

The Surgical Treatment of Severe Rectal Prolapse

By E. G. MUIR, M.S.¹

London

I BELIEVE that one of the most effective operations in the surgical treatment of severe or complete rectal prolapse is that of anterior resection. It is effective because it can be adapted to deal with what we know about the pathological anatomy of this condition. Some of the features of rectal prolapse can be demonstrated before operation: others are apparent only at laparotomy. Instead of being closely applied to the hollow of the sacrum, the rectum has a mesentery which is loosely attached to the left side of the front of the sacrum and it does not lose this mesentery until it reaches the sacrococcygeal region and even here its attachment is a loose one. The central part of the pouch of Douglas is deep and descends between the rectum and the vagina to the level of the levator ani. A finger pressing on the bottom of this sac will invert the rectum through the levator gap or hiatus and out through the anal orifice. Over three hundred years ago Ambroise Paré, the famous French surgeon, drew attention to the prolapse that may follow paralysis of the levator ani and the condition of the muscle is certainly the most important factor in the production of prolapse. In health the levator raphe or plate, upon which the rectum lies before turning downwards through the levator hiatus, is almost horizontal in the erect position and still more so on squatting. When straining takes place in a woman the uterus and vagina are forced backwards and downwards against the rectum and the rectum against the levator but the associated contraction of the muscle "steadies"² the rectum rather than allowing it to be pushed through the hiatus. If, however, the levator tone is poor the line from the coccyx to the anus becomes more vertical, the rectum lies more directly over the levator hiatus, and straining pushes it downwards into it. Repeated prolapse stretches the hiatus and makes the muscle still weaker. The evidence suggests that levator weakness is the most important feature in complete rectal prolapse and that it is more likely to occur if there is a deep pouch of Douglas though this could, of course, be secondary to the prolapse. In treatment the levator must be strengthened or allowed a chance to recover and it must be protected by an alteration in the pouch of Douglas

so that never again can the levator hiatus be stretched by the descending piston-like effect of the rectal prolapse. Attempts to strengthen the levators by suturing them from above, from below or by both routes are used and while I accept that there are different ways of treating the condition I do not believe that suturing is the right course. It is surely better to carry out some procedure that will make it impossible for the prolapse to recur and once this is achieved time, exercises and faradism will assist the levators to recover. An anterior resection will fulfil these requirements. In performing the operation the peritoneal sac in the pouch of Douglas is excised and the rectum mobilized completely so that its muscular junction with the levator ani can be demonstrated. If full mobilization is not carried out the rectum does not have the same opportunity to form fresh adhesions and the amount of rectum remaining below the site of resection is more difficult to assess. In order to avoid any risk of incontinence 3-4 in. (7.5-10 cm.) of rectal stump should remain and the amount of rectum and sigmoid colon excised should be such that there is neither redundant bowel nor tension. After the anastomosis the bowel should run in a straight line from the splenic flexure to the rectal stump. The pelvic peritoneum is sutured so that the sigmoid lies in the left posterior quadrant of the pelvis, the uterus falls back into the right posterior quadrant and the plane of the peritoneum on the posterior abdominal wall passes down across the front of the uterus on to the surface of the bladder.

This operation performs a radical excision of the prolapse from the abdomen, so that no "slack" remains. I have seen a recurrence of mucosal prolapse in one case, easily dealt with, but recurrence of the complete prolapse I believe to be impossible. Adhesions fix the anastomosis to the sacrum and soft tissues of the pelvis and anyone who has converted an anterior resection into an abdominoperineal for recurrent carcinoma will know just how strong these adhesions can be. With the peritoneal carpet of the pelvis picked up and relaid there is now a block over the levator hiatus and the muscle has a chance to recover. Enough rectal stump is left to ensure continence and finally, though it is a major operation, it is tolerated remarkably well by elderly women. I have now used the operation on 34 patients with 1 post-operative death from pulmonary embolus on the thirteenth day.

Before performing the operation I tell my patients that I have two disabilities to treat: their prolapse and the incontinence which is always present to a varying degree. Once the

¹King's College Hospital, London.

