A New Method of Colorectal Anastomosis in Abdominoperineal Resection

DAHER E. CUTAÍT, M.D.,† FELIPE JOSÉ FIGLIOLINI, M.D.††
Department of Surgery, Medical School of the University of São Paulo
São Paulo, Brazil

ABDOMINOPERINEAL rectosigmoidectomy is, at present, considered the operative method of choice for treatment of megacolon. This operation is based on the pathogenic basis of dyskinesia of the distal portion of the intestine. According to this theory, dilatation of the sigmoid flexure results from lack of the propulsive function of the rectum and sometimes also of the sigmoid flexure, due to defective contraction of its muscular fibers. The defective contraction is caused by agenesis of the Auerbach's myenteric plexus in Hirschsprung's disease and by inflammatory lesions in the acquired megacolon that cause partial or total destruction of the Auerbach's myenteric plexus. To remedy this condition, removal of the diseased, as well as the dilated portion of colon, with immediate re-establishment of bowel continuity by colorectal anastomosis, seems therefore to be a rational surgical procedure. This is why rectosigmoidectomy has been performed by most experienced surgeons all over the world. Notwithstanding its effectiveness, there are some restrictions owing to the high incidence of postoperative complications, most of which are due to disruption, of varying degrees, of the colorectal anastomosis. In Hirschsprung's disease disruption is rather rare, but in acquired megacolon it is encountered in a large number of cases. In Raia and Haddad's† 158 patients with acquired megacolon who underwent rectosigmoidectomy, this complication was encountered in 67 cases (42.4 per cent) and in our series of 222 patients it was noted in more than 30 per cent. In our experience, proximal colostomy, may reduce the hazard of disruption, but it does not prevent it.

FIG. 1. Sigmoidorectal segment dissected down to the anus in the abdominal phase of the operation. Stitch shows the level where the sigmoid is to be divided in the perineal phase of the operation.

† Head of the group in charge of colorectal surgery (Professor Eurico da Silva Bastos).
†† Assistant Professor.
Leakage of the anastomosis is usually accompanied by infection of the presacral space. In such cases purulent discharges should be drained through a rubber tube introduced through a stab wound at the anococcygeal line or they may be drained into the peritoneal cavity. This complication may be followed by an infected perineal stercoral fistula or peritonitis, respectively.

When disruption of the anastomosis produces a sinus, healing occurs spontaneously in the majority of cases. On a fair number of patients, however, it is necessary to perform corrective operations, such as enlargement of the perineal drainage area or fistulectomy, either of which usually gives poor results. Obviously the results are worse when the disruption is larger. Stenosis, anal incontinence and permanent infection may follow disruption of the anastomosis, requiring the patient to continue permanently with the proximal colostomy.

In order to lessen the incidence of disruption and to obviate its harmful effects after abdominoperineal rectosigmoidectomy, we devised and began to perform a new technic of colorectal anastomosis in 1959. This method is based on the prin-