bladder separated from the cervix. The vesico-uterine pouch of peritoneum is opened and a "provisional" suture of aseptic silk (afterwards withdrawn) is passed through the anterior wall of the uterus at the highest point which the operator can reach. By traction on this it is always possible to pass another provisional suture at a point still higher, and so on until the fundus of the uterus is reached. When the operation is undertaken for chronic retroflexion, or this with ovarian prolapse, it is not necessary to proceed to full extraction of the fundus. The appendages are examined and if found to be healthy the fundus is sutured to the vaginal incision by two silkworm-gut sutures, which are passed from side to side so as to close the transverse vaginal wound in a vertical direction. By this means the cervix is forced back, any acute flexion of the uterus that might otherwise result is avoided, and at the close of the operation the uterus lies almost horizontally across the upper part of the vagina.

If more than this has been required, as soon as the operator has proper control of the fundus, the latter may be fully anteverted out of the vaginal incision and brought outside the vulva. The appendages, if free, begin to follow; adhesions can be separated by the finger; in suitable cases ignipuncture of the ovaries, or salpingostomy of the tubes, may be performed, or the appendages may be removed. Dr. Dührssen has frequently employed this method for the enucleation of myomata, and occasionally for the removal of small ovarian tumours.

In any case, after replacement of the uterus within the pelvic cavity, the operation is usually (but not necessarily) completed by suture of the fundus to the vaginal incision (vaginal fixation of the uterus). Apart from vaginal hysterectomy I have used this method of abdominal section, "anterior vaginal cœliotomy," in six cases, and have been so satisfied of its value for pelvic work, and especially for anterior fixation of the uterus, that I intend to continue, and perhaps extend, its employment in my future practice.

Nearly all these cases have been cases of chronic retroflexion of the uterus in which prolapse of the ovaries and unsuccessful attempts at mechanical relief by means of pessaries had rendered life a burden, and in these the operation was undertaken primarily to improve the condition and position of the uterus. It was usually preceded by curetting (at the same sitting), and in 2 of the cases, which were accompanied by some prolapse of the uterus and vaginal walls, I finished the operation by plastic repair of the perineum.

I do not rigidly follow the operative details as described by Dührssen, for I find that the simplest and quickest way of getting the fundus outside of the vaginal incision is to use both volsellæ and provisional sutures for the purpose of traction. Volsellæ are better than sutures for the earlier stages of the traction process; sutures are more useful the nearer one gets to the fundus. The uterine sutures (which are of silkworm gut) I remove in six weeks, so that no buried sutures are retained as possible sources of future irritation. In one case I employed ignipuncture of the ovary, and I have also separated extensive adhesions of the appendages after this method of entrance to the pelvic cavity.

All cases have done well. The oldest case has only a six months' history, but, so far, I have every reason to be pleased with the physical and symptomatic condition of the patients. In my first case, by an error of technique, one end of the silkworm-gut suture injured the bladder some three days after the operation had been done, and there was a temporary fistula. I immediately removed the stitch, and passed another suture in its place, and had no further trouble with the case. The close apposition of the uterus to the vaginal wall and bladder appeared to prevent the possibility of any infection of the pelvis from this accident.

The advantages of the operative method I have just described belong, perhaps, rather to the patient than to the surgeon, if it be wise or even possible to differentiate their interests. The way to the peritoneal cavity from the vagina is decidedly more difficult than by the usual abdominal incision, and it is perhaps only for the anterior fixation of the uterus, which cannot be done so well by any other method, that one would deliberately choose this way of operating for the sake of surgery pure and simple.

But the advantage to the patient is very marked and unmistakable. If the operation be done by aseptic fingers and

instruments there can, I think, be no doubt that the patient recovers more quickly, more simply, more surely, and less painfully after vaginal section than after abdominal incision. There is no visible wound or cicatrix, no added fear of hernia, and when the patient is convalescent from her operation, she gets up as from a simple illness, having no belt or rigid rules to keep her in an expectant attitude for further dangers.

A CASE OF VAGINAL CÆLIOTOMY FOR TUBAL PREGNANCY.¹

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IN the light of the recent developments of vaginal surgery, the following case appears to be worthy of record:—

M. M., a female gymnast, aged 23 years, came for advice to the out-patient department of St. Mary's Hospital, Manchester, on March 28th, 1895, on account of persistent metrorrhagia. Vaginal examination revealed a considerable swelling on the left side of the uterus, and the case was considered suitable for treatment in the hospital. On admission the patient gave the following history: She has been married five years, but has had no children and no miscarriages; menstruation always regular and painless until present illness. The last normal period occurred eight weeks before admission, that is, at the end of January; this was followed by six weeks' amenorrhœa, until March 14th, and then by two weeks' metrorrhagia, when she was admitted to hospital.

