

Several studies^{1,2,3,4,5,6,7,8,9,10,11} report different variations. The most representative of them is to Hiatt et al.⁵ with a sample of 1000 people. The variation here presented (common hepatic artery + superior mesenteric artery) is of uncommon occurrence with an average of 2%. This value agrees well with the values found in other articles, ranging from 1.6% to 3.5%.

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REFERENCES

1. Arjhansiri K, Charoenrat P, Kitsukjit W. Anatomic variations of the hepatic arteries in 200 patients done by angiography (resumo). J Med Assoc Thai. 2006 Sep; 89 Suppl 3: S161-8.
2. Bertevello P L, Chaib E. Variações do sistema arterial hepático e sua aplicabilidade na bipartição do fígado: estudo anatômico em cadáveres. Arq. Gastroenterol. 2002, vol.39, n.2 [cited 2010-12-04], pp. 81-85.
3. Chen H, Yano R, Emura S, Shoumura S. Anatomic variation of the celiac trunk with special reference to hepatic artery patterns (resumo). Ann Anat. 2009 Oct; 191(4): 399-407.
4. Freitas A C T, Coelho J C U, Matias J E F et al. Anatomia arterial hepática: estudo em 150 transplantes hepáticos. Rev. Col. Bras. Cir. 2001, vol.28, n.1 [cited 2010-12-04], pp. 13-16.
5. Hiatt J R, Gabbay J, Busuttill R W. Surgical anatomy of the hepatic arteries in 1000 cases (resumo). Ann Surg., 1994 Jul, 220(1): 50-2.
6. Koops A, Wojciechowski B, Broering D C. Anatomic variations of the hepatic arteries in 604 selective celiac and superior mesenteric angiographies. Surg Radiol Anat, 2004 Jun 26(3): 239-44.
7. Lopez-Andujar R, Moya A, Montalva E, Berenguer M Et Al. Lessons learned from anatomic variants of the hepatic artery in 1,081 transplanted livers (resumo). Liver Transpl, 2007 Oct 13(10): 1401-4.
8. Soares R V, Coelho J C U, Matias Jef, Zeni Neto C., Freitas A C T, Godoy J L. Anatomia da artéria hepática em doadores e receptores de transplante hepático intervivos. Rev Col Bras Cir. 2006 Mar-Abr, 33(2).
9. Mburu K S, Alexander O J, Hassan S, et al. Variations in the Branching Pattern of the Celiac Trunk in a Kenyan Population. Int. J. Morphol. 2010, vol.28, n.1 [citado 2010-12-05], pp. 199-204 .
10. Ottone N E, Agustín A M, Domínguez M L et al. Arterias Hepáticas Aberrantes: Estudio en 64 Cadáveres Disecados. Int. J. Morphol. 2006, vol.24, n.4 [citado 2010-12-05], pp. 581-585 .
11. Song S Y, Chung J W, Yin Y H et al. Celiac axis and common hepatic artery variations in 5002 patients: systematic analysis with spiral CT and DSA. Radiology, 2010 Apr 255(1): 278-88.

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Carta ao Editor

AMYAND'S HERNIA: INGUINAL HERNIA WITH ACUTE APPENDICITIS

hérnia de amyand: hérnia inguinal com apendicite aguda

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INTRODUCTION

The presence of a vermiform appendix inside a hernial sac is not a common condition⁷. In the literature, the reported incidence is around 1% of all hernias⁶. It is even rarer to find an acute appendicitis inside the inguinal hernia⁴.

When the cecal appendix, inflamed or not, is found in the inguinal sac, it is called an Amyand hernia⁵. This kind of hernia is more frequent in men and pre-operative diagnosis is not easy⁹. It must be suspected in patients with a tense inguinal hernia with no signs of intestinal obstruction. The appendectomy will always be carried out at the same time as the repair of the hernia.

The aim of the present study is to present a case of acute appendicitis within a right inguinoscrotal hernia and to review the literature.

CASE REPORT

A 35-year-old male farmworker arrived at the General Surgery Service of the Hospital Universitário Oswaldo Cruz, Recife, Pernambuco, Brazil. He reported the appearance of a mass in the right inguinoscrotal region for around one month without pain. Two days previously he had begun to experience epigastric pain with nausea and vomiting. He visited his local health service and received treatment for gastritis. As the pain continued and was located in the right iliac fossa, he was admitted to hospital. A physical examination revealed a heart rate of 100 bpm, a respiratory rate of 21 ipm, PA=130x80 mmHg and an inguinoscrotal hernia on the right side with slight irritation of the peritoneum. He was referred for surgery and the procedure revealed an inflamed appendix with purulent secretion at its apex within the hernial sac. As surgical access was by transverse incision of the inguinal hernia, it was decided to perform the appendectomy and the Bassini repair of the hernia simultaneously (Figure 1). Antibiotic prophylaxis with metronidazole and ceftriaxone was carried out for 24 hours. After two days, the patient was discharged from hospital with no complications. The result of a biopsy confirmed the appendicitis.



FIGURE 1 – Inflamed cecal appendix in a right inguinoscrotal hernia

DISCUSSION

Some authors believe that a cecal appendix in an inguinal hernia was first described by De Garengot in

1731¹⁰. Claudius Amyand (1681-1740), a French surgeon, who was a refugee in England, was the first to perform an appendectomy^{13,11}. The appendix is found in the hernial sac in around 1% of inguinal hernias and an inflamed appendix is found in only 0.13% of cases.

