In the 63 cases which I have investigated, flexion of the thigh existed in 6. The cases with flexion of the thigh are generally those which suppurate, but sometimes it occurs without suppuration. The duration of illness before admission in these cases was 83 days, their average stay in hospital 57 days, and their total illness 140 days. Five of them suppurated. The length of time in hospital before the abscess was opened was from 15 to 47 days. Their maximum temperature was from 100.5° to 104.5°, the average being 102.8°. From these figures you will see that flexion of the thigh implies that the illness is severe.

ALBUMINURIA.

The late Dr. Matthews Duncan reported some cases in which, with pelvic cellulitis, there was albuminuria, but nothing to account for it—no casts and no pus. This existed during the cellulitis, and ceased when the cellulitis got better. In 58 cases in this hospital the urine was examined, and out of the suppurating cases in 5 there was albumen, but it was a trace only. Out of 30 non-suppurating cases, there was a trace of albumen in 9. In 1 the urine was not drawn off with a catheter, and the albuminuria may have been due to admixture of menstrual blood.

TREATMENT.

In the treatment of these cases the essential thing is to keep the patient at rest, and to maintain her strength by suitable food, while relieving her pain by narcotics if necessary. This is all that is essential. There is no drug that has been proved to have any influence on the absorption of pelvic cellulitis. You can please the patient, perhaps relieve her pain, and certainly do no harm, by applying fomentations made with sedative drugs to the part. It is possible that the fomentation may hasten the absorption, but we have no evidence of it. When suppuration has taken place, the important thing is to let out the pus as soon as you can. In some cases relief can be given by making an incision, and so relieving the tension even before pus is discovered. But in the inguinal region it is not prudent to do so on account of the nearness of the peritoneum; because if you have to search for pus, you may open the peritoneum, and then, if there is only a small quantity of infective pus, that may find its way into the peritoneum, and set up peritonitis. In other parts than the inguinal region that practice can be carried out more safely, but I speak not in this lecture of such cases. The important thing in the case of suppurating cellulitis is to open the abscess, and let out the pus as soon as possible, and then keep the patient quiet while the abscess is healing. Few effects of surgical treatment are more striking than the rapid improvement in cases of parametritis when the pus has been let out.

Let me repeat that in this lecture it has not been my purpose to describe all the clinical features that parametritis may present, but only those of the common cases, which far outnumber the rare exceptional forms.

TWO CASES OF EXTIRPATION OF THE UTERUS FOR EXCESSIVE HYPERTROPHY AND PROLAPSE.

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The terms "hypertrophy" and "prolapse" are not a complete pathological description of the condition present in the two cases which are here reported, but represent the two most prominent clinical features, for in both there were excessive growth of the uterus and extrusion of the cervix with the anterior vaginal wall, part of the bladder, and the urethra through the vulvar cleft; the posterior vaginal wall was not extruded, the posterior fornix remaining apparently about its normal level. The term "prolapse" should, strictly speaking, be limited to cases of herniation of the entire pelvic floor, where there is unfolding and protrusion of both anterior and posterior vaginal walls, between which the uterus hangs, as it were, in a sac. In these cases the operation of hysterectomy has been tried

and by many found wanting, for the removal of the displaced uterus does not of itself cure the hernia of the remaining portion of the pelvic diaphragm; it has therefore, it seems, been almost abandoned by some operators, at least, in favour of other operations, for example, plastic operations on perineum and vagina, coupled with suspension of the uterus to the anterior abdominal wall or vaginal fixation; on the other hand, some operators have gone so far as to excise not only the uterus, but also the whole or part of the vagina, so as to produce obliteration of the genital canal; such a radical measure, however, can only be suited to a small number of cases. In such a condition, namely, simple prolapsus, I have obtained very satisfactory results by repairing the perineum and stitching the fundus of the uterus to the anterior abdominal wall, one patient so treated having gone through a subsequent pregnancy and normal labour (at full term) without prolapse recurring. On the other hand, one very occasionally meets with a condition of extreme hypertrophy of the uterus without any herniation of the pelvic floor, as in the case of a virgin, aged 20, upon whom I operated about three years ago, and in whom the cervix protruded through the vulvar orifice, whilst the fundus remained at its normal level, and the vaginal fornices and perineum were practically intact. In this case, after ligature of the uterine arteries, the cervix was excised above the level of the vagina, with good result.