²An abbreviated account of a very complicated action.

prolapse has been cured the incontinence will recover. The great majority develop continence after a few months: there has been none whose continence has not been improved.

A film entitled **Sacro-promontory Fixation of the Rectum for Complete Rectal Prolapse** was shown by DAHER CUTAIT, M.D. (Sao Paulo, Brazil.)

The Clinical Importance of Melanosis Coli

By BRUNO SAMENIUS, M.D.¹

Gothenburg, Sweden

A BROWN or black pigmentation of the rectum and sigmoid colon is observed from time to time in the course of routine sigmoidoscopic examinations. It is also seen in the proximal colon in operation specimens and at autopsies. Since the pigment has been definitely classified as melanin, the term melanosis coli, as suggested by Virchow in 1858, is generally accepted. Earlier the condition was called "colitis pigmentosa" which term was discarded as no inflammatory changes could be demonstrated in connexion with the disease.

Most investigators agree that the pigment is accumulated in the deeper layers of the mucous membrane and the submucosa but never in the surface epithelial cells. The origin and characteristics of the pigment have caused controversy since the condition was first recognized. The chemical and biological nature of the pigment will not be discussed here but the statement that it is at least a melanin-like substance may be accepted.

The pigmentation is the result of chronic ingestion of anthracene laxatives, cascara, senna and aloe. The laxative is by some supposed to be absorbed in the small bowel and excreted in the colon and rectum and under special conditions deposited there.

Melanosis coli cannot be regarded as an unusual condition and it is my experience that at sigmoidoscopy it is found in about 10% of persons over 40 years of age. The condition seems to be twice as common in women as in men and more frequent among elderly persons. It seems as if the main ætiological factor is chronic intestinal stasis combined with the use of anthracene cathartics over a long time. Melanosis is frequently observed in cases where there is a pathological anorectal condition with

¹From the Faculty of Medicine, Gothenburg University, Sweden.

a contracted anus or an obstruction anywhere in the colon and rectum but also in cases with chronic constipation where there is no mechanical cause for it.

Where there is no fæcal stasis, melanosis does not seem to develop even if cathartics are used over a long period of time. The colour of the mucous membrane varies from light tan to intense black with a fine polyhedral network of yellow striæ thought to be of vascular origin. As a rule the pigmentation is found to be most intense in the rectum just inside the sphincter and less dark proximally. Infrequently the distribution is patchy or more marked in the right portion of the colon. The pigmentation is also as a rule more intense above an obstructing carcinoma of the colon or rectum (Fig. 1) but it also

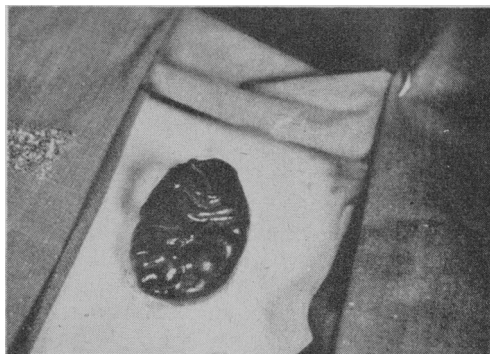


FIG. 1.—Melanosis coli: black transverse colostomy in a patient with an obstructing malignant lesion of the left colon.

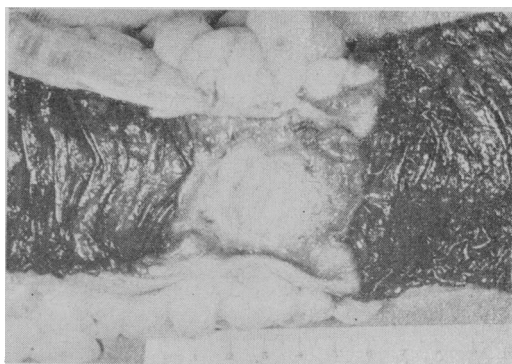


FIG. 2.—Specimen showing an obstructing colon cancer with intense pigmentation above and below the lesion.

commonly occurs below. However, there is sometimes no appreciable difference (Fig. 2).

Apart from the fact that melanosis as a rule is a sign of chronic constipation and regular use