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.⁴⁻⁵
- Of these herniated appendices, there is only a 0.07-0.13% likelihood of acute appendicitis occurring.⁶⁻⁸
- 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

Vitals: Within normal range
General: Frail malnourished cachectic female in no acute distress, alert and oriented x 4
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

Physical exam

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

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.

Table 1. Losanoff-Basson classification & management of Amyand’s hernia

<table>
<thead>
<tr>
<th>Type of Hernia</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salient Features</td>
<td>Normal appendix</td>
<td>Acute appendicitis localized in the sac</td>
<td>Acute appendicitis, perforitonitis</td>
<td>Acute appendicitis, other abdominal pathology</td>
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<tr>
<td>Surgical Management (depending on age), mesh hemioplasty</td>
<td>Appendectomy through hernia, endogenous repair</td>
<td>Appendectomy through laparotomy, endogenous repair</td>
<td>Appendectomy, diagnostic workup and other procedures as appropriate</td>
<td></td>
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</tbody>
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Discussion

- Amyand’s hernias with complicated appendicitis is a unique finding, especially in a female patient.⁹⁻⁻⁻¹¹
- 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