

BIOLOGICAL VALVES (SEROMIOTOMY) FOR TREATMENT OF CLINICALLY INTRACTABLE DIARRHEA POST TOTAL COLECTOMY DUE TO COLONIC INERTIA

Confecção de válvulas biológicas (seromiotomias) para controle de diarreia intratável após colectomia total por inércia colônica

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INTRODUCTION

The colonic inertia is a cause of severe chronic constipation, causing slow intestinal transit in the whole extension of the large intestine. This disorder is still poorly understood, the pathophysiology has not been defined and there is disabled access to propeaedeutics. It occurs more in women and is associated with improper diet, sedentary lifestyle, drugs, endocrine and metabolic alterations, colonic diseases, neurological and psychiatric disorders and idiopathic causes⁹.

Surgical treatment is performed in case of failure of conservative treatment when there is altered colonic transit with normal physiological study of the pelvis. A total abdominal colectomy with ileorectal anastomosis is the procedure of choice for these patients. Surgical treatment is exception conduct due to complications and morbidity of removal of the large intestine. The evaluation of the results of the transaction made by patients is classified as good and excellent in 89% of cases and dissatisfaction is due to the recurrence of constipation, intractable diarrhea, persistent abdominal pain and bloating. Despite the relief of constipation be successful, the quality of life after colectomy is significantly reduced. The literature shows few results of the operation long term.

The scope of this report is to present a surgical technique that can be applied in patients undergoing total colectomy with intractable diarrhea.

CASE REPORT

Woman of 56 years presented for medical care with intractable diarrhea and severe perianal dermatitis. She underwent total colectomy for constipation 20 years ago because it was up to 12 days without a bowel movement. She developed uncontrollable diarrhea, urgent defecation, severe

perineal dermatitis, no effective response to the constant use of loperamide and dietary adjustments. She used to have up to 40 bowel movements per day. Became an alcoholic with psychiatric disorder in chronic use of antidepressants and anti-anxiety drugs and was removed from her job. She was reoriented about trying new doses of loperamide on adjustments in diet and the importance of psychological and psychiatric treatment for alcoholism. Was requested double contrast barium enema and anorectal manometry. The enema showed a normal rectum reflux into the ileum and a patent ileorectal anastomosis. In manometry, there were normal internal and external sphincter pressures and the anal inhibitory reflex was present. Moreover, there was no suggestive sign of puborectal muscle contracture. The sensitivity was preserved.

The initial proposal was to accompany her for psychiatric treatment for alcoholism. After discuss the case with psychiatrist and with family support, the patient decided to operate one year and a half after the first visit. The surgical approach was to construct three equidistant ileal seromyotomies, 10 cm from each other, cranial to ileal anastomosis. They were carried out by sectioning the seromuscular layer to the mucosa circumferentially (360°) without damage to the mesentery, followed by suture with simple points, extramucosal (Figure 1)^{1, 2, 8, 11}.

The patient progressed well in the immediate postoperative period without complications. She appeared in all medical appointments, reporting a maximum of six bowel movements per day without dermatitis and progressing in psychiatric treatment. She underwent barium enema for the morphological study of the ileorectal anastomosis and seromyotomies (Figure 2).

DISCUSSION

Constipation affects one in 50 people in the U.S., with an incidence three times higher in women. Patients undergoing surgical treatment for colonic inertia constitute a tiny fraction. Lane, in 1908, described 39 cases of patients with it treated surgically. The ileorectal anastomosis in total colectomy, segmental colectomy with cecorectal anastomosis and ileosigmoid anastomosis are employed. Studies show that subtotal colectomy with cecorectal anastomosis is a feasible and safe procedure in cases of isolated colonic inertia. Mild abdominal pain may persist; however, no return of constipation.

