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Case Report

Amyand's Hernia: Acute Appendicitis in a Non-Incarcerated Right Inguinal Hernia

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Abstract

Amyand's hernia is considered a rare surgical condition, characterized by the presence of the cecal appendix, inflamed or not, inside the inguinal hernia sac. The authors report a case of Amyand's hernia diagnosed intraoperatively, in which the proposed therapeutic course was appendicular resection by incision of the inguinotomy and then the approach of the hernia defect by Bassini's technique. The patient presented satisfactory clinical evolution and was discharged on day-2 postoperatively.

Keywords: Amyand's Hernia; Acute Appendicitis; Inguinal Hernia

Introduction

Amyand's hernia is characterized by the presence of the cecal appendix, which may be inflamed or not, within the inguinal hernial sac [1]. It was first observed by Claudius Amyand in 1735, during the surgical correction of an inguinal hernia in an eleven-year-old boy [2].

It is an uncommon and rare surgical condition. The incidence of acute appendicitis within the inguinal hernial sac is estimated to be between 0.07% and 0.13% [3], while the probability of finding the normal cecal appendix within the hernial sac corresponds to approximately 1% of all inguinal hernias [4].

Amyand's hernia and associated complications represent a challenge to the preoperative diagnosis, since the symptoms and signs tend to be non-specific [4]. Despite being rare, the association between incarcerated or strangulated right inguinal hernia and acute appendicitis should always be considered, so that optimal therapeutic conduct is adopted [5].

Due to its rarity and major importance to surgical programming, we have decided to present the following case of Amyand's hernia.

Case Report

A 74-year-old male patient from Uberaba-MG has been admitted to the General Surgery Service of the University Hospital Mário Palmério reporting to have been feeling abdominal pain in the right iliac fossa, followed by painful bulging in the ipsilateral inguinal region for four days, with no other associated complaints. Physical examination showed preserved hydroaerial noises, right inguinal bulging during Valsalva manoeuvre, abdomen painless-topalpation, no palpable masses and no signs of peritonitis. Right inguinotomy was submitted to surgical correction and, during the dissection of the hernial sac, the presence of cecal appendix with an inflammatory appearance was identified (Figure 1).

An appendectomy was performed through inguinotomy, with Ochsner's pouch making and reinforcement of the posterior wall of the inguinal canal with the Bassini's technique (Figure 2).

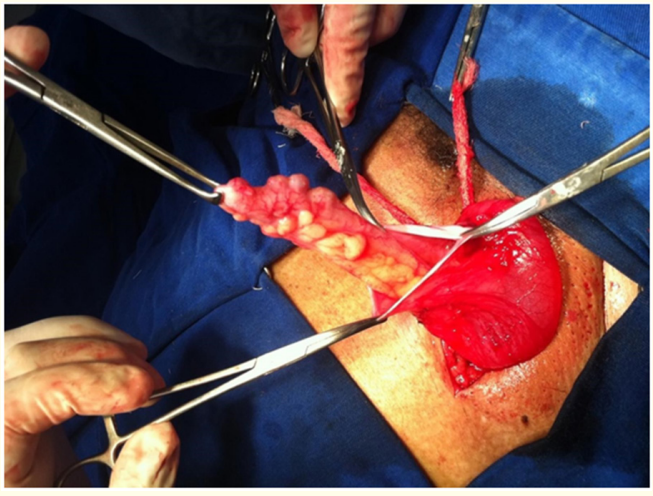

Figure 1: Cecal appendix inside the hernial sac.

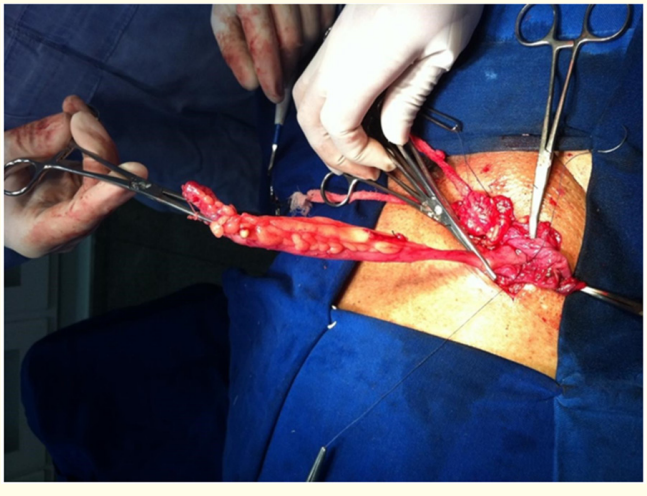

Figure 2: Appendicular resection by incision of the inguinotomy.

The anatomopathological examination of the surgical specimen evidenced acute appendicitis (Figure 3).

Due to a satisfactory clinical evolution, without complications, the patient was discharged on the second postoperative day.

Figure 3: Inflamed cecal appendix.

Discussion

The Amyand's hernia affects individuals of all age groups, and more frequently the male [3,4]. When it occurs in women, it tends to affect those who are postmenopausal [3]. In most of the presented cases, it is diagnosed on the right side, which is due to the normal anatomical position of the cecal appendix and because it is the most prevalent inguinal hernia in such position [6].

The pathophysiological mechanism remains uncertain, but the most accepted hypothesis is that the retrocecal appendix, when entering a patent vaginal process and crossing the inguinal canal, becomes more susceptible to microtraumas and to herniation and incarceration of its base. Such a circumstance can increase intraluminal pressure and predispose to local bacterial proliferation by decreasing blood flow, with consequent ischemia, necrosis and eventual perforation of the wall of the organ [4,7].

The signs and symptoms presented are indistinguishable from those of an incarcerated or strangulated inguinal hernia and are directly related to the situation of the vermiform appendix [7], which makes it difficult to perform the preoperative diagnosis. However, as some authors claim, the diagnosis can be safely performed through the association of imaging, ultrasonography and computed tomography of the abdomen [8,9]. Although our patient showed no signs of either incarcerated inguinal hernia or perito-

neal irritation, due to severe pain, he underwent inguinotomy and the diagnosis of Amyand's hernia was performed intraoperatively.

When there is coexistence of acute appendicitis and incarcerated or strangulated right inguinal hernia, appendectomy can be performed by the inguinotomy incision itself, as described in our case. However, in cases in which the cecal appendix is normal, visceral reduction is enough [3-5,7,10].

After appendicular resection, we approached the inguinal hernia defect. In our service, we chose to use the Bassini's technique to reinforce the posterior wall of the inguinal canal, and we did not use prostheses, since the use of synthetic material should be avoided due to the greater possibility of local bacterial contamination [3,7].

Conclusion

Amyand's hernia is a rare surgical condition and its diagnosis is usually incidental, intraoperatively. As already described in literature, the presence of the incarcerated right inguinal hernia should always raise the clinical suspicion of the surgeon, due to the greater possibility of complications if diagnosed late. However, we also alert the surgeon to the possibility of acute appendicitis, without the classic signs of peritonitis, in a non-incarcerated right inguinal hernia.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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