



Acute appendicitis complicating Amyand's hernia: rare condition

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Amyand's hernia is a rare form of inguinal hernia in which the vermiform appendix is located within the hernia sac. It is seen in less than 1% of inguinal hernia cases. It was first reported in the literature in 1735 by surgeon Claudius Amyand and hence named after him. Diagnosis is confirmed intraoperatively. Here present the case of a patient operated for irreducible right sided inguinal hernia complicated with inflamed appendix found in the hernia sac.

Keywords: Amyand's hernia, inguinal hernia, acute appendicitis.

Introduction

Repair of inguinal hernia is continued to remain one of the most common operations in the general surgery. The inguinal hernia sac usually contains omentum or small bowel. In rare cases however the hernia sac may contain vermiform appendix. In medical literature this is known as "Amyand's hernia" [1]. In this article we are describing the case of this rare type of hernia.

Case report

A 43 years old male was admitted to the clinic with complaints of right sided inguinal swelling and pain. During the last several days preceding the patient's presentation, the pain had become worse and was accompanied with nausea and loss of appetite. He denied any other diseases. Physical examination revealed right sided irreducible inguinal hernia. Laboratory tests were only significant for leukocytosis of 16,300 / μ L with the rest of tests being normal. After preoperative preparation and antibiotic prophylaxis, the patient was taken to the surgery under the general anesthesia. Right sided inguinal hernia canal was opened revealing the hernia sac located anteromedially to spermatic cord. Hernia sac was dissected from surrounding

tissues and cut open to explore the contents. The vermiform appendix with caecum was found in the hernia sac (Fig. 1). Appendix was hyperemic and found to have catarrhal inflammation. Classic appendectomy with subsequent Lichtenstein repair of inguinal hernia was performed. The patient was discharged two days after uncomplicated postoperative hospital stay.

Discussion

Hernia is the abnormal exit of tissue or an organ through the defect in the wall of the abdominal cavity in which it normally resides. Inguinal hernia sac containing vermiform appendix is a rare form of hernia and seen in 0.5-1% of all cases. It was first described by Claudius Amyand and given his name in the honor of the surgeon who first reported this interesting entity in 1735 [1]. The case of an inflamed appendix (appendicitis) within an inguinal hernia in adults is much lower and accordingly to different studies ranges between 0.08% and 0.13% [2]. Amyand's hernias usually found in male patients and present on the right side due the normal anatomic position of the appendix [3].

In most cases the appendix found in the hernia sac is normal. However, the reduction of the appendix's blood supply due to

non-reducibility of the hernia and compression in the external ring originating from increases in intra-abdominal pressure may lead to appendicitis [4].

The diagnosis of Amyand's hernia can be made by ultrasonography (USG), computed tomography (CT) or magnetic resonance imaging (MRI). However, in many cases physical examination accompanied with USG provides sufficient information about clinical presentation [5].

Given the rarity of the Amyand's hernia, there have been no reported randomized clinical trials in the medical literature. Therefore there is no standard surgical approach to the treatment of this type of hernia [5-6]. In case of appendicitis the standard appendectomy shall be performed, while most authors propose to refrain from appendectomy in cases of normal appendix.

There is no unified opinion with regards to the use of prosthetic material for repair of Amyand's hernia. The conflicting opinions are provided in the medical literature related to the use of prolene mesh in infected fields [7]. Many authors argue that use of prolene mesh in infected fields may lead to increased risk of surgical site infection secondary to the inflammatory response and contamination [8]. Campanelli et al. reported no significant infectious complications followed the hernia repair with prolene mesh in patients with concurrent bowel resection performed for various reasons [9].

In our case of 43 years old male patient, the Amyand's hernia was found only intraoperatively with hernia sac containing catarrhal appendicitis. Patient underwent appendectomy. Given the absence of perforation and local purulent discharge, the posterior wall repair was done using prolene mesh. Postoper-

atively patient received antibiotic therapy and discharged with no complications.

Conclusion

Amyand's hernia is a rare condition which is often diagnosed intraoperatively. Surgeons need to be aware of this clinical entity as well as of the surgical treatment options.

References

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Figure 1.
The vermiform appendix with caecum in the hernia sac.