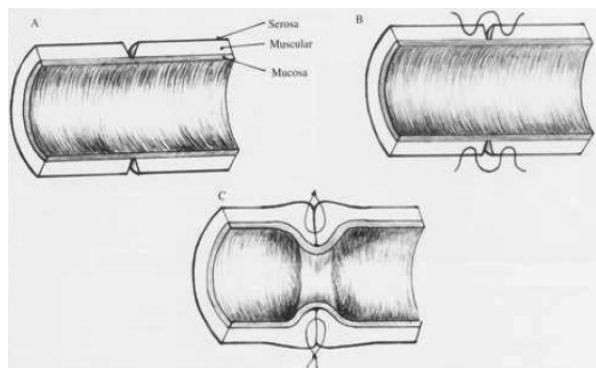


FIGURE 1 - Illustration of circumferential submucosal seromyotomy, then invaginated suture (colonic valves) ¹¹

The stool frequency observed with this technique was 4.8 ± 7.5 per day ^{4, 6, 7, 13, 15}.

There are several ways to better assess colonic and pelvic floor function in the final diagnosis of colonic inertia. The pressures of the anal sphincter complex in rest and in contraction are assessed in anorectal manometry which should be indicated to these patients ¹². The defecogram is needed to evaluate the pelvic floor, rectum and anal canal in relation to evacuation, evaluating morphological and functional abnormalities of the anorectal region. Electromyography is indicated to diagnose the syndrome of paradoxical contraction of the puborectal muscle. The colonic transit time is considered the test of choice for the characterization of functional constipation and it is easy to perform. In the evaluation of patients with colonic inertia, the association of tests is recommended to better characterize the pathophysiological process that leads to colonic inertia ¹⁰. According to this patient electromyography was not performed preoperatively because they failed the exam. The patient must be informed that surgery only deals constipation. Symptoms such as pain and bloat, may persist after surgery, although not included in the surgical indications. Remember that the association between inflammatory bowel disease and colonic inertia can occur. The distinction between them should always be made following the criteria of Rome III ¹⁵.

The increase in the number of evacuations after the operation may be responsible for poor quality of life. The literature reports it occurring between 0% and 46%. This variability reinforces the discussions related to the benefits of this type of operation ^{9,13}.

The definition of successful surgical treatment of colonic inertia is indefinite. Some authors consider success when there are no more than three bowel movements per day and not less than once every three days ^{3, 14}.

The quality of life with the ileostomy for diarrhea treatment was shown to have a negative effect. Aiming to solve the problem in a more physiological way, seromyotomies have been proposed for the preparation of this patient, following the principles proposed by [Lázaro da Silva](#) (1991) in the making of perineal colostomy ¹⁵. This procedure results in slight fibrotic ring without stenosis of the gut lumen, but a braking mechanism that is responsible for the continence ^{2, 5, 6, 11, 14}. The follow-up period of 34 months showed a patient psychologically better, maintaining treatment for alcoholism without relapsing,

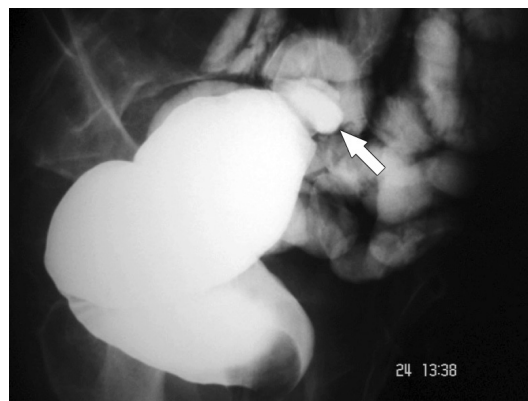


FIGURE 2 - Barium enema: rectum and seromyotomy (arrow): it is observed that there is no distension of the ileum upstream of the first valve (arrow)

without diarrhea, evacuating from four to a maximum of six times per day without dermatitis, with improvement of chronic anal fissures, reinserted in the social context and reaching a lifestyle closer to normal.

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