AMYAND'S HERNIA: A RARE CASE REPORT

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Abstract: Amyand's hernia is described in the inguinal hernia sac as being the presence of an appendix vermiformis. *It is a rare condition the incidence is about 1 per cent of all inguinal hernias. It is often diagnosed incidentally during inguinal hernia surgery. The main treatment method of Amyand's hernia is surgery. We report a case of 63 years old man who presented with right inguinal groin bulge for 1 month with the previous repaired right inguinal hernia 5 years ago. On clinical examination revealed a 6 cmx8 cm firm, nontender, irreponible mass in the right inguinal region. He was diagnosed as right sided irreponible inguinal hernia. He was undergoing the elective surgery. Intra-operative, the hernia sac was laterally found in the inferior epigastric vessels and separated from sperm cord to deep inguinal ring. The hernia sac was opened. A non-inflamed appendix was seen. Appendectomy was performed, and the hernia was repaired by Halsted's repair. Amyand's hernia is a rare condition. The correct diagnosis is usually made intraoperative.*

Keywords: *Amyand's hernia, appendectomy, hernia repair, inguinal hernia.*

INTRODUCTION

Amyand's hernia, introduced by Cladius Amyand in 1735, is described in the inguinal hernia sac as being the presence of an appendix vermiformis.[1-4] Based on literature review, Amyand's hernia is a rare condition, the incidence is about 1 per cent of all inguinal hernias.[5] In addition, preoperative diagnosis is difficult, and is often diagnosed incidentally during inguinal hernia surgery[6,7]. There are few case reports and little consensus about how surgeons should handle Amyand's hernia. There is no consensus on the treatment approaches for Amyand's hernia.[8] The main treatment method of Amyand's hernia is surgery.[3]

CASE REPORT

A 63 years old male, a labor, was taken to Department of Surgery, with a chief complaint of a right groin bulge for 1 month. The groin bulge was in control of manually, however for last two days it was not. At first, when he first complains the abnormality, he had sharp pain but had been asymptomatic ever since. There is no defecation disorder, nausea and vomitus. He was concerned that 5 years ago, a right inguinal hernia, previously repaired, had recurred from its original tissue repair.

On general examination, vital signs are still within normal limits, and urine output is normal. On clinical examination, a 6 cm x 8 cm mass in the right inguinal area was found that was hard, non-tender, and incurable. The patient was diagnosed as a right-sided irreponible inguinal hernia.

The patient underwent elective surgery. During surgery, the hernia sac is found laterally in the inferior epigastric vessel and is separated from the spermatic cord into the inner inguinal ring. Hernia sac opened. Uninflamed appendix is visible. An appendectomy was performed, and the hernia was repaired with Halsted repair. The postoperative period went well. The patient was discharged on the 3rd day after surgery. After 3 months of follow-up, the patient was fine.

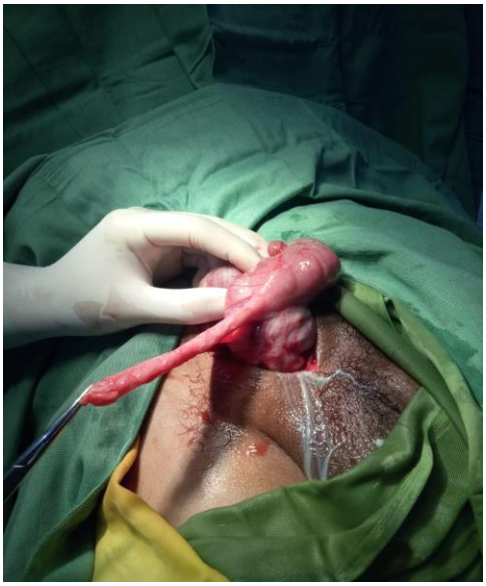

Figure 1. Irreponible hernia sac.

Figure 2. Normal appearance of vermiform appendix as the hernia sac content.

DISCUSSION

Amyand's hernia is a rare condition.[9,10] Amyand's hernia is a protrusion of abdominal cavity content through the ingunal canal with the presence appendix vermivormis.[2,11] Inside the hernia sac an appendix can be found as incarcerated, infected, perforated, or normal.[7] There is no

known pathophysiology of Amyand's hernia, but it is thought that the vermiform appendix will herniate through a patent vaginal process. Sometimes a fibrous band connecting the hernia sac and testis has been found, and may participate in the attraction and guidance of the appendix vermiformis.[11]

Amyand's hernia may be asymptomatic and act like normal inguinal hernia, or when the hernia contains an inflamed appendix, it may simulate strangulated hernias.[12,13]

Therefore, Amyand's hernia diagnosis is normally performed intraoperatively. An ultrasonography or computed tomography can helpful for the diagnosis but not a standard procedure for this disease. These imaging studies can display a dense, non-compressible tubular structure with increased vascularity.[14]

Table 1. Amyand's hernia classification

Type	Description	Management
1	Normal Appendix with an inguinal hernia	Hernia reduction, mesh repair, appendectomy in young patients
2	Acute appendicitis within an inguinal hernia, no abdominal sepsis	Appendectomy through hernia, primary endogenous repair of hernia, no mesh
3	Acute appendicitis within an inguinal hernia, abdominal wall, or peritoneal sepsis	Laparotomy, appendectomy, primary repair of hernia, no mesh
4	Acute appendicitis within an inguinal hernia, related or unrelated abdominal pathology	Manage as types 1 to 3 hernia, investigate or treat second pathology as appropriate

Lasanoff and Basson at 2007 have proposed a system for classifying and managing the Amyand's hernia as seen on table 1. This classification system may be very useful for intraoperative decision making for such a diagnosis.[15]

Based on Lasanoff and Basson classification, this case included in type 1 with normal appendix. The management of type 1 Amyand's hernia is hernia reduction and appendectomy in young patient. This case, the patient is 63 years old, but the surgeon considers to perform hernia repair and appendectomy to prevent future complications. After 3 months of follow-up, the patient was fine.

Non-inflammatory appendix is estimated to occur in 1% of all adult hernia repairs, while 0,13% of appendicitis cases occur in an inguinal hernia. Kose et al. described five case of Amyand's hernia with appendectomy for a normal appearing appendix with inguinal hernia repair with mesh placement without any complications within a year.[1,10]

An Amyand's hernia diagnosis, although many surgeons may never encounter it in their careers can be unusual challenge.

CONCLUSION

We report a rare case of Amyand's hernia in 63 years old male. The patient was treated for right inguinal hernia repair and appendectomy.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interests regarding the publication of this paper.

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