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Case report,

Transverse Colon Volvulus: Uncommon Cause Of Bowel Obstruction.

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Abstract:

Transverse colon volvulu is an uncommon cause of bowel obstruction. The diagnosis is made through the image exam and its treatment can be done through colonoscopy when there are no complications or by surgery.

Introduction:

The volvulus refers to the twisting of a segment of the gastrointestinal tract, leading to intestinal obstruction. The most common places for the volvulus are the sigmoid colon and the cecum. Other portions such as stomach, gallbladder, small intestine, splenic flexure and transverse colon are rare. [1-3]

Case report:

Male patient, 52 years old, with epigastric abdominal pain, of moderate intensity, radiating to the right iliac fossa, associated with nausea and vomiting of food content. On physical examination, the abdomen was distended, tympanic, decreased hydro-air noises, with pain on diffuse palpation, with no signs of peritonitis. The blood count showed leukocytosis with neutrophilia. In contrast-enhanced abdominal tomography, the loops of the large intestine were distended with the presence of a transition zone in the ascending colon. He was diagnosed with colonic volvulus and decided to perform

endoscopic clearance. During the procedure, a fragile area was observed, opting for laparotomy. During the surgical procedure, a dolichocolon with a transverse colon volvulus was found, with significant dilation and areas of ischemia without perforation. A release of the ascending and descending colon was done with clamping, cutting and ligation of the transverse mesocolon and excision of the piece. Then, a laterolateral anastomosis with mechanical suture and closure of the mouth in two planes was performed. During the postoperative period, the patient presented a satisfactory evolution and was discharged in the following days.

Discution:

In a study of 546 cases of cervical volvulus, it was found most frequently in the sigmoid (60.9%), followed by the cecum (34.5%), the transverse colon (3.6%) and the splenic flexure (1%). [3]

The etiologies of the transverse colon volvulus can be grouped into mechanical, physiological and congenital. Torsion usually occurs along the mesenteric axis of the intestine, resulting in venous obstruction and, eventually, arterial involvement. [4,5]

The volvulus represents 1-20% of all intestinal obstructions, and only 2-4% are from the transverse colon. [6] The most commonly associated anatomical factors are abnormal mesentery fixation and congenital errors in the rotation of the midgut, physiological factors include a distal impediment to defecation, such as chronic constipation, colon stretching and redundancy, and a narrow fixation point to mesentery, in mechanical factors, the most common is obstruction of the sigmoid colon can be secondary to neoplasia, diverticulitis or sequelae that can also trigger the volvulus in the sigmoid colon. [7-8]

The ascending and descending segments of the colon are fixed, but the sigmoid colon, the cecum and the transverse colon are mobile within the peritoneum, tied by the mesentery. This mobility allows the volvulus to occur in these places. [5]

The transverse colon volvulus does not have the same classically recognizable radiographic characteristics as the sigmoid and cecum volvulus, showing an obstruction of the large intestine with proximal colonic distention, hydro-air levels and a "U" loop with the apex pointing out of the torsion point of the colon. [9-10]

Decompressive colonoscopy is the initial treatment of colon volvulus, regardless of the segment involved, in addition to being a therapeutic measure to assess the state of the colon mucosa, the presence of necrosis or ischemia, with efficacy in 70% of patients. [11-12]

The management of volvulus is controversial. For patients with a viable colon it is prudent to perform colonoscopic decompression as an initial treatment for colon volvulus. Colonoscopy, in addition to being a therapeutic measure, allows the doctor to assess the status of the colonic mucosa and check whether or not there is necrosis or signs of ischemia. It has been shown to be effective in more than 70% of patients. In the case of failure of endoscopic decompression, which usually occurs in most cases located in the cecum and transverse colon, priority surgery is necessary. [10, 13, 14]

Surgical treatment may include open or laparoscopic, with or without colopexy. However, given the high rate of recurrence, an extended right hemicolectomy or transverse colon colectomy is recommended. [7]

Conclusion:

Surgical treatment can be by laparoscopy or open surgery, and given the high rate of recurrence, the recommendation is the right hemicolectomy or extensive resection of the transverse colon.

References:

1. Atamanalp SS. Treatment of sigmoid volvulus: a single-center experience of 952 patients over 46.5 years. Tech Coloproctol 2013; 17:561.
2. Hiltunen KM, Syrjä H, Matikainen M. Colonic volvulus. Diagnóstico e resultados do tratamento em 82 pacientes. Eur J Surg 1992; 158: 607.
3. Ballantyne GH. Review of sigmoid volvulus: history and results of treatment. Dis Colon Rectum 1982 Jul-Ago; 25(5):494–501.
4. Ciraldo A, Thomas D, Schmidt S: A Case Report: Transverse Colon Volvulus Associated With Chilaiditis Syndrome. The Internet Journal of Radiology. 2000.
5. Sparks D, Dawood M, Chase D, Thomas D: Ischemic volvulus of the transverse colon: A case report and review of literature. Cases J. 2008, 1: 10.1186/1757-1626-1-174.
6. Sana L, Ali G, Kallel H, Amine B, Ahmed S, Ali EM, et al. Spontaneous transverse colon volvulus. Pan Afr Med J. 2013 Jan;14:160.
7. Gingold D, Murrell Z. Management of Colonic Volvulus. Clin Colon Rectal Surg. 2012;25:236–244.
8. Valsdottir E, Marks JH. Volvulus: Small Bowel and Colon. Clin Colon Rectal Surg. 2008 May;21(2):91-3.
9. Liolios N, Mouravas V, Kepertis C, Patoulias J: Volvulus of the transverse colon in a child: A case report. Eur J Pediatr Surg. 2003, 13: 140-142.
10. Walczak DA, Czerwińska M, Fałek W, Trzeciak PW. Volvulus of transverse colon as a rare cause of obstruction – a case report and literature review. Pol Przegl Chir. 2013;605-7.
11. Quénéhervé L, Dagouat C, Le Rhun M, et al. Outcomes of first-line endoscopic management for patients with sigmoid volvulus. Dig Liver Dis 2019; 51:386.
12. Althans AR, Aiello A, Steele SR, Bhama AR. Colectomy for caecal and sigmoid volvulus: a national analysis of outcomes and risk factors for postoperative complications. Colorectal Dis 2019; 21:1445.
13. Ramírez-Wiella-Schwuchow G, Villanueva SE, Bolaños BL, García H. Volvulus de colon transverso: reporte de caso. Rev Gastroenterol Mex. 2009;74:35-8.
14. Mulas C, Bruna M. Management of colonic volvulus. Experience in 75 patients. Rev Esp Enferm Dig. 2010;102 (4):239-248.