Surgical approaches to obtaining optimal bowel function

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Abstract

Approximately 50% of patients have an unsatisfactory functional result after traditional restorative rectal resection, and an even higher percentage, at least in the early postoperative period, suffers from urgency, frequent bowel movements, and occasional faecal incontinence. The rectal reservoir function is disturbed after restorative surgery. This is related to the size of the rectal remnant, the viscero-elastic properties, and the motility pattern of the neorectal wall, because segments of the remaining colon can only substitute for the rectum to a limited extent. A straight anastomosis is recommended when the rectal remnant (measured from the anal verge) is at least 7 to 8 cm. The side-to-end anastomosis is probably preferable to the end-to-end anastomosis. In contrast, a straight anastomosis at the levator plane cannot be recommended. If straight anastomosis is still considered, the descending colon should be used rather than the sigmoid colon. The colonic pouch was introduced to increase the neorectal volume and eliminate some of the functional disturbance associated with the reduced neorectal volume occurring after a straight colo-anal anastomosis. To obtain optimal functional results soon after surgery, a pouch should be used when the anastomosis is located 3 to 5 cm from the anal verge. The size of the pouch should not be too small. A staple line of 6 to 7 cm is a fair compromise between the low anterior resection syndrome and problems with evacuation. Since the descending colon has a thinner wall and often is healthier than the sigmoid colon, it should be the first choice for the anastomosis.