Journal of Coloproctology

www.jcol.org.br

Case Report

Idiopathic megacolon in a teenager treated by laparoscopic rectosigmoidectomy☆

Carlos Eduardo Oliveira Sodero, Emerson Abdulmassih Wood da Silva, Dirceu de Castro Rezende Júnior, Gustavo Roberto Carvalho Tiveron, Aurélio Fabiano Ribeiro Zago, Rafael Andrade de Oliveira, Bernardo Rosa e Souza, Luciano Ricardo Pelegrinelli*

Universidade Federal do Triângulo Mineiro (UFTM), Hospital de Clínicas, Uberaba, MG, Brazil

ARTICLE INFO

Article history:
Received 26 March 2015
Accepted 11 April 2016
Available online 27 April 2016

Keywords:
Megacolon
Megarectum
Duhamel

ABSTRACT

Chronic constipation in children and adolescents is relatively common and a reason for consultation with pediatricians and proctologists. Most cases respond to medical treatment. Advanced cases of megacolon and megarectum can be treated surgically by Duhamel technique.

This case report describes a 15-year-old patient with chronic intestinal constipation refractory to clinical treatment associated with megacolon and megarectum, which was surgically treated.

Megacolon idiopático em adolescente tratado por retossigmoidectomia videolaparoscópica

Palavras-chave:
Megacolon
Megarreto
Duhamel

RESUMO

A constipação intestinal crônica em crianças e adolescentes é relativamente comum e motivo de consultas a pediatras e coloproctologistas. A maioria dos casos responde ao tratamento clínico. Casos avançados de megacolon e megarreto podem ser tratados cirurgicamente através da cirurgia de Duhamel.

Este relato de caso descreve um paciente de 15 anos de idade com quadro de constipação intestinal crônica refratária ao tratamento clínico associada a megacolon e megarreto, o qual foi tratado cirurgicamente.

☆ Study conducted at Discipline of Coloproctology, Department of Surgery, Hospital de Clínicas, Universidade Federal do Triângulo Mineiro (UFTM), Uberaba, MG, Brazil.

* *Corresponding author.*
E-mail: carlosodero@yahoo.com.br (C.E.O. Sodero).

http://dx.doi.org/10.1016/j.jcol.2016.04.002

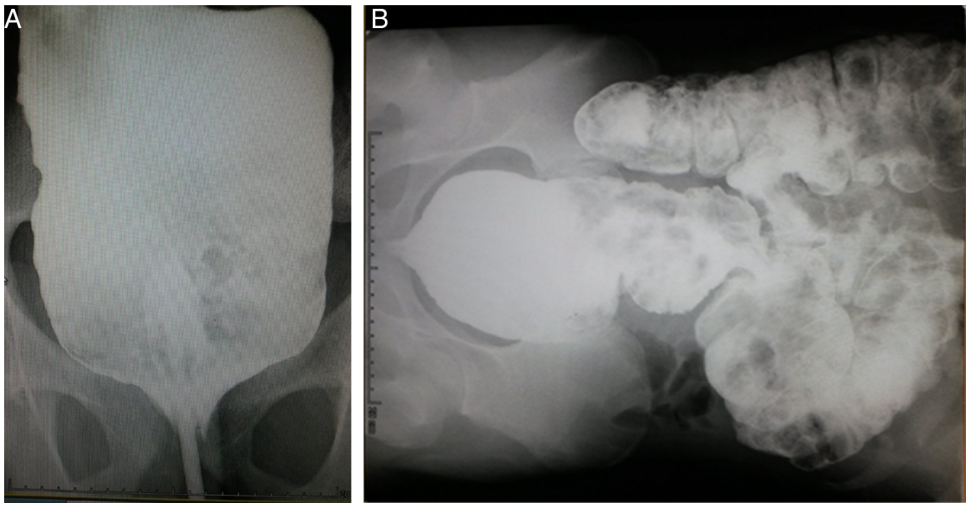

Fig. 1 – Barium enema.
Source: Proctology Service, HC-UFTM.