On vaginal examination, the cervix was soft and enlarged, somewhat flattened, and suggestive of early pregnancy. On bimanual examination, the uterus was found to be anteverted and slightly enlarged. On the left side an elongated spindle-shaped swelling was felt, running up to the left cornu of the uterus, freely movable, and of somewhat doughy consistence. The case was diagnosed as probably one of unruptured (tubal) pregnancy, but it was decided to keep the patient at absolute rest, and to carefully watch for any alteration which might take place in the physical conditions. Accordingly the patient was kept in bed for eight weeks, and during all this time there was a continual slight oozing of blood from the uterus. On examination at the end of this period little change was found in the pelvic condition; if anything, the swelling was rather larger than on admission; the general condition showed no improvement. The patient was very anxious to have something done in order that she might resume her occupation. At the same time the nature of her work rendered an abdominal section very undesirable, as a severe strain was thrown upon the abdominal walls during her gymnastic exercises. I decided, therefore, to attack the distended tube by vaginal section.

Operation, May 23rd, 1895.—After the usual disinfection of the vagina, a transverse incision was made in the vaginal vault just in front of the cervix; the bladder was separated from the uterus and broad ligaments, and pushed up out of the way, and the vesico-uterine pouch of peritoneum opened. The transverse incision was then extended so as to measure about 2½ inches, two fingers were introduced through the opening as far as the fundus of the uterus, and then passed along the left tube. This was found much distended, but fairly movable. The swelling was hooked down, pressed against the vaginal opening, and incised. A large quantity of fluid blood, and a solid body which afterwards proved to be a tubal mole, were evacuated. The collapsed tube was then easily drawn down, and its uterine end ligatured and divided. The distal end was then brought down, tied, and divided, and the whole tube was thus removed. The wound in the vaginal vault was stitched up with catgut, the fundus of the uterus being drawn down into the incision by two silkworm-gut sutures (vaginal fixation of uterus), and the vagina was doused with 1 per cent. lysol solution.

The convalescence of the patient was only remarkable by reason of the little disturbance caused by the operation. There was some burning pain in the vagina, which I believe

¹ Read in the Section of Obstetrics and Gynecology at the Annual Meeting of the British Medical Association held in London, July-August, 1895.

was caused by the lysol, but apart from this the patient had no more disturbance than is seen after curetting. She had no special nursing, and was allowed to move about in bed from the first. She complained of no thirst, and on the third day after operation said she felt perfectly well, and would like to get up.

The sutures fixing the uterus were removed a fortnight after operation, and the patient was discharged on June 20th. Some exudation was felt in the pelvis about a fortnight after the operation, but this had almost entirely disappeared before she left the hospital.

REMARKS.—The operation in this case was so satisfactory and the after-progress of the case so smooth that it left no doubt in my mind that in certain cases of small pelvic tumours vaginal section is much to be preferred to abdominal operation. But unfortunately it would appear that it can only be of limited application. It is, in my opinion, an absolute essential that the tumour to be removed should be either non-adherent or only bound down by recent and easily separable adhesions. When the tumour is firmly fixed then we have the disadvantage of working in a very confined space and by the sense of touch alone. It is true that in most abdominal operations for inflamed tubes or ovaries we have to rely on the unaided sense of touch in separating the diseased structures, but at the same time we have more room to work in and the relation of parts can be better determined. The mere size of the tumour of course also limits the scope of the operation; if this should rise out of the pelvis to a considerable extent then the abdominal operation is to be preferred. Narrowness of the vagina is not in itself a contraindication, although it adds to the technical difficulties of the operation.

The operation must not be confused with vaginal oöphorectomy as practised by Battey, Hegar, and others, in which the incision is made in the posterior fornix of the vagina. The incision through the anterior fornix offers a much more direct way into the peritoneal cavity.