The two cases which I now report belong to a class which stands midway between the two classes to which I have just alluded; in both there was great hypertrophy of the uterus itself, especially of the cervical portion; with protrusion of the lower part of the cervix through the vulvar opening, together with the anterior vaginal wall and portion of the bladder and the urethra, the latter apparently having been dragged downwards by the advancing cervix. In both cases the fundus uteri was to be felt behind the symphysis pubis, and in both the posterior vaginal fornix existed, and apparently stood about its normal level. In the one case the sound passed 6½ inches, and the lower part of the cervix was hugely hypertrophied, so much so that when I saw it the cervix could not, on account of its bulk, be replaced within the vulvar aperture, and was much congested and ulcerated. The patient, a multipara, aged 47, said she had herself been unable to "get it back" for about a year. She had had six children, the youngest having been born ten years ago; there was some "prolapse" (probably of the anterior vaginal wall) after the first confinement 29 years ago. Menstruation had been regular every four weeks, but excessive, and for some months there had been urinary trouble.

In the second case the sound passed 5½ inches; the lower portion of the cervix was not so greatly hypertrophied, but a large part of the bladder was outside the vulva. In this case, also, as in the other, the fundus was to be felt behind the symphysis, and the posterior vaginal fornix seemed to be about its normal level. This patient was 52 years of age, and complained of "the womb coming down" since the birth of her last child six years before. The perineum had been repaired four or five years before, and I had myself done a colporrhaphy and perineorrhaphy about three years before, with only slight and temporary benefit.

It was a question in both cases as to whether amputation of the cervix above the vagina would be sufficient, or if hysterectomy would give a better result. The question of whether to open the peritoneal cavity was not practically a matter of choice, for in both cases it would have been impossible to remove even the cervix without so doing, as the posterior peritoneum reached an unusually low level (reaching outside the vulva), so low, indeed, in the first case that the circular vaginal incision around the cervix at once brought peritoneum into view. It was therefore decided to remove the uterus, afterwards carefully closing the peritoneal cavity in the usual way, broad surfaces of peritoneum being brought together by a fine continuous silk suture; at the same time the cut ends of the various uterine ligaments were bunched together by ligatures and fixed in one central knot. By means of buried sutures the large raw area of connective tissue covering the bladder was diminished, and the bladder wall folded upon itself. The cut edge of the anterior vaginal wall was then brought up to the level of the posterior vaginal incision, and a broad raw area on both flaps brought together, the effect of

this being to draw up the bladder well within the vulva; at the same time the top of the vagina was fixed to the peritoneum and to the "central knot" formed by the firm attachment of the cut ends of the uterine ligaments.

At a second operation the perineum was repaired, and the vaginal opening narrowed, the anterior edge of the new perineum being brought well forward so as to support the urethra and lower part of the anterior vaginal wall. The results have been very satisfactory, both patients being able to get about as they wish, with no urinary inconvenience, and without pessaries.

Hysterectomy for prolapse has been objected to by some operators, who have found that the patient continues to suffer from a prolapse of the vaginal walls. As I have said, the mere excision of the uterus cannot be expected to cure the hernia of the rest of the pelvic floor. This object, however, may be obtained by careful attention to the steps of the operation subsequent to the actual excision of the uterus, namely:

1. The drawing together of the peritoneal surfaces and the cut ends of the uterine ligaments.

2. The making of a broad union between the anterior and posterior vaginal walls, and their fixation to the "central knot" formed by the remains of the various uterine ligaments.

If these points are attended to the operation should meet with the desired success.

ON VAGINAL HYSTERECTOMY FOR UTERINE PROLAPSE.*

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It may be assumed that there are cases of prolapse of the uterus so severe and confirmed that hysterectomy alone gives any hope of a good result, even then recurrence sometimes following. Within this field there are three points worthy of consideration:

1. The reason that even hysterectomy fails to cure the prolapse.

2. The anatomical conditions which are the cause of this.

3. An operation specially modified to meet the difficulty.

As far as my experience enables me to judge, I find that vaginal hysterectomy for prolapse is practically the same as that for cancer. The method of operation and the incisions are the same, and the details of the various steps are not modified by the essential difference of the object to be attained. This, in my opinion, is wrong technically; for although when performed on the usual lines it may at times be attended by success, this is chiefly due to the floor of the pelvis having become tightened by the casual corrugation and folding of the vaginal flaps.

