Complicated Amyand's Hernia in a Female Patient

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Introduction

- Amyand's hernia (AH) is characterized by the presence of the vermiform appendix within an inguinal hernia sac.[1]
- Contraction of the abdominal wall causes compression of the appendix and subsequent lumen obstruction, leading to inflammation and infection.[2]
- Male sex is the most influential risk factor, as over 90% of AH are seen in men.[3]
- AH are exceptionally rare, constituting only 0.14-1.3% of all inguinal hernia cases.[4-8]
- Of these herniated appendices, there is only a 0.07-0.13% likelihood of acute appendicitis occurring.[4-8]
- Against this backdrop, encountering a female patient with Amyand's hernia and perforated appendicitis becomes an exceptionally unique clinical scenario.

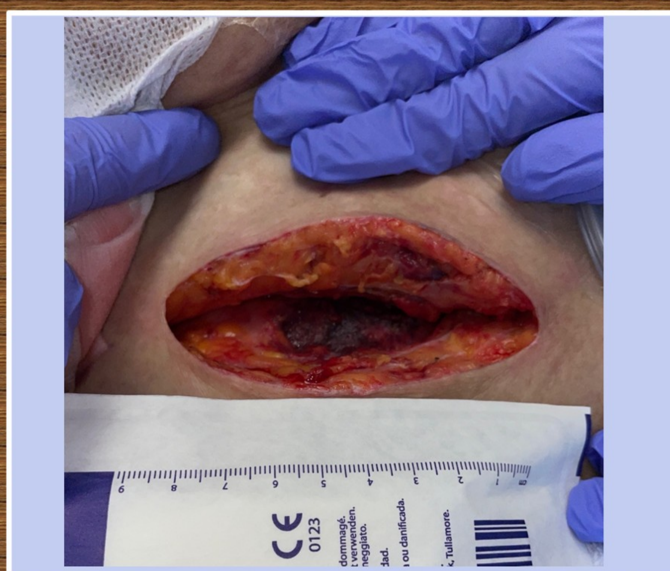
History of Present Illness

- A 78-year-old Caucasian female presented to the emergency department with two weeks of right lower quadrant (RLQ) abdominal pain as well as a RLQ mass for one month
- Intermittent nausea and decreased appetite secondary to abdominal pain with food consumption
- The patient denied changes in bowel habits, emesis, recent weight loss, fever, chills, shortness of breath or chest pain
- Past medical history significant for diabetes mellitus type 2, hypothyroidism, lymphocytic leukemia, rheumatoid arthritis, immune thrombocytopenic purpura, osteoporosis
- Family and social history non-contributory

Physical exam

Vitals: Within normal range
General: Frail malnourished cachectic female in no acute distress, alert and oriented x4
Skin: warm and dry, no rashes or wounds
Lungs: clear and equal breath sounds bilaterally
Cardiovascular: Normal sinus rhythm
Abdominal: Non-distended, soft and moderately tender over RLQ, Firm non-reducible RLQ mass with no overlying cutaneous erythema, normoactive BS
Extremities: no peripheral edema, warm and well perfused

Fig. 2 Post-surgical wound



Diagnostic Testing

Computed Tomography (Figure 1)

- Fluid collection in RLQ 7x6x3cm, abnormally dilated and thick-walled appendix extending from the cecum into hernia.
- The appendix is perforated with the tip in the anterior abdominal wall and adjacent hernia.

Labs

- CBC demonstrated pancytopenia
- CMP WNL

Fig 1. Abdominal Computed Tomography

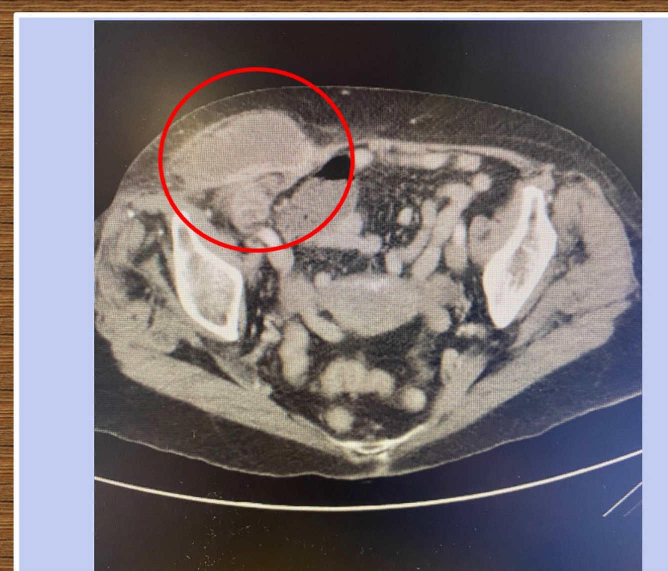


Table 1. Losanoff-Basson classification & management of Amyand's hernia[9]

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

Management and Outcome

- The patient underwent an emergency laparotomy with appendectomy and drainage of inguinal canal abscess.
- The first incision was made over the inguinal mass to drain and wash out the inguinal abscess prior to entering the peritoneum.
- The second incision was made over the midline to perform the appendectomy.
- The floor of the inguinal canal was closed with suture. No mesh was placed.
- The patient tolerated the procedure well.
- The patient was discharged with a wound VAC after six days in the hospital.

Discussion

- Amyand's hernias with complicated appendicitis is a unique finding, especially in a female patient.[4-8]
- Providers should recognize that the appendix can perforate and be contained within the hernia sack, masking peritoneal signs.[3]
- Traditional indicators of acute appendicitis, such as anorexia, rebound tenderness, and leukocytosis, may not manifest in a typical fashion.[3]
- The method for AH repair largely depends on the level of contamination in the inguinal canal. See Table 1 for Losanoff-Basson Classification.[9]
- In this patient, due to the degree of contamination, no mesh was used in the repair of the inguinal canal.

References

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