II. SIX CASES OF TRACHELORRAPHY.

By Skene Keith, M.B., C.M.

Operations for restoring a torn cervix uteri are not yet generally recognised in the southern parts of this country, and on several occasions I have been surprised to see performances on the cervix called by the operator Emmet's operation, which I know would have astonished the great American apostle of clipping and stitching. The few cases which I wish to relate bring out forcibly the necessity of following up the after-history of the patients. I have seen or heard of several who were no better some months after the operation, and who were supposed by the operator to have been cured,—for example, I know of one lady who a few months after the operation was no better, but rather worse, as she was suffering from constant bloody discharge in addition to her other troubles. This discharge was accounted for by the presence of a wire suture in one lip and the want of improvement by complete failure of union, yet it may have been put down as a cure, as the patient did not see the operator after the first few weeks.

Case I.—Mrs S. had suffered for fifteen years from pain in both groins, and from a constant aching in the region of the sacrum since the birth of her only child. The labour had been a natural one. After years of treatment, she at last saw Professor Skene of Brooklyn, and was advised by him to have the cervix uteri repaired. The cervix was torn on both sides of the os, almost to the vagina, and there was some, though not very marked, rolling out of the lips. The uterus was of normal size, and was not displaced.

Dr Skene allowed me to perform the operation, and assisted me, on the 25th December 1881. Sim's speculum was used to bring the cervix into view in this and the other operations. After passing a sound, I fixed on to each lip of the cervix a double tenaculum at the spot where the centre of the external os was to be. With Skene's hawk-bill and Emmet's scissors I pared first the left and then the right side of the cervix, leaving the central part untouched for the cervical canal. There was little hæmorrhage. Three sutures were required on each side; and after they had been tied, I passed a sound to be quite sure that the cervical canal was patent. This precaution is not altogether unnecessary, for I have since seen a cervix on which a so-called Emmet's operation had been performed, but where the menstrual discharge after the operation escaped through a small opening at the junction of the cervix with the vagina.

Mrs S. had retention of urine for twenty-four hours, and this was the only trouble she had after the operation. The sutures were removed on the seventh day; she sat up on the tenth; and

at the end of the fortnight she came to Dr Skene's consulting-room. The union was not so good as it might have been. However, the backache was quite gone, and the pain in the groins was not so bad. I have not heard of her since.

CASE II.—A lady, aged 26, was seen by my father, Dr Thomas Keith, in April 1882. Two years before she had been delivered of a seven months' child with forceps, after having been in labour with convulsions for forty-eight hours. Since then she had suffered from constant backache and leucorrhœa. On examination with the speculum it was seen that the left side of the cervix was torn, and that the tear extended into the mucous membrane of the vagina. The right side was intact. The cavity of the uterus measured 4 inches, and there was no displacement.

In May 1882 I operated in the same way as in the previous case, except that one side only had to be repaired, and that two of the eight silk sutures which were required were entirely in the vaginal wall. After the stitches had been tied, the tear measured $2\frac{1}{8}$ inches. The patient had no trouble after the operation. On the ninth day two of the sutures about the centre of the line were found to have cut their way out. Injections of hot water were given night and morning, and the other silks were left in for two more days. Three weeks after the operation the cervix looked almost as though there had never been anything the matter with it. The uterus now measured $2\frac{1}{2}$ inches. The backache and leucorrhœa had entirely disappeared.

This lady kept perfectly well for seventeen months. She was then delivered of a child at term, and since then has had a slight return of the old troubles. A short time ago Dr Keith found that there was a small tear anterior to the former one.

CASE III.—This patient, aged 29, saw Dr Thomas Keith in March 1882. She had, at that time, been suffering for $4\frac{1}{2}$ years—since the birth of her only child—from backache and pain in the left groin. The labour had been quite a natural one. The backache had steadily increased, and more especially during the last twelve months. The cervix was hard, torn on the left side only.

In July, I operated. On account of the hardness and hypertrophy of the cervix, I had to remove a thick slice of tissue before I was able to turn in the everted edges. The bleeding was rather free at first, but had quite ceased before I introduced the five sutures, which were necessary to bring the parts nicely into position. Sutures were taken out on the ninth day, and on the eighteenth the patient went home. The line of union was very good. The backache was gone, and the pain in the left side was somewhat better. In December of same year patient wrote to say that she had no pain and was cured. She kept well until six months ago, then leucorrhœa appeared accompanied by occasional pain in the side and back. Her doctor has told her that she is

much better for having had the operation done, and I suppose that the present illness is not due to any opening up of the cicatrix.