In removing the uterus for cancer, our great object is to completely excise the growth and its surrounding parts, without impairing the functional activity of the neighbouring organs. In hysterectomy for prolapse, the object is not so much to get rid of the uterus and those structures which promote prolapse. Although there are many points in common in the two operations, there is one fundamental difference. The one demands that the whole of the uterus be removed, as possibly containing isolated cancer cells; the other admits of voluntarily leaving behind any part of the uterus which, in the opinion of the operator, may assist in preventing the recurrence of prolapse. It is not within my scope to discuss the plastic operations that have been proposed, such as those of Freund and Baldy; they are well known.

The first step in designing an operation for inveterate prolapse is the recognition of the causes of prolapse and the nature of the structures on which the strain falls after the uterine ligaments have relaxed. The burden practically falls on the broad ligaments, which are bound to stretch under the continual application of strain. The uterus has no definite short firm attachment except to the base of the bladder, which is, however, itself so freely movable that the gain is fictitious.

* Abstract of paper read before the Nottingham Medico-Chirurgical Society, March 7th, 1900, at which specimens illustrating the operation were shown.

The object then of an operation is to give a firm rigid attachment which will form a new pelvic floor; but if we cannot do this to remove the uterus and fix the apex of the vagina firmly by a short broad pedicle to a point as near its normal position in the pelvis as possible, so that it will be enabled to bear the strain required.

The loosest attachment is that connecting the neck of the uterus with the posterior vaginal wall, and unless this is specially considered no operation can ensure success. The second consideration is that any modification introduced should admit of easy and quick performance, offer as little risk as possible to the neighbouring structures. Beyond the slight support afforded by the vesical folds, the uterus is rather helped to fall than hindered by its connection with the bladder. The posterior vesical attachments are necessarily very loose, and this allows of the easy descent of the uterus. In fact functional dilatation of the bladder demands that alteration of relative position should be physiologically possible; and if physiologically therefore pathologically also. The posterior attachments of the uterus are equally unstable. The roof of the posterior vaginal fornix forming the floor of Douglas's pouch has no rigidity whatever, so that assuming that the lateral and other attachments of the uterus have been relaxed by pregnancy, there remains but very slight hindrance to stretching of the upper pelvic supports.

Is it possible now to strengthen the pelvic floor by making the summit of the vagina a fixed point that is more certain and solid than a chance adhesion? The entire removal of the uterus is ineffectual unless the cut surface at the base of the bladder happily forms peritoneal adhesions high up instead of to the raw edge formed by the posterior primary incision. The plan I recommend is:

1. The removal of a part only of the uterus.

2. The removal of the unattached portion of the posterior fornix.

In the state of complete prolapse the relationship of the bladder, ureters, and uterus is changed. The fundus of the uterus by its descent carries the posterior half of the bladder and the ureters with it, so that the posterior wall becomes the anterior. In complete prolapse the anterior uterine surface and sides are covered by bladder and ureters. To guard against any accident in operating produced by this abnormal anatomy a sound is passed backwards and downwards into the bladder as it lies exposed in front of the uterus. The continual dexterous manipulation of this by an assistant shows the limits of the bladder. By means of scissors the bladder is dissected off the sides and cervix of the uterus, the incision being in uterine tissue; the points are now turned sharply backward and the uterus cut across at the level of the cervix into Douglas's pouch. Two fingers of the left hand are passed through into the peritoneal cavity, the fundus of the uterus seized, retroverted, drawn down, and amputated at the point of peritoneal reflection on its anterior surface, the broad ligaments having previously been seized with forceps and ligatured.

There is now left attached to the base of the bladder a solid piece of uterine tissue. On the breadth and firmness of union which this is able to make will partly depend the success of the operation by resisting downward pressure in micturition and defæcation; in short, it acts as a buttress in forming a new pelvic floor. The next step is to make a posterior fixed attachment for this stump. We find at this stage that there is left the cervix and os uteri hanging on to a long flap of mucous membrane and peritoneum which is the stretched and useless posterior fornix; this is cut off by a pair of scissors close to the base. To this raw surface at the back of the pelvis the stump of uterine tissue is easily brought in contact after bleeding has been stopped. The parts are retained in position by gauze tampons.

By these means not only is there a broad, firm union of two fixed inelastic tissues, much preferable to a narrow casual adherence of thin, stretched membrane, but it gives a fixed support to the neck of the urinary bladder much preferable to the very thin walls which are left after the operation of vaginal hysterectomy for cancer.

The only part which requires special care is the dissection involved in separating the displaced bladder.

The points for which advantage is claimed are:

1. The leaving behind of a solid piece of uterine tissue,