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Literature Review

Hernia of Treitz of Colonic Content an Unexpected Diagnosis: Literature Review

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Abstract

Introduction: Intestinal obstruction is a very common pathological entity in the Emergency and Surgery services, with a wide portfolio of diagnoses or very diverse in its characteristics or even with atypical presentations; since it can be acute or chronic, anatomical or metabolic, intraluminal or parietal, vascular, colon or small intestine; however, the specific diagnosis in some patients is even unexpected.

Target: Presentation of a case, review and analysis of national and international medical literature.

Case Report and Result: A 54-year-old male with chronic constipation for more than 3 years, with straining and tenesmus, without bleeding; and in the last 3 days with no evacuation and without channeling gases, with nausea, occasional vomiting, hyporexia, asthenia and adynamia. Emergency surgery was performed, finding an internal hernia of the content of the transverse, descending and sigmoid colon, with minimal ischemia and without intestinal perforation.

Discussion: Treitz hernia is extremely rare as a cause of intestinal obstruction, unlike what is reported in the medical literature where the adhesion cause is the first. The clinical picture is really non-specific, which is generalized in the diagnosis of intestinal obstruction, but its real cause is unexpected if auxiliary cabinet resources are not available. The only treatment is immediate surgery, with aggressive support management and with any surgical methodology in any available option.

Conclusion: Specific preoperative diagnosis is a real challenge. The treatment is surgical and the faster it is carried out, the morbidity and mortality complications suffered by patients decrease exponentially.

Keywords: *Intestinal Obstruction; Constipation; Treitz's Hernia; Surgical Treatment*

Introduction

Intestinal occlusion (IO) is a very common pathological entity in the Emergency and Surgery services, with a wide portfolio of diagnoses and very diverse in its characteristics, or even with atypical presentations; since it can be acute or chronic, anatomical or metabolic, intraluminal or parietal, vascular, colon or small intestine [1,2] however, the specific diagnosis in some patients is even unexpected. Internal hernias without surgical history are extremely rare, their incidence is less than 1%, as a cause of IO or acute abdomen (AA), and they are defined as an abnormal protrusion of a viscera from one abdominal compartment to another [3]. Of the internal hernias, the Treitz hernia (TH) is critically an even minor presentation. It was in 1789 that Christian Neubauer described TH for the first time [4].

Target

Report of a case and review of the national and international medical literature.

Case Report and Result

A 54-year-old male, assessed in the emergency room with a history of colon cancer in the direct line of two relatives under 40 years of age. He denies chronic-degenerative diseases. No surgical history. It begins with diffuse abdominal pain, colic type, of low intensity, immediately postprandial to two hours later, located in the epigastrium and mesogastrium of four years of evolution, with a gradual increase in its incidence and intensity; becoming continuous and severe for 15 days, and in the last 72 hours the symptoms become disabling. It presents with chronic constipation for more than 3 years, with pushing and tenesmus, without bleeding; and in the last 3 days with no evacuation and without expelling gas, with occasional nausea and vomiting; hyporexia, asthenia and adynamia. He denies fever and weight loss. On physical examination, HR: 120x´, RF: 30x´, T/A: 96/ 65 mm Hg, Temp: 36°C. Conscious to soporous, with dry mucous membranes, pale integuments, abdomen with abdominal distention, peristalsis of struggle and metallic sounds. Intense pain on palpation, and increases with decompression, impossible to palpate visceromegaly. Generalized tympany. Capillary filling 6". Laboratories: minimum leukocytosis of 11.O x 10^3 mm3. Neutrophilia 89%. Lymphopenia 18%. Hemoglobin 15 mg/dl. Hematocrit 46.5%. Platelets 345.00 x 10^3 mm^3. Blood chemistries, arterial blood gases, and serum electrolytes are not available. Standing and decubitus radiographs of the abdomen (Figure 1-3) with colon dilation, air-fluid levels, interesting edema, reflex ileus, cut colon, absence of air in the rectum. Without further imaging radiological resources. Emergency surgery was performed, finding an internal hernia of the contents of the transverse, descending and sigmoid colon, with incipient ischemia and without any intestinal perforation (Figure 4 and 5) through the Treitz or paraduodenal foramen, with colon dilatation and torsion on the transverse axis, little reaction fluid and with minimal intestinal ischemia. The hernia is reduced without complications and a 2.5 cm foramen closure is performed in its major axis (Figure 5). Without intestinal resection, his evolution is satisfactory with discharge home at 72 hours.