Case IV.—Mrs H., aged 31, suffered from backache, pain in the left groin, and leucorrhœa for ten months, since an abortion at about the fourth month. She had been a patient of Mr Butler-Smythe in the Grosvenor Hospital for Women and Children, Westminster, for a number of weeks, and had improved to a certain point, but could not be made to advance farther by any of the usual treatment for such cases. When Mr Smythe asked me to look at the case the cervix was torn on both sides, principally on the left, and the everted lips were covered by exuberant granulations, which bled easily. The uterine cavity measured 2½ inches, and the sound passed backwards with a slight curve. Mr Smythe asked me to operate, and I did so in April 1883. There was no special difficulty in the operation. I was able to raw the right side with one snip of the hawk-bill scissors, as the tear on that side was small and required but one suture; three were put in on the left. Patient suffered from no pain nor disturbance after the operation; and when she left the hospital the cervix looked beautiful. The leucorrhœa was quite stopped, the backache somewhat better, and the pain in the groin as bad as ever. Now she is perfectly well.

Case V.—Mrs M., aged 36, had not felt well for years, and since the birth of her last child, seventeen months before I saw her, had suffered from constant backache and leucorrhœa, and frequently from facial neuralgia. On examination, the perineum was found to have been partly torn, and what was left of it was lax and soft. There was a considerable rectocele, and this caused great straining at stool. The cervix was low down, large, hard, torn, and the lips were much everted, the posterior being fully twice as thick as the anterior. The uterus was slightly retroverted, and the cavity measured 3 in.

In May 1883, I pared and brought together the everted lips. There was some difficulty in doing this on account of the difference in thickness. Six sutures in all were put in. At the same sitting I cured the rectocele by repairing the perineum. Five weeks after the operation the cervix could not have looked better. The patient went to the sea-side, and although she came back looking very anæmic and not feeling well, there had been no leucorrhœa nor faceache, and the back did not pain as much as formerly. In December, the backache began to get worse, and I found that my patient had become pregnant, and that about one-third of the cicatrix in the cervix had given way. She aborted, and I again pared and brought together the everted lips, this time with wire. A week ago patient wrote to say that she was feeling much better.

Mrs L., aged 24, was well until after the birth of her second child, four years ago. After getting up she suffered from bearing-down pains, which were relieved by wearing a pessary. Six months ago she was delivered of a big baby with forceps, and remained in bed for five weeks. Since then she has suffered from constant backache and pain in the left groin, and has had a profuse yellow discharge. When I saw the patient last November the uterus lay low in the pelvis. The cervix was deeply torn on both sides, and there was a great deal of rolling out of the lips. The vagina contained a large amount of glairy mucus. After two months' treatment as an out-patient, during which time the cervix decreased in size and the leucorrhœa got less, I thought that the tear would not improve farther, as it was an irregular one, and therefore operated. On the ninth day the patient felt perfectly well and had no pain. She went home at the end of 9 weeks, nursed her two children with measles, and her husband who was also ill, and felt perfectly well for three months. Since then there has been profuse discharge, with pain in the stomach, and I have heard from Mr Malcolm, who has seen her at the Samaritan Free Hospital, that there is considerable suppuration along the line of the cicatrix on the right side, though the deeper parts appear to be quite firm.

This operation of Emmet's, when properly performed, is certainly of benefit in suitable cases, but I do not believe that it ought to be a very common one, for there are few women who have had a child without having their cervix uteri more or less injured, and most of those injuries do little harm. In my notes of a year's out-patient work in the Samaritan Free Hospital, I find that I have marked down that there was a well-marked cervical tear in forty-two cases, yet in five only did I recommend operation, and two of those five were on account of induration due to excessive applications of caustic. Careful application of a mixture of carbolic acid and tincture of iodine, with the hot douche and support of the uterus when necessary, was found quite sufficient to heal up the other cases. Even in the Women's Hospital, New York, Emmet's operation is not a very common one. In four and a half months of the winter of 1881-82 I saw it performed there twenty-one times, and I was present at all the operations during that time.

Trachelorraphy is not a very easy operation, at least in most of the necessary cases, for in those the tissues of the cervix are much harder than natural. Were it safe to draw the cervix entirely outside the vulva there would be little difficulty, but as this cannot be done, I have found that the next easiest position to have the cervix is at its natural place, at the upper part of the vagina, provided always that the patient is placed well in Sim's position, and that the speculum is well held. There is far more room here than at any other part of the vagina.

In forty cases I have but once seen hæmorrhage of any moment.

