a necessary precaution. As to douches he believed that in private practice in normal cases they were not required.

VII.—MURDOCH CAMERON, M.D.,
Regius Professor of Midwifery and Diseases of Women,
University of Glasgow.

PROFESSOR MURDOCH CAMERON urged the necessity of internal as well as external examination, in order not only to confirm the opinion formed upon abdominal palpation, but to detect any abnormality in the pelvis or other conditions which might have a bearing upon the labour. He agreed with Dr. Herman, who had ably set before the meeting the ideas now generally accepted, both as to the causes and prevention of puerperal fever. He urged the necessity of isolation, and gave the history of three outbreaks of fever in a lying-in hospital which were stamped out by the early removal of the infected cases.

VIII.—T. MORE MADDEN, M.D.,
Obstetric Physician, Mater Misericordiae Hospital.

DR. MORE MADDEN said: We must all admit that no question of greater importance could be discussed in this Section than that which has been so ably introduced by Dr. Herman, although some of us, including myself, may not be prepared to acquiesce in all his views thereon, nor to adopt in their entirety all the minutiae of the antiseptic precautions which he has advocated. That the chief danger of the lying-in condition arises from the probability of our patients becoming infected by the pathogenic micro-organisms by which puerperal septicæmia is communicated seems unquestionable, and that our primary duty in such cases is the exclusion as far as possible of these sources of sepsis is, of course, equally obvious. As to the methods by which this object may be attained, there appears to me to be still room for investigation and discussion. From my own experience I am convinced that, besides all aseptic and antiseptic precautions, something more is necessary to entirely prevent the occurrence of puerperal fever. We should, in every case where we can, attempt by the administration of tonics, suitable diet, and proper hygienic surroundings, to get our patient into the best possible condition for the lying-in period, since the germs of septicæmia find their most suitable soil in patients previously depressed or enfeebled by any cause. We must not neglect the possible ill-effects that may follow on the using of antiseptic and other precautions before labour, from the mental depression resulting from impressing the patient's mind with an overwhelming sense of the dangers to which she may be exposed. It is quite sufficient if the room be sunny and clean and have no connection with the sewerage of the house. No unnecessary examination should be made either before or after delivery. No one should come into contact with the patient who is not perfectly aseptic, and no one should touch or examine her without first securing the necessary cleanliness by thoroughly scrubbing the hands with soap and water, and subsequently immersing them in a solution of carbolic acid, boric acid, or corrosive sublimate. Lastly, immediately after delivery the genital canal should be irrigated with hot water or with carbolic solution. If these precautions be taken, and if asepsis rather than antisepsis be relied on, we shall as I believe seldom have any need to resort to the use of corrosive sublimate or to any of the other more potent but less safe germicides that are now so commonly recommended.

ON THE OPENING OF THE ABDOMEN FROM THE VAGINA AND VAGINAL FIXATION OF THE UTERUS.¹

By JOHN W. TAYLOR, F.R.C.S.ENG.,
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THE object of my paper is to bring before the consideration of the Section the use of the vesico-uterine space for operations upon the uterus and uterine appendages.

As a necessary consequence of the increasing popularity

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

and success of vaginal extirpation of the uterus the possibilities of this space for surgical work have been brought before the attention of several observers during recent years.

When the bladder has been separated from the anterior wall of the uterus, the latter becomes very accessible to the manipulation of the operator and a large portion of the uterus may be incised, excised, sutured, or otherwise treated without opening the peritoneal cavity.

Further, when the vesico-uterine pouch of peritoneum is exposed and fully opened, the fundus of the uterus and, to a very large extent, the uterine appendages, become accessible also. By traction on the fundus, the uterus may be completely anteverted and drawn (practically) outside the abdominal cavity, the tubes and ovaries may be examined and in favourable cases may be thoroughly inspected, locally treated by conservative methods, or removed; finally, the misplaced uterus may be permanently restored by anterior vaginal fixation to a position more nearly approaching normal ante flexion than that resulting from any other method of radical treatment.

To Dr. Doyen, of Rheims, belongs, I think, the credit of first using and recommending the use of this space or "road" in the operation of vaginal extirpation. His operation may be briefly described as follows:

1. The neck of the uterus is drawn down with volsellæ, a circular section of the vagina is made around the cervix, and the pouch of Douglas is opened behind.

2. The bladder and ureters are separated from the anterior wall of the uterus by the right index finger, the anterior wall of the uterus is divided in the middle line by scissors, and these, at the second or third cut, open the vesico-uterine pouch of peritoneum.

3. The uterus is now drawn down by strong volsellæ, which are applied to the sides of the uterine incision at higher and higher points until the summit is reached, when the body of the womb can be thoroughly anteverted out of the peritoneal opening and brought outside the vulva. If—from the presence of myoma, for example—the uterus is too large at first for this manœuvre, V-shaped portions of the anterior wall may be successively excised until the delivery of the fundus becomes possible.

4. The uterine appendages are now separated from any adhesions and drawn outside; special forceps—*pincers à mors élastiques*—are applied to the broad ligaments almost vertically, from above downwards, so as to include the appendages as well as the uterus in the parts to be removed, and an incision just outside the forceps, first on one side and then upon the other, liberates the uterus and its appendages and completes the operation.

This method was formulated and employed by M. Doyen in 1887, and has been used by him in over 100 operations. It is specially applicable to certain cases of myoma and to some cases of inflammatory disease, as well as to cases of uterine cancer, and, when forceps are used, it is the easiest and most rapid method of vaginal hysterectomy with which I am acquainted.

I have removed the uterus in this way in less than twenty minutes. Personally I prefer the use of ligatures to that of forceps for hæmostasis, and accordingly but rarely use the latter. When I do I certainly prefer the *pincers à mors élastiques* of M. Doyen, which appear to me to be far superior to those in general (English) use. But this may be regarded as a detail of secondary importance. The most valuable essential of the method I have just described consists in the forward and downward traction of the anterior uterine wall and the ease with which, in this way, the fundus can be brought under the direct observation and manipulation of the surgeon. I cannot speak too strongly of the advantages which this proceeding affords.

The same principle which M. Doyen has utilised in the operations of extirpation or removal runs through the various methods employed by Dr. Dührssen, of Berlin, in the more conservative surgery of the uterus and its appendages, but he obtains the delivery of the uterus through the anterior vaginal incision in a slightly different way.

In these operations, after drawing down the cervix with volsellæ, a short transverse incision is made in the anterior vaginal vault immediately above the portio vaginalis of the cervix. The incision is deepened with scissors and the

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

By ARCHIBALD DONALD, M.A., M.D., C.M.,

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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

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