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INTERNAL HERNIA IN A PATIENT WITH NO HISTORY OF PREVIOUS ABDOMINAL SURGERY: A CASE REPORT

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Abstract: Internal hernia is a rare condition that usually occurs as a result of a congenital defect or as a post-surgical complication. However, it is difficult to diagnose and can lead to serious complications such as intestinal necrosis. Abdominal CT can facilitate diagnosis and thus reduce the time required for surgical treatment. Rarer than the internal hernia itself, this article presents the report of a case of internal hernia in an adult with no history of previous abdominal surgery. With the aim of discussing the topic and, therefore, providing better assistance to the patient, it brings scientific relevance and questions the possibility of improving the diagnosis of this disease.
Keywords: Internal hernia. Acute abdomen. Obstruction. Laparotomy.

INTRODUCTION

Internal hernia is defined as intraperitoneal visceral protrusions through anatomical structural defects in the gastrointestinal system, such as a fovea or a foramen in the abdominal cavity. Anatomical structures such as vessels and mesenteric angles are points of weakness whose facilitation of the formation of an internal hernia may be its consequence. Originally, they can be divided into congenital and acquired. (1,2,3,4)

The diagnosis of primary internal hernia is rare in adults and is difficult to perform. The diagnostic difficulty is mainly due to diffuse symptoms, in addition to the lack of findings on physical examination. The main clinical presentation is symptoms of mild intestinal obstruction. Abdominal pain then becomes a symptom to be considered as possible in this case. The condition may also present with epigastric pain, nausea and signs of ischemia. (1,2,3)

This condition can be identified through an imaging test already known to most doctors, computed tomography (CT). Another possibility is intraoperative diagnosis through laparoscopy, the gold standard. Using CT, it is possible to find the hernial sac, the herniation orifice, as well as possible complications such as torsion and intestinal obstruction. (2,3,5)

The risk of an untreated internal hernia is potentially fatal complications such as visceral strangulation and intestinal obstruction, thus increasing unfavorable outcomes when considering morbidity and mortality. The risk of ischemia, in the case of an internal hernia, is increased, in addition to non-surgical treatment having a higher risk of failure when compared to conventional hernias, thus making it a higher risk diagnosis. (2,3,5,6)

Therefore, it is of great value to increase knowledge about this type of hernia, thus bringing the possibility of faster investigation and recognition, in addition to consequently a more accurate therapeutic approach and in less time.

Therefore, this study sought to report a clinical case of internal hernia in a patient with no previous history of abdominal surgical procedures. In addition to creating a discussion on the topic and thus providing better medical assistance.

OBJECTIVE

This article aims, through a report, to discuss a clinical case of internal hernia in a patient with no previous history of abdominal surgical procedures.

CASE REPORT

Patient W.L.R, 61 years old, male, was admitted to the service after transfer from an emergency care unit complaining of diffuse abdominal pain that had been insidious for about 2 days, with worsening intensity for 1 day; accompanied by episodes of vomiting and abdominal distension. He denied fever or diarrhea. The patient reported the absence of bowel movements from the beginning of

the illness until he presented a single episode of bowel movements, with no changes in the appearance of the feces, on the same day he received the patient. He reported that, approximately 1 month ago, he had a bowel habit of constipation for 4 days, with less intense pain than the one he was experiencing at the time. He only had a surgical history of vasectomy. Denied abdominal surgeries.

On physical examination, he was in good general condition, good nutritional status, lucid and oriented in time and space, flushed, hydrated, acyanotic, afebrile and anicteric. With vital signs within normal parameters, with the exception of arterial pressure, whose values were above the recommended level, namely 156/86 mmHg. During an abdominal physical examination, the examiner found a globular, semi-distended, depressible abdomen, without signs suggestive of peritonitis, with pain on palpation in the right upper quadrant, without specific findings, in addition to bowel sounds. Upon rectal examination, normotonic sphincter, enlarged prostate with no surface changes, painless to the touch, no feces in the rectal ampoule, no blood on the glove finger, with the presence of fecal dirt on the glove finger; upon rectal inspection, without external injuries, in addition to preserved mucosa.

A computed tomography (CT) scan of the abdomen was requested and performed, which demonstrated torsion of the mesenteric vessels, as well as segmental vessels of the small loop, associated with marked hydro-aerial distension, upstream, and also gastroparesis; thus, suggesting obstruction. With these findings, the hypothesis of an internal hernia was raised. (figures 1 and 2).

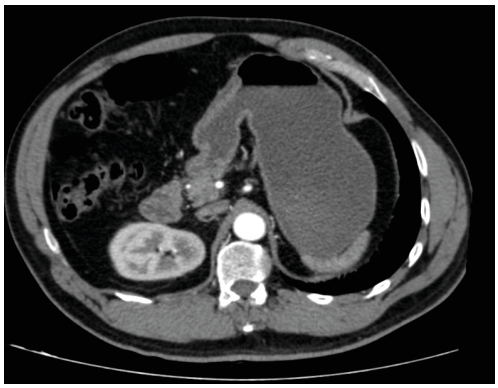

Figure 1: Preoperative computed tomography showing stop point

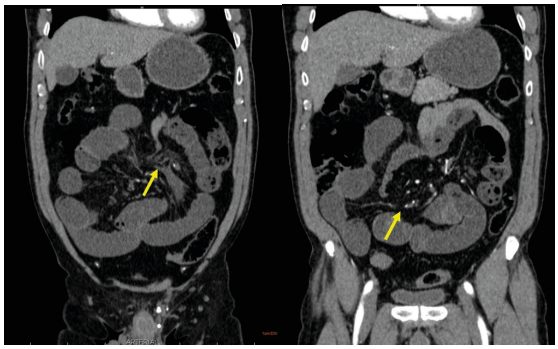

Figure 2: Preoperative computed tomography showing twisted mesenteric vessels, indicated by the yellow arrow

