It is difficult to believe that a jejunostomy high up can have any effect on the paralysed coils in the lower portion of the abdomen. In the three cases I quoted above, when I drained the gut spontaneous recovery of the whole intestines took place within a few hours. At the time of placing the tubes in the intestines nothing but a small amount of flatus and mucus came away. Within a few hours the colotomy tube acted and flatus was passed per rectum.

I still have an open mind on the subject. We only know a few clinical facts about this condition, and it would be foolish to dogmatize; I have, however, a very strong conviction that all my five cases would have recovered without jejunostomy or colotomy. It is quite possible that by opening the jejunum high up and letting out the upward-flowing intestinal contents a patient may be rescued from a fatal toxæmia, while at the same time the lower abdomen is recovering on account of the ventilation and drainage. If, therefore, it should be necessary to open the intestines, I should prefer to do an external jejunostomy, rather than trust to the method suggested by Mr. Handley. In Case III I did this by placing a tiny Paul's tube into the gut, anchoring it with a few stitches to the parietal peritoneum. No spur forms, and there is a chance of a spontaneous closure later on.

I have not had a case of paralytic ileus since 1913, but it is impossible to think that, however careful one may be, this anxious complication will not occur again. I still do not know whether I should open the jejunum or not. I think that others who have had great experience in abdominal surgery should give short accounts of their views and methods. Some years ago an impromptu discussion on this subject was started one evening at the Society of Medicine. A noted American was present, and was asked to give his views on the subject. He candidly said he had no decided views.

I have only dealt with the treatment of paralytic ileus in a practical way. I am quite aware that there are minor clinical forms of post-operative distension which respond to pituitary extract, eserine, enemata, and a whole host of remedies. The condition I am dealing with is what I term "complete paralytic distension," following a clean abdominal operation. I should like to add that I have never seen this grave condition follow an operation such as bilateral pyosalpinx, where a large pelvic drain had been inserted.

THE TREATMENT OF BACKWARD DISPLACEMENTS OF THE UTERUS.

BY

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The Treatment of Fixed Backward Displacements in Nulliparae.

THE fixation of the uterus is produced in the great majority of instances by adhesion of the appendages, although the uterus itself may also be bound down. It follows, therefore, that the position of the uterus is secondary to some infective inflammatory process spreading from the uterus and appendages to the pelvic peritoneum, or spreading from the bowel.

The primary purpose of treatment must therefore be to deal with the effects produced by the pelvic inflammation.

Where there is a history of previous attacks of pelvic peritonitis, with pain and fever, and on examination a fixed mass or fixed masses are found behind the uterus, the presence of pus is suggested, and operation is imperative.

In the more chronic or subacute infections pus may not be present, or, if it be, the amount is small, and for these cases palliative treatment by tampons, douches, counter-irritation, etc., is usually recommended. Here, again, I believe the interest of the patients is best served by an early resort to surgical treatment conducted on conservative lines. Delay means destruction of the value of the Fallopian tube as a channel for the passage of ova or spermatozoa and insidious and destructive changes in the ovaries. To speak of cure by medical treatment is only to fog the vision, for the so-called cure means too often

the destruction of the fertility of the individual, the destruction of the function of the tubes and ovaries. Moreover, if surgical treatment be too long delayed, a secondary infection from the bowel is not uncommon, which may be so severe as to necessitate for its eradication the removal of the greater part of the genital organs. The policy of "Wait and see" should be abandoned, and that of "Look and see" adopted.

Treatment of Backward Displacements in Parous Women.

Backward displacements frequently develop after a confinement or abortion, when, in consequence of the supports being slackened, the enlarged uterus falls backwards. Here, however, the pessary has its most useful application, and, if worn for six months, a cure will result. This being so, it is obvious that preventive treatment is of paramount importance in order to help in reducing the enormous number of women so afflicted.

