A Clinical Lecture

ON

THE PRECISE RELATIONSHIP OF CYSTOCELE, PROLAPSE AND RECTOCELE,

AND THE OPERATIONS FOR THEIR RELIEF.

DELIVERED IN THE POST-GRADUATE COURSE AT THE
MANCHESTER ROYAL INFIRMARY.

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THERE is a tendency to use the words *prolapse*, *cystocele*, and *rectocele* rather loosely and without due respect for the writings of the classical gynaecologists. But "falling of the womb" is so common and causes so much suffering which can be remedied that clear ideas on the subject are most desirable. The treatment, if it is to be successful, must be suited to the needs of each case, and this can only be done after nice determination of the lesions present. Plastic operations on the vaginal walls and perineum were done on 66 patients out of 264 who were treated in the gynaecological wards of the Manchester Royal Infirmary during the year 1911, and this proportion of one in four was almost the same in previous years. At St. Mary's Hospital 238 patients had vaginal operations for the conditions under consideration during 1911, the total number of patients for the year being 1,137. These figures clearly show the importance of work of this kind.

CYSTOCELE.

In cystocele the base of the bladder, the urethra, and the anterior wall of the vagina bulge through the vaginal orifice and form a rounded swelling of which the patient is unpleasantly conscious. The vaginal orifice is always wide, either because the perineum has been torn or because the cystocele has pressed upon and stretched it. In cases of pure cystocele the uterus remains anteverted and near its ordinary level in the pelvis, even when the patient bears down. The pathological condition which renders cystocele possible is relaxation of the connective tissue which intervenes between the bladder and vagina and the upper surface of the pelvic diaphragm, the tissues which support the uterus remaining uninjured.

PROLAPSE.

In cases of classical *prolapsus uteri*, cystocele is invariably present; but, in addition to this, the uterus is retroverted, and, when the patient bears down, it descends in the pelvic axis, together with the bladder and anterior vaginal wall. This can be observed in any case of early prolapse, for, on inspection of the external genitals, the egg-like cystocele appears as soon as the patient strains. If the tip of a finger be placed behind the cervix, and the patient is then requested to strain, the uterus is felt to become retroverted (if it is not so already), and to move downwards as she bears down, the cervix approaching the vaginal outlet. In an advanced case the cervix emerges, followed by the posterior vaginal wall; but the anterior vaginal wall (cystocele) always comes first, the cervix next, and the posterior vaginal wall last. The pathological condition which allows prolapse to occur is relaxation of the connective tissue which intervenes between the uterus and the upper surface of the pelvic diaphragm, together with relaxation of the connective tissue which holds in position the bladder and vagina. If the connective tissue round the bladder and vagina remains normal, relaxation of the uterine supporting tissue allows only retroversion to occur—not prolapse, for this demands looseness of vagina and bladder as well as of the uterus. To put this in another way, every case of classical prolapse is characterized by both cystocele and retroversion. Cystocele is one thing, retroversion is another. Either may occur alone, but if the two occur together they constitute classical prolapse.

Attention must be called to hypertrophy of the cervix as a complication of the conditions under consideration. In a simple case of hypertrophy of the vaginal cervix without cystocele or prolapse, the diagnosis is easy and the treat-

ment simple—namely, free amputation of the cervix. A loose and elongated uterus often becomes retroverted, descends in the pelvic axis, and inverts the upper part of the vagina. This condition, also, is easily distinguished from classical prolapse by the persistence of the anterior fornix—in other words, by the absence of cystocele. But, when overgrowth of the cervix complicates one of the other conditions, it is not always easy to recognize the true nature of the case. Needless to say, if the cervix requires amputation, this should be done before and in addition to the operations described below, the uterus being curetted as a preliminary.

RECTOCELE.

Rectocele is an entirely distinct and separate condition, in which the anterior rectal wall bulges through the vaginal orifice covered by the posterior vaginal wall. It may occur by itself; together with cystocele (but without prolapse), and together with classical prolapse. It is recognized clinically by passing a finger through the anal canal and observing that its tip emerges at the vaginal outlet covered by rectal wall and vaginal wall. The pathology of rectocele is very interesting. The condition never occurs unless the perineum has been torn. In every case the anterior rectal wall is more or less abnormally adherent to the posterior vaginal wall. In other words, the recto-vaginal septum in rectocele is two layers of tissue united together and moving as one, while normally the recto-vaginal septum is two layers united by very loose connective tissue and sliding very freely and easily upon one another. The unduly firm union of the anterior rectal and the posterior vaginal walls in rectocele is caused by the remains of old inflammatory action. There is scar tissue instead of loose connective tissue between the layers of the recto-vaginal septum. The sequence of events is perineal tear at a confinement, infection of the torn surfaces, and then cellulitis in the adjacent connective tissue between the rectal and vaginal walls. The torn perineum heals by granulation, the cellulitis subsides and leaves the anterior rectal wall firmly adherent to the posterior vaginal wall. When this has occurred, constipation and straining at stool produce rectocele. When the recto-vaginal septum is not thus altered by old inflammation, constipation and straining do not produce rectocele. This is simply stated as the result of observation, and, like other rules, it may have its exceptions, but the writer has not seen one.