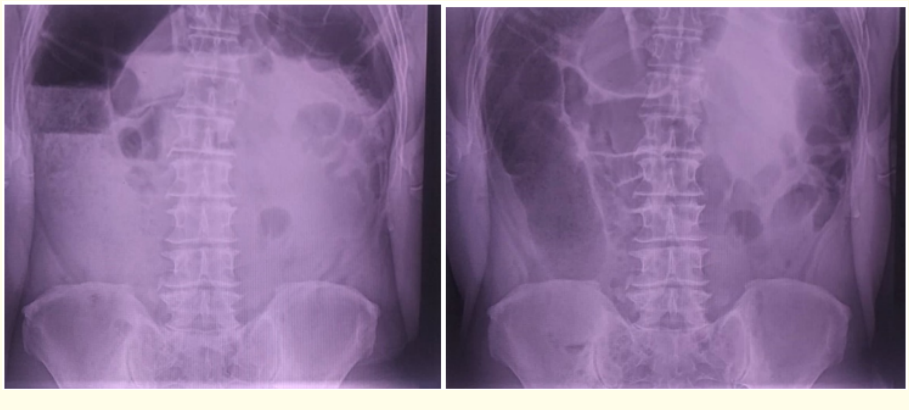

Figure 1 and 2

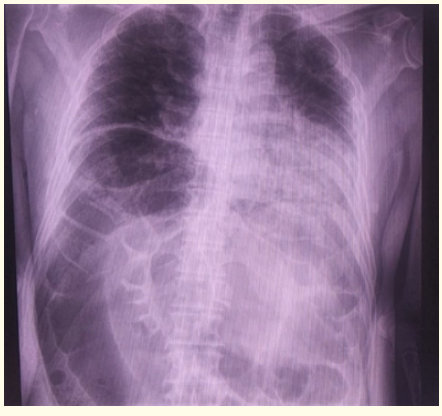

Figure 3

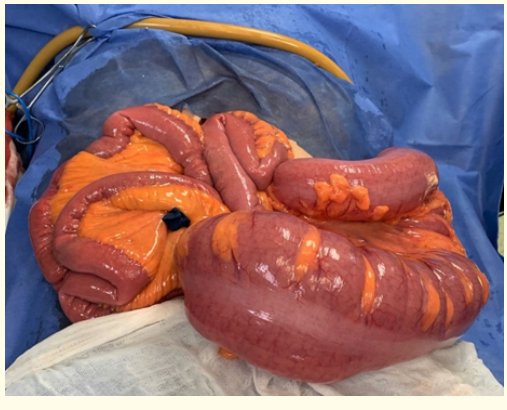

Figure 4

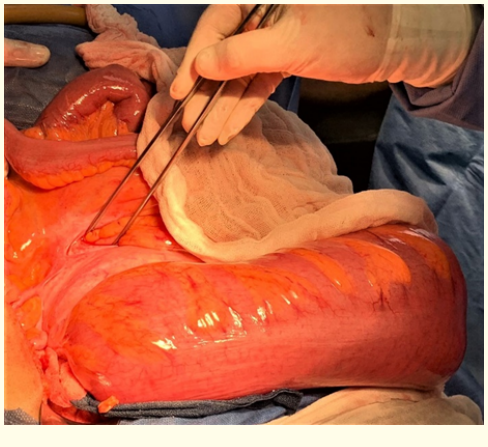

Figure 5

Discussion

TH is extremely rare as a cause of IO, unlike what is reported in the medical literature where the adherence cause is the first [1,5]. Some authors describe this type of internal hernia as congenital because it does not have a surgical history, and its embryological origin is also determined from a malrotation of the midgut [4,6-9]. This type of TH has been documented since the dawn of the last century, but they are only isolated cases to date [10,11] the previous statement does not conceive then how its incidence of presentation can be affirmed. The clinical picture is really nonspecific, which is generalized in the diagnosis of IO, but its real cause can be unexpected if there are no auxiliary cabinet resources. Chronic abdominal pain is a symptom that stigmatizes this disease, as is the lack of a surgical history [12,13]. On the contrary, the common denominator is to present an IO and an AA in a critical phase [14]. Pre-surgical diagnosis can be achieved with the help of cabinet studies such as intestinal transit, computerized axial tomography, nuclear magnetic resonance [12,15,16] or failing that, until reaching a diagnostic laparoscopy, thus being a diagnostic challenge with an unexpected result [17]. Treatment should be immediate to avoid complications such as massive intestinal resections, short bowel syndromes, placement of stomas with high-output ileostomies, dehydration, infections, hemorrhages, nosocomial pneumonia, fluid and electrolyte imbalance, malabsorption syndrome or colostomies, which will require a new risk of an added surgical procedure; with an exponential increase in the morbidity or mortality of patients, which have been reported in up to 50% of patients with this pathology [14,18]. The only treatment is immediate surgery, with aggressive support management and with any surgical methodology in its options available in the hospital infrastructure, such as conventional surgery, laparoscopic surgery or even robotic surgery. Hernial contents, mostly small intestine and occasionally colonic content, are reduced, feasibility is assessed, or compromised bowel is resected; with closure of the foramen or paraduodenal or Treitz hernia defect [18-20].

An extensive search of the world medical literature was performed on more than 11,000 manuscripts with the following observations:

1. Only the publication of unique clinical cases or case reports were found.
2. In most cases, the average age was 40 to 50 years at the time of HT presentation, with IO and/or AA data.
3. Indeed, there is no surgical history in the vast majority of patients.
4. Almost all the pre-surgical clinical diagnosis of IO is common with the help of cabinet studies, however, its specific etiology of a TH is not.
5. Due to the high incidence of age at presentation in patients with IO or AA (mainly in the fourth and fifth decade of life). Is the assertion of an embryonic origin then valid?

Conclusion

TH is actually extremely rare as a cause of IO or AA. The authors conclude an etiology of embryonic TH, but at the same time also acquired by the laxity of the tissues with the age of the patients, as in other surgical pathologies, such as paraesophageal hiatal hernia. Specific preoperative diagnosis is a real challenge. The treatment is surgical and the faster it is carried out, the morbidity and mortality complications suffered by patients decrease exponentially.

This analysis is described with the intention of contributing new precepts to the surgical medical community.

Conflict of Interests

The authors declare that they have no conflict of interest.

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