The best method is to make it a rule that every woman should be examined from four to six weeks after labour in order to determine the state of the uterus and adnexae, the vaginal walls and perineum. If this were done, it would diminish the number of women who are suffering from prolapse and displacements. Treatment could at once be applied to the uterus, the vaginal walls and perineum before marked changes had been produced. Unfortunately, women are anxious to get rid of the doctor as soon after the confinement as possible, and a visit for further investigation might be resented. But, after all, the doctors should be the guide of their patients in this regard and must educate them to appreciate the value of such an investigation. Unless this is done, we shall continue to blunder along in the same old way, doing nothing to prevent what is easily preventable.

It has been recently asserted, but with limited proof, that early rising after childbirth tends to prevent backward displacements. If this be so, it will be a great gain, but at present I am still in favour of rest in bed after labour, but during this period exercises and, later, massage may be usefully employed. Massage is of great benefit when the abdominal muscles are poorly developed, or when the abdominal walls have been over-stretched. A woman who has suffered from a displacement previous to her pregnancy should have a longer period of rest after her confinement.

When a chronic displacement is encountered in a parous woman it is essential to make sure that there is no defect in the perineum or vaginal walls, no chronic metritis, or inflammation of the adnexae. All these must be taken into account before deciding upon the appropriate treatment. No "cases" require greater experience in deciding on what to do and how to do it, and the ability in selecting the correct treatment stamps the master.

It will be found that, apart from those examples following labour or abortion, nearly all the chronic types require some form of surgical treatment. The part or parts of the suspensory mechanism which are at fault have to be determined and suitable remedies applied. There is no one operation or one treatment for this condition; indeed, the surgical judgement of any operator who within a limited period of time can furnish a long list of patients treated by one operation must be viewed with considerable mistrust. One operator, after an experience of nearly 700 cases, came to the conclusion that his method was radically wrong. An honest confession, no doubt, but —

When I tell you that over 100 operations have been devised for the treatment of backward displacements, each of which, according to the originator, is the best, I may be pardoned for dwelling upon this theme. A peculiar type of egotism seems to seize those who originate such operations, for they at once convince themselves that their operation yields the best results and is universally applicable.

My own experience leads me to the conclusion that as all the cases are different, so the treatment must vary according to the extent and character of the pathological changes encountered. At the same time there are certain broad principles which should govern the treatment. Foremost amongst these is the age of the patient. Is she of child-bearing age or has menstruation ceased? If of child-bearing age, the possibility of further pregnancy should be

remembered, and any treatment tending to cause interference therewith should be avoided. If past the climacteric the pregnancy factor is eliminated. Again, surgical treatment should aim at restoring as far as possible the normal anatomical relations and not substituting one deformity for another. Further, the cure should be such that it can withstand the strain of future pregnancies.

To find in a parous woman a backward displacement without any other complication is rare; generally parturition has left its mark on the body or cervix of the uterus, the vaginal walls, and the perineum, or in addition on the appendages, pelvic peritoneum, and cellular tissue. The abdominal walls, too, may have suffered, remaining over-stretched, thin, and atrophic, whilst a general ptosis of the abdominal viscera may be an additional complication.

Let us see, then, what treatment should be adopted during the childbearing period: (1) When the uterus is replaceable, and (2) when it is fixed.

(1) *When the uterus is replaceable.*

(a) The uterus displaced backwards without relaxation of the vaginal walls and the perineum sound. Here a trial may be given to pessary treatment for six to twelve months, and, if it fails, surgical treatment should be advised. Such cases, however, are not common.

(b) The uterus displaced backwards with slight descent, relaxed vaginal walls, and deficient perineum. Here a repair of the vaginal walls and perineum should be done, and as a result the backward displacement will right itself.

(c) Uterus displaced backwards, slight descent. Cervix fissured and thickened, relaxed vaginal walls, and perineal deficiency. In addition to repairing the vaginal walls and perineum the condition of the cervix requires attention, for if it remains enlarged it tends to act as a dilating wedge. Fissures should be repaired, and if necessary a triangular piece excised from the anterior and posterior cervical walls, followed by accurate suture. This operation preserves the continuity of the canal, and is preferable to amputation of the cervix in the parous woman.

