SURGICAL PROCEDURES IN GENERAL PRACTICE

This is one of a series of articles contributed by invitation

RECTAL PROLAPSE

BY

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By a prolapse of the rectum we mean an eversion of the bowel through the anal orifice as opposed to the protrusion of a polypus or other form of pedunculated tumour. A prolapse may take a number of different forms, and it is most important, if the condition is to be treated successfully, to be able to distinguish one from the other.

Prolapsed Internal Piles

The commonest condition is prolapsed internal piles. This is not a true prolapse, since only mucous membrane and not all the coats of the bowel is involved. The mass that is protruded may, however, be quite large and can easily be mistaken for a real prolapse. It will, however, be seen on examining the mass carefully that it consists of three, possibly four, main masses and is not completely tubular; also that there is much swelling and oedema of the skin at the anal margin, which indeed may account for the greater part of the swelling.

As a rule the prolapsed tissue is readily reduced, but it may happen that it has become strangulated, and by the time the doctor is consulted has been down for a long while and become badly swollen. An attempt should be made to reduce the mass; but this is very likely to be a failure, and in that event should not be persisted with. The central parts should be pressed up first, small flakes of wool being used to obtain a hold on the slippery mucous membrane. The difficulty as a rule is that as each portion is reduced it promptly comes out again. But if the central piles are pushed up together and held in place with the finger while the outlying mass is gently squeezed towards the centre, the whole mass will often reduce, leaving only the swollen and oedematous skin outside. A compress of lead and opium lotion should now be applied over the anus, together with a tight bandage. The prolapse will, of course, recur, and the patient should be advised to have the piles removed by operation as soon as possible; such cases are not suitable for treatment by injection.

If the mass proves to be irreducible, or refuses to stay up when reduced, the best treatment is to remove the piles by operation as soon as this can be arranged. The patient will thus be cured of his piles and be saved much pain and considerable time. When this is not possible, or the patient refuses to undergo an operation, the best treatment is to keep the patient in bed and apply lead and opium cold compresses (lotio plumbi cum opio diluted with water one-half) to the parts every four hours, and to give some sedative such as opium by mouth, or a half-grain opium suppository per rectum, to relieve the pain. Ice-bags should not be used, as they tend to produce gangrene of the inflamed and congested tissues. If there are already signs of gangrene in the prolapsed mass of haemorrhoids when the case is first seen it is better not to make any attempts at reduction. The swelling will slowly subside in the course of ten days or a fortnight, depending of course on the amount of strangulated tissue. Subsequent operation for the piles will almost certainly be necessary, and much time is saved by immediate operation.

Irreducible Prolapse

It sometimes happens that the doctor is required to deal with a true prolapse which the patient has been unable to reduce. In such circumstances the prolapsed mass is generally a large one, some five inches or more in length, and there is a history of the bowel coming down on many previous occasions. It is also probable that the condition has existed for some hours and the tissues are blue and inflamed, partly from strangulation by the sphincter muscles and partly from the patient's ineffectual attempts at reduction. It is most important that the mass should be reduced as soon as possible or it may become really irreducible and possibly gangrenous. There is a definite technique in dealing with such a prolapse, and if this is carefully followed most prolapses will reduce unless serious secondary changes have already set in.

The chief factor which prevents reduction is that the two inner peritoneal coats of the prolapse get stuck together with lymph: if these can be loosened so that they slide on each other again, reduction is easy. The first step is to put a wet cloth or towel round the prolapsing mass and gently squeeze it between the hands so as to drive out some of the oedema. Gentle pressure should be kept up for some time, with the patient lying on his left side in bed with the knees drawn up. The prolapsed part should next be gently kneaded with the hands to try to loosen the inner coats, and an attempt should then be made at reduction, using cigarette papers or small flakes of cotton-wool. The mass should be held between the fingers of both hands and the thumbs be used to try to return the apex of the prolapse (see Fig. 1). The

FIG. 1.

FIG. 1.—Diagram of the condition in prolapse. A and B indicate the points at which attempts to reduce the prolapse should start.

