Original Article

APPENDIX AS THE CONTENT: A RARE PRESENTATION – AMYAND'S HERNIA

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Abstract

About 75% of abdominal wall hernias are inguinal hernias, with a lifetime risk of 27% for males and 3% for women. Amyand's hernia is an uncommon disorder in which an inguinal hernia sac contains a vermiform appendix. In the paediatric population and in men, it is most often observed. There have only been 228 known cases of the Amyand's hernia since Claudius Amyand's initial case was published in 1736. The clinical appearance, treatment, and complications of the illness are yet unknown because of its rarity. Although Amyand's hernia's appearance can be extremely diverse, it often manifests as an imprisoned or strangulated hernia. We describe a case that looked similar but was actually a right inguinal hernia.

Keywords: Amyand's hernia; Inguinal mass; Inguinal hernia; Appendix.

Introduction

About 75% of abdominal wall hernias are inguinal hernias, with a lifetime risk of 27% for males and 3% for women [1]. According to reports, 1% of inguinal hernias are Amyand's hernias [3, 6]. A 11-year-old kid with an Incarcerated Inguinal Hernia with a perforated appendix was originally documented in 1736 by Cladius Amyand (1660–1740) [1]. Regardless of the state of the vermiform appendix (normal, inflamed, perforated, or gangrenous), the term "Amyand's hernia" is employed.

It is most prevalent in Males and Paediatrics population. There have only been 228 documented cases of Amyand's hernia between 1736 and 2017 (Amyand's first case was reported in 1736) [2]. The clinical appearance, pathogenesis, and risk factors of the illness are yet unknown because of its rarity. Here is a similar case of swelling in the right inguinal region presenting as hernia and content being appendix.

Case Report:

A 34 years /Male came with complaints of swelling in the right groin extending upto the base of the scrotum since 2 years initially small in size, gradually progressing and pain over the swelling since 2 months without any constitutional symptoms. Swelling was Partially reducible on lying down and on manual reduction.

On Physical examination, a swelling of 6*3 cm present over the right inguinal region extending upto the root of the scrotum with mild tenderness, partially reducible on taxis , granular in consistency . All the laboratory investigations were within normal limit.

Ultrasonography Abdomen & Pelvis suggestive of no abnormality detected.

Ultrasonography Inguino-Scrotum suggestive of right sided funiculitis with defect size 15 mm and bowel and omentum as the content. With clinical and radiological findings along with the necessary written consents and pre anaesthetic check-up, patient was planned for surgery and was explored with usual steps of inguinal hernia repair.

Intra-operative findings: Indirect Sac identified, opened to check for the content, a tubular structure with blind ending with omental adhesions at the blind end was found, after releasing the adhesions structure identified was an uninflamed Appendix confirmed by the presence of converging of Taenia coli at the base along with mesoappendix. This tubular structure i.e Appendix was of approximately 6cm in length and outer wall-wall diameter of approximately 8mm i.e Amyand's hernia **(Figure 1**) following which appendicetomy was done, followed by deep ring strengthening and meshplasty.

Specimen **(Figure 2)** was sent for Histo-pathological examination which suggested of Acute on Chronic appendicitis.

Post–Operative Patient was kept Nil per oral for 24 hrs, then resumed full diet gradually and did full recovery with no complication and was discharged on Post operative day- 5.

Discussion:

The individual in this case was planned with usual steps of inguinal hernia repair, underwent appendicetomy with Inguinal hernia repair and did full recovery and was discharged with no complication.

A pre-operative diagnosis of Amyand's hernia just based on clinical and ultra-sonography is relatively difficult as it an unusual finding and alone depends on the proficiency of the clinician and the operator. According to a comprehensive study, Computed tomography is the only definitive diagnostic tool for patients with preoperative diagnoses [13].

For Amyand's hernias, there is no set course of therapy [3–11]. There is substantial debate over how preventive appendectomy should be handled and whether mesh should be utilised while repairing Amyand's hernias.

According to Losanoff and Basson, Amyand's hernias are categorized into four subtypes:

Type of hernia	Status of inguinal hernia	Surgical management
Type 1	Normal appendix	Reduction or appendectomy (depending on age), mesh hernioplasty
Type 2	Acute appendicitis with no abdominal sepsis	Appendectomy, primary no prosthetics hernia repair
Type 3	Acute appendicitis with abdominal and abdominal wall sepsis	Laparotomy, appendectomy, and primary no prosthetic hernia repair
Type 4	Acute appendicitis with abdominal concomitant pathology	Laparotomy, appendectomy, primary no prosthetic hernia repair, and management of concomitant disease

Amyand's hernias with a non-inflamed appendix are often treated with hernia surgery without appendectomy [14–16]. Because an appendectomy will turn a clean surgery into a clean-contaminated procedure, some physicians think that this will lessen the likelihood of postoperative problems.

Amyand's hernia repairs with mesh are appropriate in all circumstances [3-5, 8]. Many people hold the view that utilising mesh during hernia surgery in cases of inflammation or abscess increases the risk of wound infection, sepsis, fistula development, and recurrent hernias. Although some authors have reported using newer biologic meshes in instances of inflamed and perforated appendicitis without the development of infection [3, 7].

Conclusion:

The preoperative diagnosis of Amyand's hernia is still difficult since it is an uncommon kind of inguinal hernia. However, the definitive diagnosis should be done intraoperatively. Contrast Enhanced Computed Tomography Abdomen & Pelvis and Ultrasonography are important for the diagnosis. Based on the patient's health and the kind of Amyand's hernia, the appropriate course of therapy should be chosen. When the appendix is normal, tensionfree mesh hernioplasty should be done. An appendectomy should be done and the use of mesh repair should be carefully thought out if there is acute appendicitis in the hernia sac. Drainage and antibiotic usage in the surgical region need to be watched carefully. We continue to be cautious when applying mesh to hernia sacs with acute appendicitis, and more extensive research is needed to identify whether or not mesh repair increases the risk of infection.

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Figure 1 – Appendix as content of hernia sac.

Figure 2 – Showing Specimen of appendix with hernial sac.