In the others it either stopped before the stitches were introduced or after they had been brought together, and I do not think that it is of importance what kind of sutures are used. In my next case I shall probably use wire for the crown ones, and silk, prepared according to Dr Skene's way, for the others. The needles are of much greater importance. Dr Emmet used round ones, but I do not find that there is any objection to lancet-pointed needles, and certainly they go in much more easily.

It is a great comfort to fix on to each lip a tenaculum of some sort, then one gets greater command over the cervix, and can keep it steadier than if a loop of thread or any other means be used.

Dr Wilson said that the Society had much pleasure in listening to the paper. He was very glad to find that Dr Keith regarded the operation as one seldom demanded, as he had been inclined to think, from the frequency with which it was done in America, that either the condition was more common there than here, or else that the operation was performed more frequently than there was any need for.

Dr Berry Hart said he considered Dr Keith's an extremely interesting and judicious paper. He had not much experience in the operation personally, and in all the cases of split cervix which he had seen he had only seen one in which he advised an operation. His main difficulty was that he could not quite see the pathology of the condition, and had some difficulty in connecting the pain and other symptoms felt with the particular state of the cervix. He thought the cases for operation are those in which there is much eversion and granulation and leucorrhœa. He would like to ask Dr Keith what other lesions were present when he operated, and also under what conditions of associated disease he would regard operation precluded. In some cases which he had seen operated on he had found that the patient attributed a whole train of symptoms to the operation. There was a wide field for pathological observation in these cases.

Dr Milne Chapman said that he had done Emmet's operation four times, the indication for it in each case being tear of the cervix with ectropion of the lips and the presence of a large heavy uterus. In the first case union did not occur, but the uterus was slightly reduced in size; in two others, though union occurred, little benefit was derived from the operation. The fourth case was a success both immediately and remotely. He believed that the pathological history of these cases was somewhat as follows. On the occurrence of a tear at delivery a condition was produced in which we had the lower end of the cervical canal exposed and flanked on one or both sides by a raw surface uncovered by epithelium. A natural attempt at repair by first intention occurred, but in most cases was counteracted by the imperfect coaptation of the surfaces and the flowing over them of the lochial discharges. During the subsequent process

of cicatrisation a degree of local hyperæmia was occasioned, and this interfered with the process of involution, and as a result the uterus remained large. The torn surface in course of time became covered over by epithelium of the same character as that of the cervix, as the cervical epithelium proliferated much more rapidly than did the squamous epithelium covering the vaginal aspect. This new surface came to resemble in all respects the cavity of the cervix, being thrown into folds and furrows, and covered with a single layer of cubical epithelium, through which the vessels readily shone, and hence the villous vascular appearance. The operation consisted in the removal of this newly developed cubical epithelium, along with the new cicatricial tissue, the stitching together of the rawed surfaces, and the consequent turning in of the exposed cervical canal. Dr Chapman, however, attributed much more importance to the enlargement of the uterus than to the presence of the tear as productive of suffering in these cases. The heavy uterus accounted for the backache and other symptoms, while the increased cavity surface occasioned the menorrhagia and leucorrhœa, the latter condition being further aggravated by the secretion from the surface of the exposed cervix and the frequently associated condition of cervical catarrh. The greatest benefit of the operation appeared to be derived from the diminution in size of the uterus which so frequently resulted after its performance, and he was greatly struck with the report of one of Dr Keith's cases where a reduction in size of 1½ inches occurred in three weeks. It was well known that a process of artificial involution frequently followed any operative interference on the cervix, as, for instance, dilatation by means of tents, and the interference involved in Emmet's operation seemed specially to favour this process. He fully agreed with Drs Keith and Hart that the operation should only be performed as a last resource in cases which had resisted all ordinary treatment.

Dr Barbour's experience of these cases had been limited to the eight or ten cases which Professor Simpson had done. In not more than half of the cases operated on had any benefit followed. He thought that Emmet's operation rested on a perfectly sound pathological basis. If the condition is kept up by eversion of the cervical canal, Emmet's operation is preferable to that of Schrœder. But Küstner's recent paper shows that in a great many cases the results aimed at by Emmet can be obtained by the judicious and persistent use of hot water. By this mode of treatment the growth of the squamous epithelium of the vaginal portion is caused to encroach upon the cylindrical epithelium of the canal, and restoration of the normal condition is thus gradually brought about. Those cases which persistently resisted this treatment were those in which he considered Emmet's operation was required.

