

Several studies<sup>1,2,3,4,5,6,7,8,9,10,11</sup> report different variations. The most representative of them is to Hiatt et al.<sup>5</sup> 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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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 condition<sup>7</sup>. In the literature, the reported incidence is around 1% of all hernias<sup>6</sup>. It is even rarer to find an acute appendicitis inside the inguinal hernia<sup>4</sup>.

When the cecal appendix, inflamed or not, is found in the inguinal sac, it is called an Amyand hernia<sup>5</sup>. This kind of hernia is more frequent in men and pre-operative diagnosis is not easy<sup>9</sup>. 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

1731<sup>10</sup>. Claudius Amyand (1681-1740), a French surgeon, who was a refugee in England, was the first to perform an appendectomy<sup>13,11</sup>. 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 Garengot hernia<sup>4</sup>. In 1937, Ryan described 11 cases of acute appendicitis (within an inguinal hernia) among 8,692 cases of appendicitis<sup>12</sup>. Another author<sup>1</sup> 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 appendicitis<sup>14</sup>. 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 patients<sup>13</sup>. Pre-operative diagnosis is unusual. In an article reviewing 50 cases of Amyand's hernia, only one case was diagnosed prior to surgery<sup>14</sup>.

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 diagnosis<sup>4</sup>.

Surgery is mandatory. However, the kind of surgery recommended subject to controversy. In most circumstances, treatment involves an emergency appendectomy and repair of the hernia<sup>8</sup>. 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 hernia<sup>2</sup>.

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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-reported<sup>5</sup>. They occur even with highly experienced surgeons and may cause serious consequences. Related risk factors require the adoption of systematic preventive measures<sup>5</sup>.

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.