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

suffer from attacks of complete obstruction with vomiting and during the interval the patient feels quite well. You must therefore keep in mind that the raisin test to which I have referred does not give information regarding partial stenosis of the pylorus unless used during an attack, but the fact that you have recurrent attacks ought to make you recommend a gastro-enterostomy. Keep in mind that tetany or a slight epileptic attack occurs in some cases, and in these an operation is essential.

In the 8 remaining cases, 3 were for malignant disease, 2 partial gastrectomies with gastro-enterostomy, the third a simple gastro-enterostomy. One of the gastrectomies, done three years ago, is still quite well; the other one died at the end of four months from secondary growths all over the inside of the abdomen, with ascites; the third case lived for six months.

The atonic cases, 4 in number, were the most disappointing. Perseverance in careful dieting and other treatment generally, however, gives a satisfactory result.

The only case unaccounted for in our last list of 81 is of great interest. Ten years ago I operated for a ruptured gastric ulcer in the body of the stomach, from which the patient recovered. She was sent back to hospital with severe haemorrhage, from which I feared she would die, but, aided by adrenalin and normal horse serum, she recovered sufficiently to enable me to perform a gastro-gastrostomy. I could not in this case do a double gastro-enterostomy. She continues to be quite well, eighteen months after the operation.

You will thus see that the percentage of deaths is not large, being 5 per cent. in the 81 cases.

Looking at all the facts now before us I feel satisfied that you may recommend gastro-enterostomy as a safe and satisfactory operation. I think there is a tendency to persevere too long with medical treatment, and you would do well to recommend earlier operation, more especially in cases of malignancy.

RETROVERSION OF THE UTERUS TREATED BY GILLIAM'S ROUND LIGAMENT VENTRISUSPENSION.

WITH AN ANALYSIS OF 100 CONSECUTIVE CASES.*

BY

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For many reasons pessary treatment of retroversion of the uterus is undesirable, and, unless it is likely to be curative, as in cases discovered shortly after labour or abortion, or when there is a probability that pregnancy may take place and result in a permanent cure of the condition, operative measures are more satisfactory if they can be safely undertaken. That treatment is necessary in cases complicated by disease of the appendages, adhesions, or tumours of the uterus there is little doubt. There is, however, some diversity of opinion as to the necessity for treatment in simple cases, especially those occurring in young unmarried women.

It is frequently stated that retroversion not uncommonly exists as a congenital condition without giving rise to symptoms, and that when such are present they are due either to the neurosis of the patient or to some other local condition. To a certain extent this may be true, but I am inclined to think that such cases are rather infrequent and that retroversion in the majority of instances will in time cause symptoms. I formed this opinion when assistant in the out-patient department of the New Hospital for Women, where the cases were not uniformly gynaecological or specially selected, and further experience has certainly confirmed it. The constant association of retroversion with chronic leucorrhoea and enlarged painful ovaries, so often found in neglected cases, cannot always be pure coincidence, any more than the rapid recovery from obscure attacks of flatulence and vomiting after the reposition of a retroverted uterus in women who have been regarded for years as the victims of neurosis.

The routine examination of young women engaged in

factory labour entailing a good deal of standing and lifting shows that the presence of a simple retroversion is often a severe handicap, dysmenorrhoea periodically disabling the patient and destroying all chance of permanent employment. In such cases I have tried a preliminary dilatation and curetting with no effect, until the displacement has also been corrected.

E. C., aged 25, single, a factory hand, was sent into the Stanley Hospital in March, 1909. Menstruation, normal at the start, had become increasingly painful and was accompanied by clots. Backache, leucorrhoea, and constipation supervened. The patient was frequently obliged to ask for leave of absence, and loss of employment threatened. Dilatation and curetting gave no relief. The uterus was therefore suspended by the round ligaments. The patient shortly afterwards resumed work, and has since been in constant employment. In July, 1911, she said her health was excellent.

In young subjects simple retroversion seems often to cause marked hypertrophy of the endometrium, with profuse menorrhagia.

Miss C., aged 23, from the onset of menstruation had suffered from severe menorrhagia and leucorrhoea. Treatment directed to her general health from the age of 14 had made no difference. After curetting in 1909 there was slight improvement, but menorrhagia soon returned worse than before. A year later, after a second curetting, when masses of polypoid endometrium were removed, the uterus was suspended. The patient is now strong and well and able to lead an active open-air life.

In neglected cases, where chronic inflammatory trouble has extended to the adnexa, there is already a well-marked history of pelvic pain, and one or both ovaries will be found prolapsed, enlarged, and cystic.

Miss H., aged 28, had suffered from gradually increasing pelvic pain, leucorrhoea, and menorrhagia. The retroverted uterus was congested, and the prolapsed left ovary contained several large cysts. Dilatation and curetting, followed by ventrisuspension and removal of the affected ovary, resulted in complete recovery.

Where congenital cases are left untreated there is no guarantee that the uterus will right itself should pregnancy take place, though this sometimes occurs. In others abortion takes place, though it is clear from the frequent association of retroversion with sterility in married women that the one is the cause of the other, while pregnancy frequently occurs shortly after reposition.

Among the many varieties of operative measures devised for the treatment of this condition, none in case, safety, and good after-results can compare with the round ligament ventrisuspension method of Gilliam, which I was fortunate in seeing performed by Dr. Howard Kelly for the first time in this country in the summer of 1905. While the round ligament is advantageously utilized as in Alexander's method, the operation is of wider application, and is not followed by the tendency to relapse of a Kelly's ventrisuspension, nor the dangers of a ventral fixation. With the object of ascertaining if there were any unsuspected evil effects either immediate or remote, I have investigated the after-results and analysed 100 consecutive cases in which I have myself performed a modified Gilliam's operation, in all of which retroversion, either alone or accompanied by some other pelvic lesion, was present.

GILLIAM'S OPERATION.

A small median subumbilical incision permitting investigation and treatment of the adnexa is made, and the round ligaments identified. A sharp Spencer Wells forceps thrust through the sheath of the rectus muscle and peritoneum grasps the round ligament about 1½ in. from the uterus, and withdraws a loop, which is sutured by catgut to the sheath of the rectus. I have latterly adopted the modification introduced by Mayo, of drawing the round ligament through an aperture in the peritoneum close to the internal ring. In this way no slit-like artificial aperture is left in the peritoneal cavity. I have not done a sufficient number of cases to determine whether this modification presents any disadvantages.

I do not sew the round ligaments together, and I make the bilateral aperture in the peritoneum as small as possible, so that it is filled by the doubled round ligament, and the possibility of hernia avoided.

Gilliam's operation is practically extraperitoneal, and almost as safe as the Alexander operation. No sutures are left either in the peritoneal cavity or in the uterus. Should suppuration occur, either from deficient asepsis or necrosis

* Read before the North of England Obstetrical and Gynaecological Society.