v. 2, n. 76, 2022

International Journal of Health Science

CECAL VOLVULUS: CASE REPORT WITH LITERATURE REVIEW

Maria Sylvia Rennó Kallás
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/3003949060088000

Bia Yamashita Fonseca
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/1690640244381318

Paolla Dixini Coelho
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/0716505175745687

Luana Oliveira de Faria
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/7149682602269305

José Fábio Capozzi
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/5521132938838776

Guilherme Miranda Bócoli
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/6370422551451502

Bruna Maria Guimarães Dominguete
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
https://lattes.cnpq.br/8830536908019060

Beatriz Eduarda Pereira
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/8583317771442361

Yuji Atarashi Tavares
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
http://lattes.cnpq.br/1997361441287943

Lunara Cristina de Souza
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
https://orcid.org/0000-0002-8071-231X

Isabela Corrêa Simões
Universidade do Vale do Sapucaí
Pouso Alegre- Minas Gerais
https://orcid.org/0000-0002-2192-9666

Abstract: Introduction: Cecal volvulus corresponds to 1% of causes of obstructive acute abdomen, resulting from torsion of the intestinal cecum over its own mesentery. Clinical presentation is variable, from intermittent, self-limiting abdominal pain to acute abdominal pain associated with intestinal ischemia and sepsis. **Methodology:** Female, 78 years old, abdominal pain and distension, cessation of elimination of flatus and feces, emesis and nausea. Through exploratory laparotomy, cecum volvulus was identified. She underwent ileocolectomy and terminal ileostomy, with good results. **Results and discussions:** Faced with an obstructive abdomen, imaging tests and colonoscopy are useful to guide the diagnosis. Therapy is influenced by intestinal vitality, covering procedures such as colonoscopic reduction to right colectomy. **Conclusions:** This report emphasizes the importance of cecal volvulus as a diagnostic hypothesis in obstructive conditions, aiming at an agile diagnosis and subsequent correction, avoiding complications such as intestinal perforation and ischemia.
Keywords: Ileostomy. Colectomy. Bowel obstruction.

INTRODUCTION

The torsion of a segment of the digestive tract at a fixed point is defined as volvulus and represents 15% of the causes of acute obstructive abdomen, a clinical syndrome characterized by the impediment to the progression of the intestinal contents. The main sites affected by volvulus are the sigmoid colon and the cecum. Cecal volvulus, corresponding to 22% of volvulus cases,

occurs due to an axial torsion involving the cecum, terminal ileum and ascending colon. It is established that the occurrence of VC is a multifactorial process that depends on the mobility of the cecum in the peritoneal cavity and a mobile mesocolon. In addition, some risk factors may be associated, such as: postoperative adhesions, late pregnancy, high fiber intake, adynamic ileus and chronic constipation. High morbidity and mortality was detected after surgical resection of the CV, about 60% of the patients will present some complication and the delay in their diagnosis is highly associated with the increase in this percentage. The illustration of this case and the exposition of its epidemiological, clinical, diagnostic and therapeutic aspects can enable early detections that improve the prognosis of patients, since immediate treatment can avoid important outcomes.

METHODOLOGY

Female patient, 78 years old. Abdominal pain for 3 days, colicky, with worsening intensity over time, associated with abdominal distension, cessation of elimination of feces and flatus, nausea, emesis, sweating and chills, sought the Samuel Libânio Emergency Service (MG). History of diabetes mellitus and systemic arterial hypertension. She underwent hysterectomy surgery 30 years ago. On examination, good general condition, ruddy, dehydrated (+/4+), eupneic. Her abdomen was distended, painful on deep palpation, and RHA was absent. In laboratory tests she had a CRP of 360 mg/l; potassium of 3.2 mEq/l; Hb of 11.7 g/dl; 166 mg/dl urea; glucose of 125 mg/dl; 6.4 mg/dl phosphorus; 1.8 mg/dl creatinine; chlorides of 112 mg/dl; 0 mg/dl lactate; 0.50 mg/dl direct bilirubin; BE -3.3 mmol; cHCO3 of 21.2 mmol. On abdominal radiography, signs suggestive of volvulus in the proximal portion of the large intestine. In view of the suspicion of obstructive abdomen, an exploratory laparotomy was performed. Diagnosed with cecum volvulus and submitted to ileocolectomy and terminal ileostomy. Referred to ICU admission. Need to use dobutamine, due to the history of HF, crystalloid solution of 2.5 L, for BP at lower levels, in addition to the use of Ciprofloxacin and Metronidazole as antibiotics. Eupnea at 5l/min of supplemental O2. Functioning right flank ileostomy. Due to the good evolution, the patient was discharged from the ICU and admitted to a ward bed. Good acceptance of soft diet and optimized prokinetic drugs. She was discharged with early return guidance for Japanese drain evaluation and outpatient follow-up. TCLE was requested to prepare the current observational cross-sectional study, in addition to data collection via medical records and registration of procedures.

