CASE REPORT

AMYAND'S HERNIA: A CASE REPORT

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ABSTRACT: The presence of vermiform appendix in inguinal hernia is rare and is known as Amyand's hernia. We report an Amyand's hernia, where the appendix was found in a right inguinal hernia. The patient was a 55-years old man with right inguino scrotal mass for last 3 years. In the operating room, the hernia sac was opened which included appendix that is called Amyand's hernia. The patient underwent appendicetomy with Lichtenstein hernioplasty.

KEYWORDS: Amyand'hernia, a rare case report.

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 intra - abdominal 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 55-years old man with right inguino scrotal mass for last 3 years to surgery out-patient department, Government general hospital, Kakinada. He complained of occasional history of pain, and irreducible swelling. He had no fever, vomiting. On physical examination right sided inguinal hernia which was irreducible but not strangulated was noticed. His vital signs were normal. General examination was normal. The laboratory data were within normal limit. Digital rectal examination was normal.

Surgical operation was planned with the preoperative diagnosis of right inguinal hernia. After antibiotic prophylaxis, spinal anaesthesia administered and an incision was made in the skin crease of right inguinal region. The deep fascia was opened and external oblique aponeurosis identified and parted to reveal the spermatic cord. Indirect hernial sac was identified and isolated all around. On opening the hernial sac, the appendix was found to be lying with adhesions.(Figure 1). So, we performed appendicetomy, Hernioplasty was done with Lichtenstein repair. Post operatively patient was managed by antibiotics. Post-operative recovery is uneventful.

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Fig. 1: Intraoperative photo showing appendix with in the indirect sac

Fig. 2: Appendix being dissected from sac

Fig. 3: Appendicectomy specimen

DISCUSSION: An external hernia is an abnormal protrusion of intraabdominal tissue through a fascial defect in the abdominal wall. About 75% of hernias occur in the inguinal region and hernial sac may contain different intraabdominal organs such as omentum and small bowel. The bladder, a Meckel's diverticulum (Littre's hernia), or a portion of antimesenteric wall of small intestine (Richter's hernia) can also be encountered as unusual contents. The last two of the above are well-known even by their eponyms in standard textbooks and teaching practice. Amyand's hernia remains relatively unknown despite having been first reported nearly 270 years ago.

The term Amyand's hernia refers to the presence of the appendix within the hernia sac. The incidence of having a normal appendix within an inguinal hernia sac is about 1%, whereas only 0.1% of all cases of appendicitis present in an inguinal hernia.⁵ Solecki et al observed that acute appendicitis was found in 0.62% of groin hernia sac.^{6,7} Gurer et al has reported that appendix was found in 0.51 %, and acute appendicitis was found in 0.1 % of groin hernia sac.^{8,9} Amyand hernia usually occurs on the right side, probably as a consequence of normal anatomic position of the appendix. On the other hand, right-sided inguinal hernias are more common than left-side inguinal hernias.

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However, Amyand's hernia has also been reported located on the left side which may be associated with situs inversus, intestinal malrotation or mobile caecum. The pathophysiology of Amyand's hernia is still controversial. The reason of inflammation of the appendix in the incarcerated or sliding inguinal hernia may be because of the incarceration itself. The obstruction of the mesoappendix may occur because of the elevation of intraabdominal pressure due to abdominal muscle spasms or the adhesions in chronic hernia. This will cause abnormal bacterial colonization in the appendix and subsequently acute appendicitis may occur.^{8,9}