Introduction

Chronic constipation in children and adolescents is relatively common and a reason for consultation with pediatricians and proctologists. There are no formal statistics of this disease in this age group, but this complaint corresponds to 3–5% of all pediatric consultations and to 10–25% of referrals to gastroenterologists and proctologists.[1]

More than 50% of cases usually have a good response to clinical treatment, but in a minority of patients, the surgical treatment is imperious (some cases of megacolon and megarectum).[2]

Case presentation

A white, male, 15-year old patient (accompanied by an adult responsible woman) came to the Coloproctology Service outpatient clinic (HC-UFTM) complaining of "getting constipated since childhood." The woman reported that since the age of 4 the patient suffers from constipation that, on certain occasions, lasts for a full month (sic). She also reported that since about a year ago there is a frequent need for "enemas" and denied other diseases, the use of medicines, or previous surgeries, and that socially the patient is "a very withdrawn boy." During the physical examination of the patient's abdomen, we could perceive a distended abdomen with a non-pulsatile, depressible, painless palpable mass in his left hemiabdomen. The proctological examination revealed a normotonic sphincter and a large amount of hard stools occupying the rectum, as well as a wide rectal ampulla.

The patient has undergone a barium enema, which showed an advanced megacolon associated with megarectum (Fig. 1A and B).

The anorectal manometry showed caudal migration of the higher-pressure zone, the presence of an anorectal inhibitory reflex, and hypertonia of the internal anal sphincter.

Negative serology for Chagas disease

From these data, we have suggested a diagnostic hypothesis of idiopathic megacolon or Hirschsprung's disease.

On December 5th, 2014 the patient underwent laparoscopic rectosigmoidectomy with a retrorectal, low-colorectal anastomosis with good postoperative evolution; he was discharged on December 11th, 2014.

The pathology of the surgical specimen revealed preservation of myenteric ganglia, besides megacolon/megarectum. In the postoperative outpatient follow-up, a good progression was observed, with a frequency of defecation of 3/3 days with normal consistency stools.

Discussion

Chronic constipation is relatively common in children and adolescents, being a reason to consultation with pediatricians and proctologists. In advanced cases, constipation is associated with poor growth/development of this population.[3]

Histological studies showed myenteric plexus denervation in all colonic segments, as a result of an inflammatory process. This process ultimately destroys the ganglion cells and generates motility changes, especially in the sigmoid-rectoanal segment. This compromises the coordination of muscle contraction movements and hinders the progression and expulsion of stools.[4]

Over 50% of cases respond to medical treatment. In a minority of advanced cases of megacolon and megarectum, in which one can see poor growth/development of the patient – and therefore of his/her quality of life, there will be an indication for surgery (Duhamel and its variations).[5]

Some diagnostic tests may be used, for instance, barium enema, anorectal manometry, rectal biopsy and intestinal motility studies. Patients with aganglionosis will not show the anorectal inhibitory reflex. However, manometry results can be difficult to interpret in patients with megarectum.[3]

In 1963, Bernardes and Reis Neto & Cunha in concurrent studies introduced both in Brazil and in Latin America the idea of using the Duhamel technique for surgical treatment of acquired megacolon.[4]

The use of mechanical suturing, which obviates the need for a perineal colostomy, provided the final elements to the almost universal acceptance of this technique, as the best currently proposed surgical treatment for this condition.[4]

The use of laparoscopy for the treatment of acquired megacolon, with the completion of the colon-rectum-anal anastomosis, has been introduced in 1994 and brought great benefits to the patient, particularly with respect to the period of hospitalization and a shorter recovery time postoperatively.[4]

Conflicts of interest

The authors declare no conflicts of interest.

REFERENCES

1. Fishman LN, Israel EJ. An approach to the child with constipation. Semin Colon Rectum. 1994;5:116–23.
2. Clayden GS. Management of chronic constipation. Arch Dis Child. 1992;67:340–4.
3. DiLorenzo C, Flores AF, Reddy SN, Snape WJ Jr, Bazzocchi G, Hyman PE. Colonic manometry in children with chronic intestinal pseudo-obstruction. Gut. 1993;34: 803–7.
4. Reis Neto JA, Pedroso MA, Lupinacci RA, Reis Junior JÁ, Ciquini S, Lupinacci RM, et al. Megacolo Adquirido - Perspectivas Fisiopatológicas para o Tratamento Laparoscópico. Rev Bras Coloproct. 2004;24:49–62.
5. Meier-Ruge W. Epidemiology of congenital innervation defects of the distal colon. Virchows Arch A Pathol Anat Histopatho. 1992;1420:171–7.