free from the latter objection it presented this grave defect, that if any failure took place in the chain of asepsis, serious risk occurred of infecting the joint cavity along the track of an absorbent material. This applied to both methods, but more especially to Mr. Barker's, where the silk passed between the articular surfaces of the patella and

* Read before the Midland Branch of the British Medical Association.

* Read in the Surgical Section of the Royal Academy of Medicine in Ireland.