It is not easy to make a clinical diagnosis of an Amyand's hernia preoperatively. In most of the cases, it is considered as an incarcerated hernia and so operated in emergency. At laparotomy, an appendix is identified when the hernia sac is opened. Preoperative computed tomography (CT) of the abdomen may be helpful for making the correct diagnosis. If the diagnosis established by CT it is possible to treat Amyand's hernia with laparoscopically.¹⁰ But it is not our routine practice to subject the patient to CT after making a diagnosis of a complicated hernia.^{10,11} In our case the diagnosis was made intraoperatively. The treatment of hernial appendicitis is appendectomy through the herniotomy with primary hernia repair through the same incision. However, the approach to Amyand's hernia involving a noninflamed appendix is controversial. Priego et al. consider that even when the appendix has no gross inflammation signs, appendectomy should be performed in all cases, since surgery is not more complicated and, even in the absence of macroscopic inflammation, the presence of microscopic inflammation from compression and ischemia within the hernia sac cannot be ruled out.

On the other hand, the risk of wound infection and subsequent recurrence of the hernia remain a cause of concern if the appendix is removed.¹² Therefore, some authors suggest that the presence of a normal appendix does not require appendectomy. The use of mesh for hernia repair in a contaminated wound is open for debate. It is generally accepted that mesh should not be used in the repair of contaminated abdominal wall defects, because prosthetic material can increase the inflammatory response and result in an increased incidence of wound infection and possible appendiceal stump fistula.^{12,13}

Therefore, Logan et al, and Solecki et al. reported that they did not use mesh in their cases who had gangrenous appendicitis, instead they performed conventional herniorrhaphy. Priego et al, studied 6 cases of incarcerated crural hernia with vermiform appendix inside. In all cases they performed appendectomy via the hernia sac. They used mesh in three cases. Postoperative course of five of their cases was uneventful, but one patient developed wound infection in whom a prosthetic material was used. However, Saggar et al., reported that they used a mesh in their case with a right-sided incarcerated inguinal hernia without any untoward sequelae. They stated that the use of mesh would not have been prudent if the appendix had been gangrenous or there had been peritonitis. With wound drainage and judicious use of antibiotics they did not observe any postoperative complications related with the prosthetic material used. Associated intra-abdominal abscesses, if present, may be dealt with, either percutaneously or by open drainage.^{12,13} In our case, there was no gangrenous appendix or signs of peritonitis were present, so we proceeded with appendectomy with Lichtenstein mesh repair.

CONCLUSIONS: In conclusion Amyand's hernia is a rare entity which is hard to diagnose preoperatively. The diagnosis mostly depends on clinical judgement, and should be considered in

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elderly patients presenting with an incarcerated or strangulated hernia. Mostly diagnosis can only be made during the operation. Treatment involves appendicectomy through the herniotomy with hernia repair. However, the approach to Amyand's hernia involving a non-inflamed appendix is still controversial.

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. Hutchinson R. 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: 424-425.
6. Ozturk E, Galip G, Yilmazlar T. Amyand Hernia. *Journal of Uludag University Medical Faculty* 2004; 30: 225-226.
7. Priego P, Lobo E, Moreno I, et al. Acute appendicitis in an incarcerated crural hernia: analysis of our experience. *Rev Esp Enferm Dig*. 2005; 97: 707-15.
8. Solecki R, Matyja A, Milanowski W. Amyand's hernia: a report of two cases. *Hernia* 2003; 7: 50-1.
9. Gurer A, Ozdogan M, Ozlem N, et al. Uncommon content hernia sac. *Hernia* 2006; 10: 152-8.
10. Luch JS, Halpern D, Katz DS. Amyand's hernia: prospective CT diagnosis. *J Comput Assist Tomogr* 2000; 24: 884-6.
11. Logan MT, Nottingham JM. Amyand's hernia: a case report of an incarcerated and perforated appendix within an inguinal hernia and review of literature. *Am Surg* 2001; 7: 628–629.
12. Saggar VR, Singh K, Sarngi R. Endoscopic total extraperitoneal management of Amyand's hernia. *Hernia* 2004; 8: 164-165.
13. Vermillion JM, Abernathy SW, Snyder SK. Laparoscopic reduction of Amyand's hernia. *Hernia* 1999; 3: 159–160.

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