(d) Uterus displaced backwards, relaxed vaginal walls, perineal deficiency, abdominal walls thin and atrophic, with visceral ptosis. The vaginal walls and perineum should be repaired, and massage exercises, etc., should be recommended. For the poorer classes an abdominal belt will be found to be of great assistance, whilst for those who can afford them properly fitting corsets should be obtained.

(e) Uterus displaced backwards and enlarged, causing profuse and irregular menstruation, vaginal walls relaxed, perineum deficient. In addition to vaginal and perineal repair the operation of curetting is indicated.

(f) Uterus displaced backwards accompanied by thickening in the cellular tissue laterally and posteriorly. Treatment should here be directed to the improvement of the chronic inflammatory deposits. Rest, counter-irritation, glycerine tampons, etc., should be tried. In the absence of tubal complication such cases are not suitable for an abdominal operation.

(g) Uterus displaced backwards with a greater degree of descent. Vaginal walls not relaxed and perineum sound. An abdominal operation to remedy the uterine displacement and prolapse is indicated. Such cases are also not common.

(h) Uterus displaced backwards with a greater degree of prolapse, relaxation of the vaginal walls, and perineal deficiency. An abdominal operation will be required in addition to the vaginal and perineal repair.

In estimating the amount of descent of the uterus or vaginal walls, examination in the supine position is unsatisfactory unless the woman is instructed to bear down, which will give a better idea of what the conditions are when she is standing erect.

(2) *When the uterus is fixed.*

When the uterus is displaced backwards and fixed, the displacement is most frequently the result of a localized peritonitis infective in character. In nulliparae gonococcal infection is the most common cause, whilst in parous women there may be, in addition, infection from other organisms following abortion or full-time labour. Gonococcal infection leads to an adhesive peritonitis, which tends to persist. The effects produced are seen to be most marked in and around the appendages, and thus

it comes to pass that partial mobility of the uterus is not infrequent, although it cannot be replaced in its normal position.

The best treatment for partially mobile and for fixed uteri is to open the abdomen and deal with the complications which are found. It is advised that forcible replacement should be practised with or without the aid of anaesthesia. This brutal method should be definitely abandoned, for who can tell how much internal damage has been done? Through an abdominal incision the diseased parts can be inspected, and by the employment of conservative surgery the function of the appendages may be completely restored. The time element is of supreme importance, for the more chronic the disease the more likely is it to be attended with destructive effects.

Abdominal and Vaginal Operations for Backward Displacement.

Abdominal Operations.—For maintaining the uterus in a forward position a variety of procedures may be adopted. The uterus may be stitched to the abdominal wall or the round ligaments folded within the abdomen, or sutured to the abdominal wall, or drawn into the wall, or drawn backwards through a hole in the broad ligaments, or folded back over the uterine cornua. The broad ligaments also may be folded in front of the uterus or behind the uterus. Different methods may be usefully employed according to the necessities of the situation; much use, however, can be made of the round ligaments to cover pedicles and to keep the uterus forwards where it has been necessary to remove some portion of the appendages. It is necessary to maintain the uterus in an anterior position after separating adhesions, etc., for, unless this is done, it will fall back again and the old symptoms will return.

It has often been asserted that these operations should be concluded by fixing the uterus to the abdominal wall. Such statements can only be made by those who have had little experience, for in the presence of inflammatory exudation it is often impossible to fix the uterus to the abdominal wall, and if it is done the fixation will either soon stretch and give way or cause great suffering from the tension. It is here that the different methods of folding the round ligaments find a useful application.

For uncomplicated displacements with little or no descent, what is known as the "sling operation," that is, pulling the round ligaments backwards through a hole in the broad ligament under the utero-ovarian ligament, and fixing them to one another and to the back of the uterus, was employed. This operation should not be done in the presence of varicose veins in the broad ligament, for a number of instances of iliac thrombosis have been recorded following this operation. Moreover, it does not produce sufficient elevation of the uterus should there be descent. In appropriate cases, however, I have found it a satisfactory procedure.

Another method I have employed for several years is fixation of the round ligaments to the lower part of the abdominal wall just above the bladder by means of buried silkworm gut sutures.