Dr Arnott had been greatly interested in the cases discussed. He thought that Dr Keith did rightly in discriminating between

those cases in which a woman was merely sent out of the hospital with a good cicatrix, and those in which permanent improvement of the health followed the operation. He thought it well to make a distinction between the benefit derived from the operation as a whole, and that which followed simply the depletion of the congested uterus during the operation, and the rest in bed which the operation involved. He considered it would be a good plan to do as many operations as possible, and then having accumulated a sufficient amount of material to compare the results derived.

Dr P. A. Young referred to the fact that not so very long ago it was the fashion to split cervices, and now the opposite practice prevailed. With reference to the efficacy of the operation, he mentioned a case related by Dr Playfair of London at the International Medical Congress. The patient had been under his care and constant treatment, suffering from split cervix for ten years, and at last was advised to go to New York. When there Dr Emmet operated, with the result that the whole of her bad symptoms entirely disappeared. He joined with the rest of the Fellows in expressing his sense of the judicious nature of Dr Keith's paper.

Dr Brewis said, that four out of the five cases of trachelorraphy done by Dr Macdonald during the past winter were successful, and the failure of the fifth could easily be accounted for. There was a deep tear on the left side of the cervix, accompanied by shrinking and contraction of the broad ligament of that side. This rendered the operation difficult, as it prevented the cervix being drawn down to the vulva. The stitches were introduced satisfactorily, and the patient had no bad symptom during the first week; it was found that when the stitches came to be removed the tear had opened up again, and the condition was as bad as it had been before the operation. He considered this result due mainly to the unequal traction brought about by the two broad ligaments. In one of Dr Macdonald's cases there had been considerable hæmorrhage on the third day. In one of the cases he had found the patient collapsed and faint from the loss of blood. He used hot water and Dr Sidey's styptic, and by these means checked the hæmorrhage. Some days after he found the whole vagina charred, and though he at first attributed this to the hot water, he found afterwards that this was due to the styptic. It is well in cases of trachelorraphy to instruct the nurse to watch for hæmorrhage, as otherwise a patient may lose a very large quantity of blood without any one being aware of it.

Dr Webster had a case five years ago which he wished to mention. She had a well-marked cervical tear, and had all the associated symptoms of backache, discharge, etc. He regarded it as being a bad case, and gave the patient a bad prognosis. He sent her to Dr Hart, and found sometime afterwards that the patient was quite well, and on inquiry he found that Dr Hart's treatment consisted solely in the use of hot water.

Dr Skene Keith thanked the Society for the way in which it had received his first paper there. When he returned from America he had had too sanguine ideas of the value of the operation, and was eager to perform it on all possible cases. Since then he had modified his views; and even by Emmet himself the operation was now one which was comparatively seldom performed. Those who employed it most frequently were chiefly the men further west. As to the pathology he could say little about it. Nearly all the cases varied widely in the local conditions; usually the uterus is considerably enlarged. He readily admitted that there were many cases in which rest in bed and hot water would effect a cure, and of course these are cases in which he would not operate. He would certainly not operate in any case where there was much cellulitis, unless in old standing cases which had resisted all other treatment, and in them he would operate with great care. He had not seen much hæmorrhage occur during the operation. In one in which Dr Lee was operating the cervix was very short, and a large arterial vessel was cut, but though the hæmorrhage was profuse for a little, it was easily secured.

III. SOME CASES OF CLINICAL AND PATHOLOGICAL INTEREST IN THE BUCHANAN WARD, UNDER PROFESSOR SIMPSON, 1883-4.

By J. W. Ballantyne, M.B., C.M., Buchanan Scholar.

Before proceeding to the consideration of some cases of special clinical and pathological importance which have been treated in the Buchanan Ward during the past ten months, it may be not uninteresting to pass in review the antiseptic methods and preparations which have been employed during the above-mentioned period.

The ward having been closed during the month of August and the first half of September 1883, was reopened on the 15th of the latter month, at which date also I entered on my duties as non-resident assistant under Professor Simpson. The antiseptic agent at that time in use, both for the major and minor gynæcological operations, as well as for the purposes of vaginal irrigation, was carbolic acid in its various forms (solution, gauze). It was used at the first cases in which abdominal section was performed, the instruments and sponges being kept lying in the solutions of it (1 to 20 and 1 to 40), whilst the dressings applied to the wound were also carbolized. All these cases did well. On no occasion was the carbolized steam spray used during the operation, although in several cases it was set agoing in the room for two hours previous to the making of the first incision. About this time corrosive sublimate was brought prominently before the notice of the profession at the meeting at Freiburg in Breisgau,