Due to the main diagnostic hypothesis, an exploratory laparotomy was indicated and performed, the findings of which were the presence of free fluid in the cavity, without changes in appearance; thickened peritoneum in Treitz angle topography, forming a continent and containing loops of small intestine, which showed no signs of distress; absence of purulent collection in the cavity, viable loops and other segments of distended small intestine. Lysis of adhesions in the peritoneum, which was thickened, was carried out with subsequent release of the previously trapped intestinal loops. With follow-up according to local postoperative protocols.

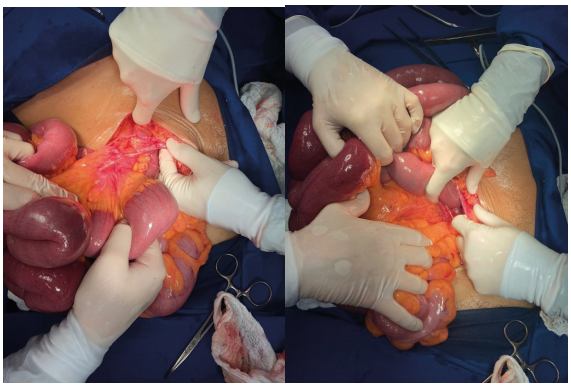

Figure 3: intraoperative image showing thickened peritoneum and adhesion in Treitz angle topography forming continent.

DISCUSSION

Internal hernia is a rare category of abdominal hernias that represent only a small percentage (0.2-0.9%) of all cases of intestinal obstruction. Xu H et al, states that the incidence of cases in the literature is no more than 5.8%. Furthermore, there are no reports of cases of internal hernia whose etiology could not be associated with a previous history of abdominal surgical approach, a probable iatrogenic cause or genetic defect. (7,8,9,2,4)

Internal hernia usually forms after subtotal gastrectomy and radical resection of rectal cancer. Abnormal spaces formed after reconstruction of the gastrointestinal tract are the main cause, the consequence of which can be intestinal obstruction. When abdominal pressure increases and peristalsis is vigorous, it can cause impaction, affecting the blood supply, with the possibility of generating intestinal necrosis, a serious complication. (1,10,8)

Although mechanical small bowel obstruction may be suspected based on risk factors, symptoms, and physical examination findings consistent with obstruction; Abdominal imaging is generally necessary to confirm the diagnosis, identify the location of the obstruction, judge whether it is partial or complete, identify related complications, such as ischemia, necrosis, perforation, in addition to determining the potential etiology. Furthermore, an early diagnosis has a better prognosis, as it simultaneously anticipates treatment. (7,3)

Abdominal CT, especially those with multiple detectors, is the exam of choice, as it provides high precision, high-resolution images in addition to reconstructions in multiple planes. Xu, H. et al, recognize CT as an effective diagnostic technique. Despite this, Murphy, K. et al, considers that internal hernia is one of the most challenging diagnoses when it comes to imaging diagnosis. (7,8,11)

Treatment is surgical, laparoscopy or laparotomy. When an internal hernia is found, the hernia must be reduced while occluding the existing space. An early approach is brought by Xianqing et al as an effective treatment for this condition. Chen, J. and Ye, K. agree that treatment must be as early as possible, in addition to reiterating the importance of prevention when thinking about postoperative complications. (12,1,8,4)

Despite being a feasible possibility, spontaneous reduction is not effective on its own. This is due to the fact that there is a great possibility of recurrence and with it the fearful adverse effects, such as viscera strangulation, subsequent necrosis and thus surgical resection, which will be more complicated and carry greater risks. Thus, surgical treatment becomes mandatory. (7)

CONCLUSION

Although the intraoperative method is considered the gold standard, there is a tendency in the literature to use CT for diagnosis, due to the multiple added advantages it brings. In addition to being a method already widely used by services and various diagnoses of the same and other nature, CT is a non-invasive, fast and less expensive method for a diagnosis whose

difficulty is recognized.

Furthermore, the importance of recognizing and treating internal hernia as early as possible is related to its potential complications, the worst being intestinal necrosis, the adverse effects of which are increased when this is present. Treatment can be carried out laparoscopically or by laparotomy, depending on the assessment of each patient's status.

Although rare, the diagnosis of a hernia must be considered by a medical professional when faced with a non-specific acute abdominal condition. Making a difficult diagnosis requires prior knowledge of such a condition, and this results in an improvement in the quality of care for the patient. Therefore, this article is of immense relevance to health professionals, as it disseminates a rare but possible case. It is also questioned the possibility of under-diagnosis of internal hernia due to the lack of knowledge on the part of the assisting professionals of its possibility and existence.

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