FIG. 2.

FIG. 2.—The vertical lines show where the linear cauterization should be effected.

cigarette papers or wool should be placed under the thumbs to afford a grip on the slippery mucous membrane. If reduction does not result the whole mass should be again gently kneaded to loosen the inner coats and another attempt made. As a rule after a little patience it begins to reduce, and by working from the apex backwards the whole mass can be returned through the anus. Needless to say, no force must be used that might tear or damage the mucous membrane, and only gentle pressure should be exerted; reduction should always be started from the apex of the prolapsed bowel—that is, the last

part to come down. When the mass has been returned a large-bore rubber tube about six to eight inches long should be passed into the rectum and secured outside with a safety-pin and bandage. This will prevent an immediate recurrence of the prolapse.

Should reduction prove impossible or gangrene be starting arrangements must be made for amputation of the prolapsed mass, as reduction might result in a fatal peritonitis. This is not an operation that should be lightly undertaken, since it involves extensive opening of the peritoneal cavity and considerable haemorrhage. It must also be borne in mind that coils of small intestine may be present between the anterior coats of the prolapsed tissue.

Prolapse in Infants

Prolapse is often met with in young children, and in most instances results from malnutrition and careless nursing; it may also follow an acute attack of diarrhoea or any wasting illness resulting in loss of weight, such as whooping-cough or measles. In most cases the condition can be cured without the need for any operative procedure, unless it has been present for a considerable time. The general nutrition of the child should be improved so far as possible by careful feeding and the administration of iron and cod-liver oil: syrup. ferri phos. co. 1 drachm, with a teaspoonful of cod-liver oil or an equivalent amount of halibut-liver oil three times a day. At the same time everything possible should be done to prevent the prolapse recurring. For at least a week the child should have the bowels moved with a small enema of soap and water (half a pint) only while lying on the side in bed. The best way to do this is to place a mackintosh under the child and a large pad of wood-wool or tow to receive the excreta. The mother should be instructed to see that after this, for at least a couple of months, the child should relieve itself by squatting over a tray or newspaper; it should on no account be allowed to sit on a chamber or lavatory seat. As a rule, if this routine is carefully carried out and the child's general health is improved the bowel will cease to come down and there will be no further trouble. If the condition persists, or if it has been neglected for some time, operation may be necessary.

OPERATION FOR PROLAPSE IN INFANTS

The operation consists in pulling the prolapsed mass down as far as it will come (under an anaesthetic, not ether), and with a cautery at a dull red heat making deep linear burns longitudinally along it and on to the skin at the anal margin (Fig. 2). The mass is then returned, some petroleum jelly is squeezed into the bowel and a rubber tube inserted for twenty-four hours to prevent the prolapse recurring. The after-treatment should be the same as mentioned above—that is, the bowels should be opened only in bed and the squatting position be used at stool for a month or more.

One would imagine that there would be considerable pain after this operation, but such is not the case, and the patients do not complain of any serious pain or discomfort. The burning causes adhesions between the different coats of the bowel, and is all that is required as a rule to cure the condition in young children.

The injection treatment described further on for old people may also be used in children, but the total amount of oil injected should not be more than 4 c.cm., and an anaesthetic will be necessary as children will not tolerate the speculum.

Prolapse in Old People

It often happens that one is consulted by an old person on account of a prolapse of the rectum which is causing great discomfort owing to its recurrence on the slightest strain or when any attempt is made to move about, and any question of operation is negatived because of age or by intercurrent disease. Such a case may be successfully treated and the patient rendered quite comfortable, for a time at any rate, in the following manner:

