

A rare case report of appendix and cecum in the sac of left inguinal hernia (left Amyand's hernia)

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Abstract

This case is a rare aspect of left inguinal hernia. The patient was a 60-years old man with left scrotal mass since childhood. In the operating room, the hernia sac was opened which included cecum and appendix that is called left Amyand's hernia. The patient underwent herniorrhaphy with Lichtenstein repair.

Keywords: Appendix, Amyand's hernia

Introduction

Hernias are weak areas of the body wall through which intraabdominal structures may pass, and the most common surgical procedures are inguinal hernia repair (1). Almost any intraabdominal organ could be found within the hernia sac (2).

Over the past centuries, surgeons have identified the presence of unusual organs in the hernia sac; most commonly are the organs of lower abdominal and pelvic organs. Presence of appendix in the hernia sac which first described by Claudius Amyand is of such case. Amyand during herniotomy on a 17 years boy in 1735 observed that the hernia sac contained an inflamed appendix, so he performed the first case of appendectomy through the same herniotomy incision(3). In up to 1% of inguinal hernias an appendix without inflammation could be found in hernia sac. However, presence of appendicitis

in the hernia sac is rare and is seen in 0.08% of all cases (4).

Case report

A 60-years old man with left scrotal mass since childhood who was referred to surgery clinic of Dr Shariati hospital for surgery. He had a very large indirect inguinal hernia in the left side which was irreducible but not strangulated. In his past medical history he had scoliosis which any special treatment was not done for it. He had no pain and no fever. His vital signs were normal. In physical exam there was a very large scrotal mass on the left side. Other parts of body were normal. The laboratory data were within normal limit.

Patient was taken to the operating room and underwent a general anesthesia. The classic incision of left inguinal hernia was created and the hernial sac was appeared. Because of chronic process of the hernia, the

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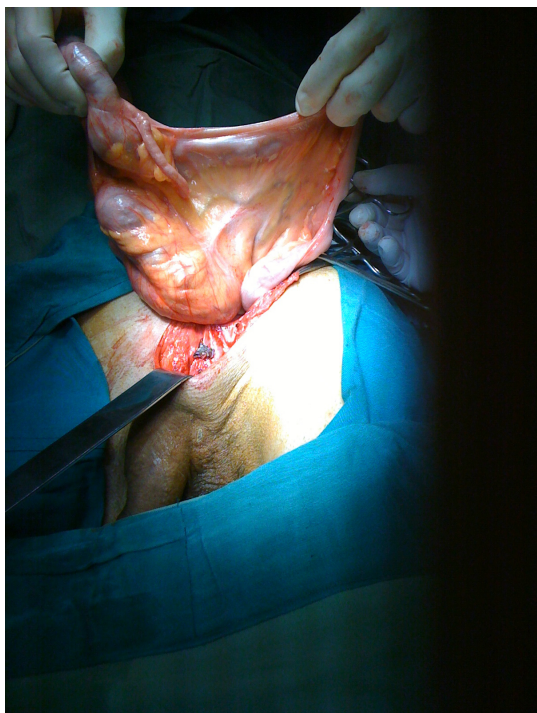


Fig 1. Illustration Of left hernia sac containing cecum and inflamed appendix.

adhesions released promptly and the sac was opened. Cecum and appendix were within the hernia sac which returned to abdominal cavity (Fig.1). Herniorrhaphy was done with Lichtenstein repair. The patient was discharged after 2 days with good general condition, normal vital signs and normal bowel habitués.

Discussion

Presence of appendix within the hernia sac is a rare occasion, and even is much rare on the left side. In such cases surgeon may confront with malrotation of bowels, mobility of cecum or situs inversus (5). Occurrence of hernia increases with aging, and according to one study reviewing 18 cases, the median age of affected individuals was 42 years, with a maximum of 89 years (6). Concerning the pathophysiology of this condition, bacterial overgrowth is a result of impairment in blood supply as a subsequent of either incarceration following the swelling (7) or after the appendix enters the sac (8). It is worth mentioning that Amyand's hernia always is entirely diagnosed in the operation scene, and pre-operative diagnosis is really impos-

sible. As demonstrated by a study of 60 cases during 40 years, of which only one was diagnosed properly prior to surgery (7). Unlike other cases of inguinal hernias containing bowel loops, Amyand's hernia presents as a tender mass in inguinal region without clinical or radiological finding suggesting gastrointestinal obstruction, and leukocyte counts may be normal(9-11). In emergent conditions, differential diagnosis should include strangulated or incarcerated hernia, strangulated omentocele, Richter's hernia, testicular tumor with hemorrhage, acute orchitis, inguinal adenitis and epididymitis. In our case, there was no manifestation of emergent condition and the operation was elective (12).

References

1. Kingsnorth, A, LeBlanc, K. Hernias: inguinal and incisional. *Lancet* 2003; 362:1561.
2. Aydin R. Uncommon content in groin hernia sac. *Hernia* 2006; 10: 152-155.
3. R Hutchinson, Amyand's hernia, *Journal of the Royal Society of Medicine* 1993; 86.
4. D'Alia C, Lo Schiavo MG, Tonante A, Taranto F, Gagliano E, Bonanno et al. Amyand's hernia: case report and review of the literature. *Hernia* 2003; 7:89-91.
5. Gupta S, Sharma R, Kaushik R. Left-sided Amyand's hernia. *Singapore Med J.* 2005; 46:424-5.
6. Solecki R, Matyja A, Milanowski W. Amyand's hernia: a report of two cases *Hernia* 2002; 7:50-51.
7. Weber RV, Hunt ZC, Kral JG. Amyand's hernia: Etiologic and therapeutic implications of two complications. *Surg Rounds* 1999; 22:552-556.
8. Abu-Dalu J, Ugra I. Incarcerated inguinal hernia with a perforated appendix and periappendicular abscess. *Dis Colon Rectum* 1972; 15:464-465.
9. Sunil S Bhide, Amyand's Hernia. *Indian Journal of Pediatrics*, 2009; 76:854-5
10. Flood L, Chang KH, McAnena OJ, A rare case of Amyand's hernia presenting as an enterocutaneous fistula, *Journal of Surgical Case Reports*, 2010 7:6
11. Sofia Anagnostopoulou, Dimitrios Dimitroulis, Theodore G Troupis, Maria Allamani, Alexandros Paraschos, Antonios Mazarakis et al. Amyand's hernia: A case report, *World J Gastroenterol* 2006 12(29): 4761-4763.
12. Logan MT, 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; 67:628-9