Technique.—This operation is done either by a transverse or a vertical incision.

In order that the transverse incision may be completely hidden by the vulvar hairs, I have employed the following modification. The skin is stretched in an upward direction by means of three pairs of Kocher forceps—one median and two lateral—applied to the transverse line on the skin of the abdominal wall, which is usually found about one inch above the symphysis pubis. The transverse incision is then made midway between the points of the forceps and the symphysis pubis, so that when the incision is sutured it lies across the mons veneris and becomes completely hidden by the growth of hair. The transverse incision need only extend as far as the position of the superficial epigastric vessels, which need not be divided. After division of the skin and fat they are further separated from the aponeurosis in an upward direction until sufficient space is obtained to divide the aponeurosis in the middle line. The muscles are next separated (not cut), and the peritoneum exposed and opened. The uterus and appendages are examined, and if the latter are normal the round ligament of one side is seized close to its uterine attachment with a pair of long Kocher forceps. A curved needle armed with silkworm gut is then passed through the aponeurosis muscle and peritoneum, then under the round ligament close to the uterus and back again through peritoneum, muscle, and aponeurosis. The needle is passed about 1 in. from the incision at its lower part close to the top of the bladder, which can be both seen and felt,

and is a much better guide than any definite measurement by inches from the symphysis pubis, which seems customary in describing similar operations. The round ligament of the opposite side is treated in like manner, and when the silk-worm gut is held taut on either side the uterus is suspended and anteverted. The peritoneum, muscles, and aponeurosis are united in the middle line, and then the silk-worm gut is tied on each side. The tying must not be too tight and the threads must be so cut that they do not cause subsequent pricking. If thought desirable, two or three catgut sutures uniting the round ligaments to the peritoneum may be inserted on either side to reinforce the silk-worm gut.

This operation is simple, safe, and satisfactory. It leaves the uterus in good position, so that on examining some time after the operation it is difficult to tell what had been done. It does not interfere with subsequent pregnancy or labour, and it is an operation I frequently employ in the treatment of sterility. One of my patients operated on after four years of sterile married life has had two children born at the full time without difficulty, and her doctor informs me that her uterus is still in good position.

The possibility of intestinal obstruction from intestine being constricted under the attached ligaments might be urged against this operation. I am not aware that it has ever happened to any of my patients, and I should imagine that it is highly improbable that it ever will if the operation be done in the manner suggested. I believe the dangers from obstruction are exaggerated, and when it does occur it is in all probability due to faulty technique.

Still striving after perfection, I tried another method.

A transverse incision is also used, and at its outer extremity I made a small incision into the aponeurosis then separating the muscle fibres; a pair of Kocher forceps is used to push inwards the peritoneum. The latter is then snipped with scissors and the forceps pushed on through the hole and made to seize the round ligament towards its outer extremity. A loop of the ligament is then pulled through the track of the forceps and fixed by sutures on to the anterior surface of the aponeurosis. The loop may be pushed under the aponeurosis, a pair of forceps being used to separate the latter from the muscle, a catgut stitch closing the aperture. The slit in the aponeurosis should not be too small lest the ligament be constricted, and for the same reason the sutures require to be carefully applied. The ligament is best fixed by three sutures—one at each side fixes it at the opening and also unites the aponeurosis, and one at the extremity of the loop.

The same procedure is then done on the other side, and the median and transverse incisions closed. Before closing the incision accurate haemostasis should be obtained. Three silk-worm gut sutures are passed, one mesial and two lateral; these should take a grip of the aponeurosis as well as the fat and skin. A buried suture of catgut is inserted to approximate the fat and aponeurosis and destroy dead spaces. The silk-worm gut sutures are then tied over small pieces of indiarubber tubing after the skin edges have been approximated by Michel clips.

This operation leaves the uterus movable with no band or bands inside the abdomen around which the wandering intestine may inadvertently slip, and it does not interfere with subsequent pregnancy or labour.

