Original Articles.**TREATMENT OF COMPLETE PROLAPSE OF THE UTERUS.**

BY J. C. IRISH, M.D., LOWELL, MASS.

NEXT to cancer, or myoma, of the uterus, procidentia is the gravest affection with which we have to deal. The only direct danger to life attending this disease is the somewhat remote one, that the uterus by its constant exposure to irritation might become the seat of malignancy oftener than one in normal position. Whether such is the fact or not I do not know; still it would not be unreasonable to look for such a result in view of what takes place in other organs and tissues when exposed to long continued irritation. Yet it is in other respects that the gravity of the disease exists. It is in the great incapacity of these patients for all active pursuits, and in their constant suffering, which the lapse of time increases steadily. When left to themselves their condition is entirely hopeless.

I call attention to these very trite facts, because they have an important bearing on the means of cure more or less radical that it would be justifiable for us to employ. Unlike other affections of the uterus, this one does not seem to have received its fair share of attention. All palliative means of treatment—as pessaries, tampons, and astringent applications—may be dismissed with very few words. They never cure, and only rarely relieve the patient. They are troublesome to apply, and require constant watching and readjustment; while on the other hand they usually fail in the matter of temporary relief. We are therefore forced to have recourse to more active surgical treatment, if we hope to cure or materially benefit the sufferer from complete prolapse.

Among the operations that have been suggested and done for the relief of these cases, are the following: (1) Anterior and Posterior Colporrhaphy, (2) Ventral Fixation, (3) Abdominal Hysterectomy, (4) Vaginal Hysterectomy.

Some of these methods of operating have been employed, up to the present moment, so small a number of times, that it is difficult to estimate precisely their comparative value, or select the particular cases to which one or the other of them would be especially applicable.

ANTERIOR AND POSTERIOR COLPORRHAPHY.

Until recently, the operation for prolapse that I have done has been anterior and posterior colporrhaphy or speaking more accurately, an anterior colporrhaphy with perineorrhaphy in most cases. Often the pelvic floor has been sadly in need of repair; but in long standing cases there has seemed to be a great lack of material for reconstruction. In some cases, too, an elongated cervix has required amputation.

The combination of all these surgical procedures makes about as tedious an operation as could well be imagined. The results, when compared with mechanical modes of treatment previously in vogue, are brilliant; but when considered by themselves they are far from satisfactory.

In the absence of any record of cases in which I have done colporrhaphy, anterior and posterior, I am forced to give in a general way the results of my experience. Still my number of colporrhaphies is small

enough to permit me to do so with approximate accuracy, and large enough for me to estimate very fairly the value of the operation in my hands.

About one-half the patients on whom I have operated have been practically cured; that is, the uterus has since remained high enough in the pelvis to give no further inconvenience. Strangely enough, among the successful cases, were two patients more than sixty-five years of age, and one seventy-three. In each case there had been complete prolapse for many years. With each of them there was present considerable atrophy of structures of the pelvic floor, so that the posterior operation was a colporrhaphy rather than a perineorrhaphy.

The operation, with me, has been much more successful in spare patients than in stout ones. Probably among the latter there is greater intra-abdominal pressure. In several cases complete prolapse has been changed to one of the first or second degree; that is, the operation has been a partial failure. Still these patients have been able to wear pessaries, which have prevented a return of the procidentia, and afforded them much relief. The operation was a complete failure in three cases; procidentia, in as aggravated a form as before, recurred in all of them in less than a year.

VENTRAL FIXATION.

Ventral fixation, up to the present time, has been done mainly for retro-flexions and retro-versions, with degrees of prolapse less pronounced than that under consideration. Yet there are several cases in which the operation was done for complete prolapse with entirely satisfactory results.

The value of ventral fixation in versions with descent of the uterus has been well established by many successful cases. There would seem to be no reason why the operation should not be as useful and successful in that much graver lesion of procidentia as in the milder forms of prolapse. Since ventral fixation is proposed as one of the modes of treating complete prolapse, a brief reference to several of the methods that have been employed in attaching the uterus to the abdominal wall may be permitted.

Leopold scarifies the wall of the uterus and attaches it to the abdominal wall by three sutures through the fundus brought to the outside. Ligatures removed in twelve days.

Krug places patient in the Trendelenburg posture, and carries the uterus with a sound to the abdominal wall. He makes a small incision down to the peritoneum, but not through it, over the fundus. A modified Peaslee needle is passed through the abdominal wall one-quarter of an inch from incision; the anterior surface of the uterus is scarified with the edge of the needle, then a ligature is carried through the fundus and out on the other side. Two such ligatures are used which close the abdominal wound.

Dr. Marey fixes the uterus with a stitch through each round ligament. Tendon suture buried.

Dr. Currier of New York reports a case in which he used silver-wire sutures, carried through fundus and brought out through the abdominal wall one inch from incision on each side. Sutures removed in two weeks.

Bernay removes an ovary, and fixes pedicle in abdominal wound.

Pozzi stitches fundus to abdominal wall with continuous suture but does not bring it outside.

ABDOMINAL HYSTERECTOMY.

