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AMYAND HERNIA IN AN 80-YEAR-OLD MALE: A CASE REPORT AND REVIEW OF LITERATURE

General Surgery

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ABSTRACT

First described by Dr. Claudius Amyand in 1735 (1), Amyand Hernia is a rare disease with an incidence varying between 0.5% and 1%. Losanoff and Basson classified Amyand Hernia into four types (Table-1) to include treatment options - either reduction or appendectomy, depending on the patient's comorbidities. Amyand hernia is still mostly an intra-operative diagnosis as there are variable clinical presentations and most surgeons don't prefer pre-operative imaging in routine cases of inguinal hernia. We present a case of a NYHUS Type 3B inguinal hernia in an 80-y old male patient with a Type 1 Amyand hernia according to Losanoff and Basson's classification.

KEYWORDS

Amyand hernia, inguinal hernia, hernioplasty

INTRODUCTION

First described by Dr. Claudius Amyand in 1735 [1], Amyand Hernia is a rare disease with an incidence varying between 0.5% and 1%. [2] Complications like acute appendicitis, perforation or gangrene occur in less than 0.1% cases. [2] Losanoff and Basson's classification System clarifies the advocated surgical treatment selections for different kinds of Amyand's hernia.

We present a case of a NYHUS Type 3B inguinal hernia in an 80-y old male patient with a Type 1 Amyand hernia according to Losanoff and Basson's classification.

CASE STUDY

Patient Information

An 80-year-old male presented to the OPD of surgery department with complaint of a swelling in the right inguinoscrotal region for the past 20 years with history of pain & irreducibility of the swelling for one week. There was no history of abdominal pain, nausea, vomiting, difficulty in passing flatus or feces. The patient had an associated history of BPH for which he was on medical management.

Clinical Examination

The patient had a BMI of 26.4, with normal vital signs. Abdomen was soft and tender. Examination of the CNS, CVS add respiratory systems was within normal limits. On local examination, the patient had a right sided complete irreducible inguinal hernia with components of both direct and indirect inguinal hernia on deep ring occlusion and Ziemann three finger test with no localized tenderness or other signs of inflammation.

Investigations

Patient was clinically diagnosed as a case of irreducible right inguinal hernia. Routine and preoperative blood work-up was within normal limits.

Interventional Procedure

The patient was planned for open right inguinal hernioplasty under regional anaesthesia. After spinal anaesthesia was administered, it was possible to reduce the hernia. Intraoperatively, an indirect inguinal hernia sac with a patulous deep inguinal ring with a posterior wall defect was found. On exploration of the hernia sac, it was found to contain the vermiform appendix (Figure-1). The appendix showed no signs of inflammation but was adhered to the wall of the sac. An appendectomy with excision of hernia sac with posterior wall repair with polypropylene mesh placement was done.

Post Operative Period

Patient had an uneventful post operative period and was discharged on POD-4.

Follow Up And Outcomes

The patient was called to follow up 7 days post discharge. The operative site was healthy and there were no fresh complaints-localized or systemic- on follow-up. The histopathology report for the specimen sent showed normal appendix with no sign of inflammation.

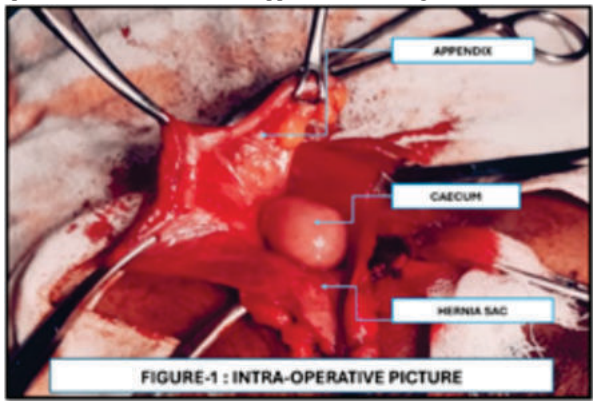

FIGURE-1 : INTRA-OPERATIVE PICTURE

DISCUSSION

Table 1 - Pathological Types Of Amyand's Hernia And Their Respective Management According To Losanoff And Basson. [3]

Type of hernia	Salient features	Surgical management
1	Normal appendix	Reduction or appendectomy (depending on age), mesh hernioplasty
2	Acute appendicitis localized in the sac	Appendectomy through hernia, endogenous repair
3	Acute appendicitis, peritonitis	Appendectomy through laparotomy, endogenous repair
4	Acute appendicitis, other abdominal pathology	Appendectomy, diagnostic workup and other procedures as appropriate

Amyand's hernia (AH) was first described by Claudius Amyand in 1735. Losanoff and Basson classified Amyand Hernia into four types (Table-1) to include treatment options - either reduction or appendectomy, depending on the patient's comorbidities.[3] The Losanoff and Basson classification was further modified by Rikki to include presence of appendix in incisional hernias.[4] This condition represents approximately 0.1% of all appendicitis cases. In some instances, an appendectomy may be performed alongside a hernioplasty as a preventive measure against potential future complications that could lead to appendicitis. Amyand's hernia has been reported in patients aged 03 weeks to 92 years, with a threefold greater likelihood of being diagnosed in children than in adults. [5] Although In majority of the cases of Amyand's hernia reported, the

diagnosis is made intra-operatively, pre-operative diagnosis can be done using CT scan of abdomen and pelvis. The CT imaging of an Amyand hernia would typically show a blind-ending tubular structure arising from the caecum and extending into the inguinal sac with findings such as a dilated lumen, wall enhancement and thickening, and peri-appendiceal fat stranding suggesting acute appendicitis. This modality is seldom used though as inguinal hernia is a clinical diagnosis and usually does not warrant pre-operative imaging specially in low resource settings. Management of Amyand hernia is still controversial and varies from surgeon to surgeon, especially if the appendix is not inflamed.

Table 2 - Rikki's Modification of Losanoff and Basson Classification [4]

Classification	Description	Surgical management
Type 1	Normal appendix within an inguinal hernia	Hernia reduction, mesh repair, appendectomy in young patients
Type 2	Acute appendicitis within an inguinal hernia, no abdominal sepsis	Appendectomy through hernia, primary repair of hernia, no mesh
Type 3	Acute appendicitis within an inguinal hernia, abdominal wall, or peritoneal sepsis	Laparotomy, appendectomy, primary repair of hernia, no mesh
Type 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
Type 5a	Normal appendix within an incisional hernia	Appendectomy through hernia, primary repair of hernia including mesh
Type 5b	Acute appendicitis within an incisional hernia, no abdominal sepsis	Appendectomy through hernia, primary repair of hernia
Type 5c	Acute appendicitis within an incisional hernia, abdominal wall, or peritoneal sepsis or in relation to previous surgery	Manage as type 4

CONCLUSIONS

Amyand hernia is still mostly an intra-operative diagnosis as there are variable clinical presentations and most surgeons don't prefer pre-operative imaging in routine cases of inguinal hernia. Thorough examination of the hernia sac contents should be done before ligation to ensure not missing such diagnosis.

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