TREATMENT.

In order that the operative treatment of these conditions may be successful certain general rules must be observed. During the four or five months after a confinement the parts bleed freely, and are too soft to hold stitches well. Operations should be postponed until the tissues are firm and free from *post-partum* hyperaemia. During the period of waiting the use of pessaries is allowable. If the vagina is in a septic condition, or is ulcerated, a healthy state should be secured before operation by the use of mild antiseptic douches, light vaginal packing, and, if necessary, by rest in bed. The date of operation should be chosen so that menstruation will not occur until healing is fairly well advanced. For the menstrual discharge dilutes the lactic acid containing vaginal secretion, and so favours septic infection. Douching the vagina after plastic operations should be avoided, as a rule, for the same reason, and also because it irritates the tissues. But if, after an operation, the vagina is found to be infected, mild antiseptic douches should be used.

It is not necessary to use silkworm gut or silk sutures within the vagina, and, if these are used, their removal is both troublesome to the surgeon and painful to the patient. Catgut answers every purpose. If fairly thick, plain catgut, sterilized with iodine or otherwise, lasts long enough. If thin, the catgut should be chromicized or hardened with formalin. Silkworm gut may be used for stitches tied on the perineal surface.

The first measure in operating for cystocele is anterior colporrhaphy. Any incision will do, but the anterior vaginal wall must be cut through. It is not sufficient to strip off the vaginal mucous membrane; the whole thickness of the vaginal wall must be freely separated from the bladder wall. The unnecessary portion of the vaginal wall is then clipped away, and the incision is closed from side to side, so as to leave the line of suture running from near the urethral aperture to the

junction of the vagina with the cervix. Some surgeons close the incision transversely, and leave the line of suture running across the vaginal wall. But this pulls down the cervix into a position not far above the urethral orifice, and so shortens the anterior vaginal wall. This pulls down and retroverts the uterus, and leaves it lying in the axis of the pelvis started on a career of prolapse. This is the way to make sure of recurrence of the trouble. After the operation, the anterior vaginal wall should be long, and the cervix should be far back, near the hollow of the sacrum, the fundus being well forward.

When the bladder and vagina have once been loose surgery cannot make them as firm as they should be. Therefore, after the anterior colporrhaphy has been done, the perineum should be carefully repaired. For a loose bladder and vagina will descend more easily through a wide vaginal outlet than through a narrow one. Any good method of doing perineorrhaphy may be used; but the lower part of the vagina should be narrowed to admit only one finger, and a bulky perineal body should be built up.

The operations for classical prolapse are the same as those for cystocele, with the exception that the anterior colporrhaphy should be more extensive. For the uterus is loose as well as the bladder and vagina, and it is always retroverted and low down in the pelvis. The operation must be done in such a way as to carry the cervix backward into the hollow of the sacrum, and so maintain the uterus in a position of anteversion. If this can be secured the operation succeeds, and there is no recurrence. It is to be managed by bringing together, in front of the cervix, the tissues which before operation lay at the sides of the cervix. In other words the colporrhaphy wound must be broad at the upper or cervical part, the anterior fornix being, so to speak, excised. The easiest way to do this is to pick up two points, about 3 in. apart, one on either side of the cervix; put the tissues on the stretch, and cut between the points picked up right across the anterior fornix in front of the cervix. The vaginal wall is then separated from the bladder and urethra and a triangular portion of it is cut away. After the wound has been closed from side to side the cervix will be high up and far back, and the uterus will be found to be anteverted.

A loose uterus will come down a wide, straight vagina more easily than it will descend a narrow and curved passage. The perineum should, therefore, be carefully repaired as before. In operating for cystocele and prolapse it is not necessary to narrow the upper portion of the posterior vaginal wall. Indeed, by doing so, the cervix, thrown back by the anterior colporrhaphy, is pushed forward again by posterior colporrhaphy. This favours retroversion and recurrence, for the uterus does not prolapse if it remains anteverted.