Dr. Polk of New York reports four cases of procidentia treated by abdominal hysterectomy — all successful. In these cases Dr. Polk removed the entire uterus. It is claimed that this operation leaves the vagina and bladder in better condition to resist any intra-abdominal pressure than would be the case in hysterectomy through the vagina. However, it would seem to me that this possible advantage would hardly be a compensation for the dangers and difficulties of the operation. This operation, I think, will always be limited to a small class of cases of complete prolapse, for the reason that in many of them it would be very difficult to bring the uterus up into the abdominal wound.

VAGINAL HYSTERECTOMY.

In two cases in which I had previously made Hegar's operation, anterior and posterior colporrhaphy, and in which the prolapse had returned, I made recently vaginal hysterectomy:

CASE I. September 26, 1892, Mrs. B., Dracut, age forty, two children. In December, 1889, Hegar's operation was done, together with an amputation of the elongated cervix. Prolapse returned in less than one year after the operation. September 26th, I removed the uterus and ovaries by the vagina in the same manner that I would make a vaginal extirpation for carcinoma. The two uterine arteries were ligated, and forceps applied to the broad ligaments above.

The operation was a very easy one to do, except in one particular: that was the separation of the bladder from the uterus. Although the cervix had been amputated, it had again become elongated, and had brought the inferior border of the bladder down on a level with the anterior lip. The attachment of the bladder to the uterus was very firm and extensive, and required a most patient dissection to avoid wounding the bladder.

A rapid recovery followed the operation. Examination November 26th showed the bladder pressing somewhat into the vagina, but still no protrusion, and the patient does not in any way suffer the least inconvenience.

CASE II. Mrs. S., Lowell, age forty-eight, five children. A recurrence of procidentia followed Hegar's operation. November 1st, vaginal hysterectomy was done in the same way as in the preceding case. In this instance, too, as before, separation of the uterus and bladder was the difficult part of the operation. The tissues of each were so adherent and blended, that a portion of the uterine structure was left attached to the bladder wall.

I refer to this matter particularly, because I have never encountered any such close attachment of the bladder when the uterus has been removed for cancer. The patient, however, has rapidly recovered, and as is the case after an ordinary vaginal hysterectomy, there is no apparent pressure of the abdominal contents in the vagina.

Krug reports a case of vaginal hysterectomy for prolapse, November, 1891. Result satisfactory.

There is much to be said in favor of vaginal hysterectomy for procidentia. When compared with the three preceding methods of operating, that have been more generally if not exclusively recommended, it has some important advantages:

(1) It is the easiest operation to perform.

(2) It always cures; while Hegar's operation frequently, and ventral fixation, occasionally, fail to do so.

(3) It is attended with very small danger to life — less than is the case in abdominal hysterectomy or in ventral fixation.

(4) It is probable that the after condition of the patient will be more certainly satisfactory than when one of the other operations, except abdominal hysterectomy, is selected.

MALARIA IN CAMBRIDGE AND VICINITY.¹

BY E. H. STEVENS, M.D., OF CAMBRIDGE.

It is a well-known fact that malaria has been spreading out over eastern Massachusetts during the last eight or ten years. For sixteen years previous to 1887 malarial fever was occasionally seen in Cambridge, principally about Fresh Pond. There were cases reported, I think, for fifteen or sixteen years previous to 1887 in the region of Fresh Pond — a very few isolated cases. In 1887 it was a very dry season, and the city of Cambridge improved the opportunity of deepening Fresh Pond over a surface something like sixteen acres, which was known as Cambridge Nook. This was exposed during the summer. They deepened the pond from two to five feet. This was in the early spring of 1887. During the summer of this year cases began to occur about the pond on the east side. The cases reported previous to 1887 were in the region of Cushing Street, on the west side of the pond. There were quite a number of inhabitants living along the border of the Fitchburg Railroad near the pond, and almost every family during that summer had malarial fever. As the season advanced, the disease spread out along Alewife Brook, and appeared at the foot of Spruce Street, which runs down to the marsh, where a large sewer opens. As the inhabitants in this locality began to be affected with malarial fever, the disease appeared among the Canadian Frenchmen working in the various brick-yards, which are numerous in the vicinity of Alewife Brook and the marshes. The disease became so prevalent in several of the yards that it crippled their force of workmen so much that it became a serious matter to the companies. I think, during the season of 1887, the cases I saw or heard of were all confined to the borders of Fresh Pond and along the borders of Alewife Brook, and in Belmont in the brick-yards recently opened. There was a new brick-yard started; and the men were so seriously affected that 40 out of about 240 were obliged to be sent home to Canada, having the chills. From that time the disease has spread out over Cambridge, until now you find it in all parts of the city. I think the larger number of cases are seen still in that part of Cambridge known as North Cambridge, where there are the large marshes starting at Fresh Pond and running along the borders of Belmont and Arlington. The larger number of cases occur in this vicinity, and the most virulent cases seem to be in that locality. It was six years ago that the disease started. The number of acute cases that are seen now in that vicinity are very much less than three or four years ago, as it seems to me, from the fact that the people who live there have become saturated — I do not know how to explain it in any other way. A very large number of the people show the effect of living in a malarial region. They are

¹ Read before the Section for Clinical Medicine, Pathology and Hygiene of the Suffolk District Medical Society, November 16, 1892.