A variant of this, an appendix inside a femoral hernia, is called a Garengoet hernia⁴. In 1937, Ryan described 11 cases of acute appendicitis (within an inguinal hernia) among 8,692 cases of appendicitis¹². Another author¹ reported 10 cases of appendicitis within an inguinal hernia over nine consecutive years.

The etiopathogenesis of acute appendicitis is unclear. Many authors believe there is an association between incarceration and inflammation of the cecal appendix in the hernial sac, that is, an ischemic phenomenon deriving from compression of the organ by the hernial ring leading to appendicitis¹⁴. Typical symptoms of acute appendicitis, such as initial epigastric pain settling later in the right iliac fossa, nausea, vomiting and anorexia may also be seen in patients with an Amyand hernia. According to the literature, fever and leukocytosis are not common in these patients¹³. Pre-operative diagnosis is unusual. In an article reviewing 50 cases of Amyand's hernia, only one case was diagnosed prior to surgery¹⁴.

The presence of peritoneal irritation and early pain in an incarcerated hernia may suggest appendicitis inside the hernial sac. The use of imaging methods may assist diagnosis⁴.

Surgery is mandatory. However, the kind of surgery recommended subject to controversy. In most circumstances, treatment involves an emergency appendectomy and repair of the hernia⁸. When there is a risk of complications, such as a pericecal abscess, the appendectomy should be pre-peritoneal to minimize possible infection of the wound and recurrence of the hernia².

REFERENCES

- Carey LC. Acute appendicitis occurring in hernias: a report of 10 cases. *Surgery* 1967; 61:236-8.
- Doyle GS, McCowan C. Amyand hernia: a case of an unusual inguinal herniace. *Am J Emerg Med* 2008; 26(5):637. e5-6.
- Franko J, Sulkowski R. A rare variation of Amyand's Hernia. *Am J Gastroenterol* 2002; 97(10):2684-5.
- Gillion JF, Bornet G, Hamrouni A, Jullès MC, Convard JP. Amyand and de Garengoet' hernias. *Hernia* 2007; 11(3):289-90.
- Hiatt JR, Hiatt N. Amyand's hernia. *N Engl J Med* 1988; 318(21):1402.
- Hotiana MM, Kundu S, Ahmad I. Complicated inguinal hernia of Amyand. *South Med J* 2007; 100(4):411.
- Lippolis PV, Barlettai M, Filidei F, Seccia M. The Amyand's hernia. Case report and review of the literature. *Ann Ital Cir* 2007; 78(2):153-7.
- Logan MTBS, Nottingham JM. Amyand's hernia: a case report of an incarcerated and perforated appendix within an inguinal hernia and review of the literature. *Am Surg* 2001; 67(7):628-9.
- Losanoff JE, Basson MD. Amyand hernia: what lies beneath--a proposed classification scheme to determine management. *Am Surg* 2007; 73(12):1288-90.
- Priego P, Lobo E, Moreno I, Sánchez-Picot S, Gil Olarte MA, Alonso N, Fresneda V. Acute appendicitis in an incarcerated crural hernia: analysis of our experience. *Rev Esp Enferm Dig (Madrid)* 2005; 97(10):707-715.
- Rodríguez Montes JA. Historias de la cirugía. AstraZeneca 2003; 87-102.
- Ryan WJ. Hernia of the vermiform appendix. *Ann Surg* 1937; 106:135-9.
- Torres Hernández D, Roselló Fina JR, del Campo Abad R, Canals Rabasa PP, Enríquez Weinmann ES. Hernia de Amyand: presentación de un caso y revisión de la literatura. *Arch Cir Gen Dig* 2003; 22 Sep. Available at: www.cirugest.com.
- Weber RV, Hunt ZC, Kral JC. Amyand's hernia. Etiologic and therapeutic implications of two complications. *Surg Rounds* 1999; 22:552-6.

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Carta ao Editor

ENDOSCOPIC REMOVAL OF FOREIGN BODY ABANDONED IN PRIOR LAPAROTOMY

Retirada endoscópica de compressa abandonada em laparotomia prévia

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INTRODUCTION

The actual incidence of foreign bodies retained in the abdominal cavity is not well known, as such cases are under-reported⁵. They occur even with highly experienced surgeons and may cause serious consequences. Related risk factors require the adoption of systematic preventive measures⁵.

This paper aims to report a case involving a surgical sponge abandoned after cholecystectomy that migrated into the duodenum and was successfully removed by upper digestive endoscopy.

CASE REPORT

A 26-year-old female patient underwent videolaparoscopic cholecystectomy converting to open surgery due to choledocholithiasis. Choledocholithotomy plus Kehr drainage was then performed. The patient had a good recovery, but after nine months she sought medical care presenting antropyloric obstruction syndrome (epigastric pain, recurrent postprandial vomiting, and weight loss).

Upper digestive endoscopy revealed the presence of a foreign body, probably a surgical sponge, in the gastric cavity, in the transpyloric region, blocking the passage of the equipment (Figure 1A). Abdominal CT scan (Figure 1B) revealed a well-defined mass located between the liver and the stomach, with mixed density, air bubbles in its inside, and spiral radiopaque stripes representing the sponge markers.

With a diagnostic hypothesis of pyloric obstruction caused by a foreign body, a new upper digestive endoscopy was performed in an attempt to remove the sponge, which was successfully done by snare polypectomy (Figure 2A). After the removal of the foreign body (Figure 2B) superficial esophageal lacerations were observed with self-limited bleeding and a blocked deep ulcer occupying almost all the anterior wall of the duodenal bulb, with no signs of cavity perforation.