I have employed this method for some years but have not put it on record until I was able to apply the best test of all—namely, the time test. I do not intend to fight the question of priority, but the method was original as far as I was concerned. I always thought that burrowing between the layers of the abdominal wall—a principle employed by so many operators—was not an ideal method.

An objection which may be lodged against this operation is that the cervix may be tilted slightly forwards, but this could be remedied by shortening the utero-sacral ligaments, although I have not yet adopted this additional modification. Both these methods of round ligament fixation will be found suitable, and should be selected according to the indications present.

The Alexander-Adams operation of shortening the round ligament by opening the inguinal canal need only be mentioned, as it was a step towards the production of improved methods. It has the great disadvantage that the condition of the appendages cannot be inspected. It is impossible to tell by examination if the appendages are normal, however great the ability of the examiner may be. The great frequency of adnexal complications is one of the important lessons I have learnt from my operative work, and not the least in importance is the fact that although the uterus may be movable and replaceable in a position of anteversion, the tubal extremities may be sealed from the result of old inflammation, thus rendering the woman sterile. The old "fear of the peritoneal cavity" having

departed, there is no further need for extraperitoneal operations.

Vaginal Operations.

Vaginal Fixation.—In 1902¹ I described a method of vaginal fixation which I had carried out successfully in a series of cases, the details of the technique being somewhat different from those originally suggested. Briefly, the fixation did not extend above the lower part of the uterine body, thus permitting the uterus to enlarge during pregnancy. This operation does not interfere with the subsequent course of pregnancy or labour, and is quite different from the complete vaginal fixation of the uterus, which from its very inception must have been condemned by any one possessing surgical nous.

I still believe vaginal fixation performed in the manner suggested to be a good operation, and as an adjunct to other vaginal operations it may be usefully employed. The indications for its use are, however, definitely limited, and it is not applicable where there is much descent complicating a backward displacement, or when the uterus is fixed. Vaginal fixation of the round ligaments is another operation which is being employed, but of this I have no experience. It is obviously unsuitable where there is uterine descent.

The disadvantage of these operations is that they do not afford an opportunity of inspecting the pelvic contents and of dealing with any complications which are present.

Backward Displacements after the Menopause.

If the uterus be small and atrophic no treatment is necessary, for it will be found that under these circumstances the displacement does not cause any trouble. If the uterus be still large, and the other indications point to the necessity for an abdominal operation, a thorough fixation of the uterus can be done, for here the question of future pregnancy does not arise. Otherwise the same rules should guide the treatment as are applicable to women in the childbearing period.

Backward Displacements in Association with Uterine and Ovarian Tumours.

A backward displacement of the uterus may result from the presence of a pelvic tumour pushing the uterus backwards.

When the tumour is removed the uterus may still fall backwards, and here one of the methods of plicating the round ligament will be found of service, or the round ligament of the corresponding side may be used to cover the pedicle (if an ovarian tumour has been removed), and at the same time help to keep the uterus forwards.

A small fibroid embedded in the posterior or anterior uterine wall may easily be mistaken for an enlarged retroverted uterus. Such fibroids should be enucleated and the resulting cavity closed by suture. If desirable this operation should be followed by another on the round ligaments. Twelve months after myomectomy and uterine suspension by the round ligaments one of my patients gave birth to a healthy full-time child without difficulty.

Backward Displacement of the Gravid Uterus.

When the gravid uterus is displaced backwards it may right itself, and even if accompanied by retention of urine, rest in bed and the regular use of the catheter, to make sure the bladder is emptied, will frequently effect a cure. As all methods of replacement are apt to be followed by abortion, the greatest gentleness must be exercised should it become necessary to replace the uterus.

The uterus may, however, be fixed backwards by adhesions, and here it may be necessary to open the abdomen and free the adhesions. I have done this operation on two occasions. One patient went to term and was successfully delivered, the other aborted four weeks after the operation.

If, however, fixed backward displacements are treated on the lines already indicated the occasion for this operation will not arise.

In conclusion, although I feel that the subject has not yet been settled, I trust I have said enough to urge the importance of a broader outlook in the treatment of backward displacement of the uterus.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, 1902, vol. i, p. 1204.