In rectocele, however, the posterior wall is stretched, thinned, and adherent to the anterior wall of the rectum. To cure the condition the vaginal wall must be separated from the rectal wall, and its redundant portion must be excised. The perineum must also be repaired. Thus rectocele demands posterior colporrhaphy and perineorrhaphy, or colpo-perineorrhaphy, as the combined operation may be termed. This is best done as described by Donald. Beginning about an inch below the cervix, the posterior vaginal wall is incised by a Λ -shaped cut, and a triangle of it is dissected downwards. This part of the wound is stitched from side to side, and the lateral incisions are continued downwards and outwards for another stage. More of the vaginal wall is next separated from the rectum, and the second stage of the wound is sutured. A third stage frees the posterior vaginal wall down to the margin of the perineum, where it is cut away. The perineal body is then formed with buried catgut stitches, and the surface of the perineum is closed with silkworm gut.

It may be asked whether these operations give a satisfactory permanent result in cases of complete prolapse. The reply is that in some cases they have stood the strain of subsequent pregnancy and parturition. In other cases the operations for prolapse have had to be repeated after subsequent parturition. Apart from this extreme test, the results are uniformly good. It must be admitted, however, that these plastic vaginal operations are difficult, and that they seem to demand more judgement and experience than any other gynaecological

work. This is illustrated by the personal experience of the writer, who used to find it necessary to supplement vaginal operations by ventrifixation in certain cases of prolapse. These became fewer and fewer as the upper part of the anterior colporrhaphy wound was made wider and wider; and during the last five or six years the writer has not done a single ventrifixation for prolapse.

A CLINICAL LECTURE ON GASTRO-ENTEROSTOMY.

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DURING the last three months several cases of gastro-enterostomy have been operated on. The operation is performed for:

1. Dilated stomachs, due to chronic dyspepsia.
2. Stenosis of the pylorus, due to ulceration and contraction.
3. Ulceration of the stomach with haemorrhage.
4. In cases of ruptured gastric ulcer at the pylorus.
5. In cases where an ulcer has been cut out, the operation is of great value.
6. In hour-glass contraction of the stomach, due to an ulcer contracting in the middle of the stomach. In such cases a double gastro-enterostomy is necessary, or a gastro-gastrostomy.
7. Atonic conditions of the stomach in which all medical treatment seems to be of no avail. Of these cases I shall have something more to say later.
8. Duodenal ulcer with haemorrhage.
9. Malignant disease of the pylorus and stomach, either with or without gastrectomy.

All the cases operated on have been submitted to the ordinary tests:

1. Examination of the abdomen, which frequently shows more or less splashing, suggestive of dilatation of the stomach, which is confirmed by blowing it up.
2. Examination by means of a test breakfast, which consists of tea with milk and bread-and-butter. The stomach being gently relieved of this two hours after the patient has partaken of it, and the stomach contents examined chemically, you may find excessive acidity and fermentation, which frequently occurs in dilated stomachs; or an absence of acid may be found, showing itself in cases of malignancy. These cases are frequently accompanied by a sulphuretted hydrogen odour.
3. To determine pyloric stenosis the raisin test is a very good one. Two tablespoonfuls of raisins are mixed with bread and milk, and five hours after the patient has partaken of this the stomach is washed out. If the raisins are returned you may be quite certain that you have either got a stenosed pylorus or a dilated stomach with great lack of power to deal with, or the stomach is so feeble in nerve tone that it is unable to empty its contents.

The operation we generally perform here is the posterior gastro-enterostomy recommended by Professor Mayo Robson, which has given us excellent results. The patients are kept in the Fowler position for a fortnight; this is mechanically more satisfactory than any other and tends to diminish sickness after chloroform or ether. During the last three years we have invariably closed the pylorus, where necessary, by a purse-string suture, and there has been no trouble with recurrent bilious vomiting. Feeding is commenced eight hours after operation, and is gradually increased from day to day.

It is essential to keep in mind that the stomachs we are dealing with are weakened by disease, and therefore all foods should be carefully prepared, being given in moderate quantity until the digestion is stronger. Lactate of pepsine and sodium bicarbonate, equal parts after food, I have used with great benefit for four years.

Results.

Looking over the last 81 cases which we have done, 13 were for ruptured gastric ulcer. One of these died; the other 12 have been quite successful. The operation was done in 60 cases for pyloric stenosis, gastric ulcers with haemorrhage, and duodenal ulcers with haemorrhage. Out of the 60, 2 died; 1 from pneumonia, the other from exhaustion.

Cases of partial obstruction of the pylorus frequently