Injection Treatment of Prolapse.—The patient should be instructed to get the bowel well cleared out by an aperient, and the next day a tubular rectal speculum, of the type used at St. Mark's Hospital, should be passed into the rectum with the patient in the knee-elbow position; or the left lateral position may be employed, though it is not so convenient. A good forehead lamp should be available if the speculum is not fitted with an electric lamp. The surgeon should have at hand a 3-c.cm. syringe with a hollow needle long enough to reach easily beyond the end of the speculum. The needle must be of sufficiently wide bore to allow oil to pass easily through it (20 wire gauge), and if possible should be fixed to the syringe with a bayonet catch or screw. The solution consists of phenol 5 per cent, in filtered almond oil to which has been added menthol, 2 grains to the ounce. With the syringe full, a spot on the anterior wall of the rectum should be chosen about three inches up the rectum and the point of the needle pushed just under the mucous membrane; 3 c.cm. of the oil should then be slowly injected, producing a large visible swelling. The surgeon's object is to inject the cellular space immediately under the mucous membrane. The appearance of the swelling is evidence that the injection is being made into the correct layer. This process is repeated on the two side walls until a total of 9 c.cm. has been injected. The injections are not painful, and no anaesthetic is required. The patient should at once go to bed, and should remain there for a couple of days.

In addition the patient should be instructed to wear a piece of rubber tube attached to a belt at the back and fastened by a strap and buckle in front. This will exert pressure over the anus and tend to prevent prolapse. As a rule this treatment effectually holds up the prolapse and gives great relief; it may be repeated in a couple of weeks or so if not entirely successful at the first attempt. The patient's bowel actions should be regulated to prevent straining at stool, and the best method of doing this is to use an enema every other day and relieve the bowels while lying in bed, employing a bed-pan.

Prolapse in Adults

There are three degrees of prolapse, by far the commonest being the first degree, in which the rectum protrudes through the anal opening. The mucous membrane covering the prolapsed part is continuous with the skin round the anus, and there is no sulcus between it and the anal opening. In the second degree the upper portion of the rectum is prolapsed into and through the lower, and a sulcus exists between the outer coat of the prolapsed tissue and the anal margin; a finger can be passed up for a short distance into the rectum on the outside of the prolapsing mass. The third-degree prolapse is really an intussusception of the colon, and no part of the rectum is present in the prolapsed mass.

It is not possible to tell one form of prolapse from the other by inspection, but they can easily be distinguished if an attempt is made to pass a finger up beside the protruding mass. In the case of a first-degree prolapse this is impossible. In a second-degree prolapse the finger can be passed up for a short distance, and in one of the third degree to the full length.

It is important to differentiate between the various degrees of prolapse, since each requires different treatment; moreover, in the case of second-degree and third-degree prolapses, merely replacing the protruding mass inside the sphincter will not always reduce the invagination: it will be necessary to pass a speculum and see whether or not the whole invagination has returned to normal. It must be remembered that a large prolapse always involves the peritoneal cavity in the anterior aspect, and that in women, owing to the presence of Douglas's pouch, a shorter prolapse will do so than in males.

There is only one way of treating rectal prolapse in adults successfully—namely, by some form of operation—and this should be performed, if possible, before the frequent protrusion of the prolapse has badly stretched the sphincter muscles; or it may be necessary for a plastic operation to be performed on the muscles in addition to one for holding up the prolapse.

FIRST-DEGREE PROLAPSE

There are several operations that deal with this condition, two of which are described below.

Lockhart-Mummery's Operation.—This consists in opening up the posterior rectal space by means of a transverse incision between the tip of the coccyx and the anus. The space behind and to each side of the rectum is freely separated as high up and as widely as possible and then packed with vaseline gauze (2-inch selvedge gauze boiled in vaseline). Several yards of gauze should be used so as to occupy the entire space behind and at the sides of the rectum. The result of this is that healing can only occur quite slowly by granulation. A rubber tube is placed in the rectum and the bowels are kept confined for a week, the gauze packing being left in position. At the end of this period the patient is given an enema and the bowels are relieved; after this has been achieved an anaesthetic is administered and all the packing removed. The anaesthetic is necessary because removal of the packing is painful. The cavity is washed out with a mild antiseptic and repacked as before with vaseline gauze. The packing is then removed, a little each day until it is all out, when the cavity is drained with a tube and allowed to heal.