RESULTS AND DISCUSSIONS

The case presented illustrates a typical picture of cecal volvulus (VC), whose incidence is about 1 in 3-7 million people per year, affecting people at older ages (between 60-79 years), female in about 70% of the cases and with risk factors, mainly previous abdominal surgery (HASBAHCECI, BASAK and ALIMOGLU, 2012), allowing to verify that the reported patient fit into all these most affected groups. CV usually presents as an acute obstructive abdomen, marked by localized or diffuse abdominal pain, of strong intensity, with progressive worsening, associated with vomiting and cessation of gas and feces elimination. When suspecting the condition, complementary exams must be requested for a better diagnostic elucidation, including simple abdominal radiography, which usually demonstrates cecum dilatation, air-fluid level and small intestine dilatation upstream, absence of downstream gas and, in some situations, the cecum in

an unusual position (MADIBA and THOMSON, 2002). Computed tomography of the abdomen (CT) demonstrates the presence and location of volvulus, in addition to allowing the assessment of ischemia and intestinal perforation, the main complications of the condition, based on the presence of the "whirlpool sign", which demonstrates torsion of the meso. Colonoscopy is more a diagnostic than a therapeutic method, although it can be used for this purpose, allowing the identification of the colonic torsion point (MACIEL, SALÁN and GUISARD, 2009). Therapeutic approaches vary according to the patient's clinical condition and the observation of intestinal viability during the surgical procedure. Colonoscopic reduction, devolution with cecopexy or right colectomy can be performed. In the case reported, the patient had a clinical picture indicative of a surgical approach, which allowed, during the procedure, the visualization of areas of vascular suffering, being indicated to perform an ileocolectomy + terminal ileostomy, an approach that, in most situations, presents good results. prognosis (CONSORTI and LIU, 2005; LIU, et al, 1985). Despite being an infrequent condition, being responsible for only 1-1.5% of the causes of intestinal obstruction in adults, cecal volvulus presents clinical and radiological signs that have been widely discussed in the literature, allowing early diagnosis and therapeutic approach, with total improvement of the condition and good prognosis.

FINAL CONSIDERATIONS

Intestinal rotation about the mesenteric axis is more prevalent in the sigmoid colon and cecum. Constipation, abdominal pain, and distension make up the clinical picture of this scenario, and imaging tests are useful to clarify the etiology of the obstruction. Therefore, treatment appropriate to the patient's stability must be established early, avoiding complications such as gangrene or intestinal perforation. The report described coincided favorably with the surgical treatment, although it progressed to later complications and death.

REFERENCES

1. BALLANTYNE, G. H.; BRADNER, M. D.; BEART Jr, R. W.; ILSTRUP, D. M. **Volvulus of the colon**. Incidence and mortality. Annals of surgery, [s. l.], v. 202, n. 1, p. 83-92, Jul. 1985. Disponível em: https://pubmed.ncbi.nlm.nih.gov/4015215/. Acesso em: 18 nov. 2022.

2. CONSORTI, E. T.; LIU, T.H. **Diagnosis and treatment of caecal volvulus.** Postgraduate medical jornal, [s. l.], v. 81, n. 962, p. 772-776, Dec. 2005. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1743408/. Acesso em: 18 nov. 2022.

3. HASBAHCECI, M.; BASAK, F.; ALIMOGLU, O**. Cecal volvulus.** The Indian journal of surgery, [s. l.], v. 74, n. 6, p. 476-479, Dec. 2012. Disponível em: https://pubmed.ncbi.nlm.nih.gov/24293902/. Acesso em: 18 nov. 2022.

4. MACIEL, L. C.; SALÁN, F. O.; GUISARD, G. O. **Obstrução intestinal por cecal volvulus, relato de caso.** Revista do Colégio Brasileiro de Cirurgiões, [s. l.], v. 36, n. 1, p. 99-100, Fev. 2009. Disponível em: https://www.scielo.br/j/rcbc/a/QZqLy3YvrmMnHTNRzKYjN8D/?lang=pt. Acesso em: 18 nov. 2022.

5. MADIBA, T. E.; THOMSON S. R. **The management of cecal volvulus. Diseases of the colon and rectum**, [s. l.], v. 45, n. 2, p. 264-267, Feb. 2002. Disponível em: https://pubmed.ncbi.nlm.nih.gov/11852342/. Acesso em: 18 nov. 2022.