Professor E. W. CUSHING (Boston, U.S.A.) said: Surely there is no subject in surgery which is at present attracting more attention, or which promises to make more sweeping changes in our methods of procedure than the relative advantages of vaginal and abdominal cœliotomy. It sometimes seems hard that just when we have perfected a method of operating we are compelled to abandon it by the continual progress of our art; yet, of course, it is for the best. Thus, just when we had perfected abdominal hysterectomy with the extraperitoneal treatment of the pedicle—until it was a “thing of beauty and a joy”—we had to abandon it for the total abdominal extirpation of the uterus. When we had carried all the minutiae of abdominal section for tubal disease to the utmost perfection, including total ablation of the heavy and suppurating uterus in many cases of pyosalpinx, we find that by the opening of the vagina we can treat many or most of the cases of tubal disease and of myoma better than by abdominal section. In regard to the special operation of anterior colpotomy, which has been so ably described by Dr. Martin,² it has come by a process of evolution and not by a sudden invention. First, in 1882, Peter Mueller described the method of splitting the uterus vertically into two halves, in order to perform vaginal hysterectomy in cases of cancer. Each half was tied off separately. In 1886 Fritsch in his textbook describes his method of opening the anterior fornix first and turning out the fundus through this opening, tying off the broad ligaments from above downwards. It is therefore hardly correct for Mr. Taylor to ascribe the invention of this method to Doyen, although he may have modified the technique in 1887. As far as concerns the operation described by Dr. Martin it is also the result of an evolution and a distinct advance in clean and certain surgery. First Schultze introduced a crude and dangerous method of separating adhesions with two fingers in the rectum and prising the uterus into place, trusting to luck and a pessary to hold it there. Schücking brought the uterus forward, and with a ligature carried by a curved needle passed through the uterine cavity and anterior wall and through the vagina just below the bladder fastened it forward. Säger and Mackenrodt improved this method by pushing away the bladder,

after making a vaginal incision so that the uterus could be safely fastened forward by sutures through the edges of the vaginal incision. Finally Dührssen, by developing and uniting the processes used in this procedure and in vaginal hysterectomy has given us a finished, safe, and admirable operation. In regard to the various measures which Dr. Martin has described I can only suggest that I might question whether when both tubes are diseased and adherent it is worth while trying to save the uterus if by doing so the operation is made more difficult, as it often will be. Especially when the tubes are purulent and the uterus is suppurating, experience with abdominal section has taught us in America that it is better to remove the uterus also. When there is no pus but the tubes are occluded, and there is hæmatosalpinx or hydrosalpinx, the chance of pregnancy, after freeing and opening the tubes, is so small, and the uncertainty whether the contents of the tubes be innocuous is so great, that in my country most women would prefer to forego the hope of posterity in favour of greater certainty of recovery from the operation. If the uterus is to be saved and returned to the abdominal cavity, the less it is injured by forceps and provisional ligatures the better. The instrument shown by Dr. Martin and judicious use of the fingers will generally suffice to bring the uterus out without piercing its walls with needles or toothed forceps. As between the vertical and transverse incision there are some advantages in each, but the vertical has the advantage of less hæmorrhage. Experience will show which gives more room. I will merely suggest that in finishing the operation beginners will do well to avoid taking in too much tissue laterally. There is more danger of putting the sutures round the ureters at the end than there is of cutting them at the beginning of the operation.

Dr. SMYLY (Dublin) thought very highly of Mackenrodt's operation, which he had performed some twenty to thirty times. In cases of displacement, it was an immense advantage to do without a pessary if possible, and the operation had many advantages over hysteropexy, namely, no abdominal wound and no need to wear a belt, and no shock. If the operation was carefully performed, there was no danger of injuring the ureters. Some of his most successful cases had been those of prolapse, in which he found anterior colporrhaphy with Mackenrodt's operation for antefixation a most valuable means of treatment.

Dr. AMAND ROUTH had had a somewhat extended experience of vaginal hysterectomy, but none of anterior colpotomy. He wished to ask two questions. First as to the removal of the uterus in cases where the tubes were deranged, would not a curetting have been all that was required? for unless it could be shown that there was a distinct advantage to be gained by removing the uterus, in these days of conservative surgery, surely it should be left. Secondly, was it an advantage to attack cases of adherent tubes and ovaries in Douglas's pouch through the anterior rather than a posterior incision?

Dr. ALFRED SMITH had performed successfully the operation of colpotomy; he was delighted with its simplicity, and could bear testimony to the rapidity of its performance, the absence of shock, and the quick convalescence. Its very simplicity, however, might be the means of leading to danger, since it might be too frequently performed. The only question to his mind was how very adherent intestine was to be treated.

Dr. WALTER (Manchester) regarded the operation as a most promising one, and almost free from shock. He had had two cases where the patients had previously had abdominal section performed, and they were greatly pleased with the much speedier convalescence that followed anterior colpotomy. He had found the operation rendered easier if the uterus was pushed forward by the fingers of an assistant through the rectum.

A NEW university, entitled “Université Nouvelle,” has been lately established in Brussels under the auspices of certain leaders in the Socialist movement. The new academic body, which has power to grant degrees in all faculties, has started with sixty students. Among the professors are M. Elisée Reclus, the distinguished geographer, and Signor Enrico Ferri, the jurist, to both of whom, we believe, the door to academic preferment is closed in their own countries.

² BRITISH MEDICAL JOURNAL, January 4th, 1896, p. 10.