The adhesions produced hold the posterior and lateral walls of the rectum back in their proper positions, and the operation is quite successful. The patient should be kept in bed for a month, and for another month should relieve the bowels in bed by using a bed-pan. The anterior wall of the rectum is not refixed by this method, and in a bad case it is better to combine this operation with McCann's, which fixes the anterior wall.

McCann's Operation.—A curved skin incision with the concavity towards the anus is made in front of the anal opening and the incision is deepened until the anterior aspect of the sphincter muscles and the anterior muscle wall of the rectum are exposed. The edges of the anterior portion of the levator ani muscles are defined on each side as they sweep up to surround the vagina or prostate, as the case may be. The inner edges of the two levator muscles are now sewn together with buried catgut stitches, which also take up part of the muscle coat of the anterior rectal wall and, lower down, the upper part of the sphincter muscle. The skin incision is sewn up.

These two operations, combined or separately, will usually cure a case of prolapse of the first degree. Neither of these operations will succeed with a second-degree or third-degree prolapse.

VERY LARGE AND SECOND- AND THIRD-DEGREE PROLAPSES

For these cases the best operation is amputation of the prolapsing mass. This is a rather formidable and difficult operation, as there is much bleeding and the

peritoneal cavity is of necessity widely opened. The results, however, are usually satisfactory, but steps must be taken to avoid a stricture at the line of junction. An alternative is sigmoidopexy, which consists in stitching the pelvic colon to the muscles and fascia in the left iliac fossa through an abdominal incision. The results of this operation have not been good, as the adhesions have tended to stretch, and in several cases internal strangulation of small gut has occurred under the fixed portion of colon. Moschcowitz's operation has also been recommended for such cases. It consists in complete obliteration of the true pelvis through an abdominal incision by stitching together the peritoneal lining of the pelvis in successive layers from the bottom of the pelvis upwards.

ORTHOPAEDIC SCHEME FOR SOUTH AFRICA

DIRECTION OF THE NUFFIELD GIFT

Professor G. R. Girdlestone, F.R.C.S., Nuffield Professor of Orthopaedic Surgery at Oxford, has prepared an outline of a complete orthopaedic scheme for the Union of South Africa following upon Lord Nuffield's gift of £100,000 for such a purpose.

The gift was intended to stimulate the development of orthopaedic services on an adequate scale, for both Europeans and non-Europeans, in the vast area of the Union, and the donor has expressed the hope that the sum will be used, in the main, in the creation of a living organization rather than in the building of one or more hospitals. Professor Girdlestone, during a recent visit to South Africa, found that both in administrative and in medical circles the scheme was acclaimed, and he secured the general agreement of certain official persons to the principles he has laid down. Mr. J. H. Hofmeyr, lately Minister of Mines, Labour, Social Welfare, and Education in the Union Government, has consented to be chairman of the Central Council for Orthopaedic Services which it is proposed to set up.

It is suggested by Professor Girdlestone that £40,000 of the gift should be set aside for the development of orthopaedic services in South Africa, to be allocated to the separate Provinces and for the various purposes as the trustees, in consultation with the Central Council, may decide, and that a further £20,000 be set aside for subsidies to selected specialist orthopaedic surgeons over a period of years, if the Union Government will give an assurance that the subsidies will be continued after this sum has been exhausted. The draft scheme provides that another £20,000 shall be invested to provide income for scholarships for selected young surgeons who, after two years in England, preferably in resident appointments, will undertake to return to South Africa and work there for a stipulated period. The remaining £20,000 is proposed to be put aside as an endowment for two Nuffield lecturers in orthopaedic surgery in the university medical schools of Capetown and Johannesburg respectively.

Outline of the Scheme

To ensure a comprehensive policy and at the same time to allow such elasticity of arrangement that the different conditions in the four provinces can be suitably met, it is proposed that the Union Government be asked to assume some general responsibility and authority. It is thought that a central fund might be established from which grants would be made towards provincial expenditure on the services. The governing body will be the Central Council, which will include representatives of the Union Government, the Union Medical Council, the Provincial Councils, the universities and medical schools, the existing orthopaedic services, and the South African