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Acute appendicitis presenting as an abdominal wall abscess: A case report

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ABSTRACT

INTRODUCTION: Amyand hernia (AH) is a rare type of hernia characterized by the presence of appendix vermiformis in the inguinal hernial sac. It is rarely reported in women.
PRESENTATION OF CASE: We presented a case of a 60- year old woman who was admitted initially with an abdominal wall abscess and found to have perforated appendix in the right inguinal hernia. The patient underwent standard open appendectomy and the post-operative course was uneventful.
DISCUSSION: The initial presentation of our case as an abdominal wall abscess is rare in the contemporary literature.
CONCLUSIONS: A high index of suspicious, early diagnosis and timely surgical intervention are the keys to have favorable outcome in amyand hernia. The management should follow general guidelines of appendectomy, hernia repair and dealing with the associated pathology if present.

1. Introduction

The name Amyand's hernia (AH) is an eponymous disease named after an English surgeon Claudius Amyand. The hernia is characterized by the presence of appendix vermiformis in the inguinal hernial sac [1,2]. The incidence of AH is estimated as 1% of all inguinal hernias [3]. Although the incidence is rare, the appendix may become incarcerated in AH which may lead to further complications such as strangulation and perforation [4]. Appendicitis in AH accounts for 0.1% of all appendicitis cases [5]. The clinical picture of AH depends on whether the appendix is inflamed only or there is a perforation along with an inflammation. AH occurs mostly in males [6], adults, older children and infants [7]. We report a rare case of perforated appendix in the right inguinal hernia in a 60 year old woman presented with abdominal wall abscess. Standard open appendectomy was performed and the post-operative course was uneventful. A thorough literature review was conducted as well. This work has been reported in line with the consensus-based surgical case report (SCARE) guidelines [8].

2. Case presentation

A 60-year old woman known to have diabetes, hypertension, dyslipidemia, morbid obesity and chronic obstructive pulmonary disease presented to the emergency department (ED) with a 3-week history of vague abdominal pain on the right side of the abdomen. The severity of abdominal pain had increased over 3 days prior to the index admission, and was associated with fever. There was no past history of surgical intervention.

The initial physical examination revealed high body temperature of 38.5 °C, diffuse abdominal tenderness on the right side of the abdomen extending from right inguinal region up to the right flank along with erythema and fluctuation. The findings were in favor of abdominal wall abscess. Laboratory findings showed elevated blood sugar of 17.5 mmol/L. white cell count (13.8×10^9/L), low hemoglobin (10.7 g/L), and normal platelet count ($235\ 10^9$/L), urea (6.05 mmol/L) and bilirubin (16.1 μmol/L). Fig. 1(A&B) shows ultrasound findings.

The patient was taken to the operating room. Under general anesthesia the abscess cavity on the right side of abdominal wall was opened with an oblique incision in the subcutaneous tissue to expose the abscess cavity. There was a considerable amount of pus but the cavity was seen communicating with the inguinal canal forming an inguinal abscess. The incision was extended towards the inguinal canal for proper exposure and drainage. On opening the inguinal canal, there was small bowel along with cecum, and

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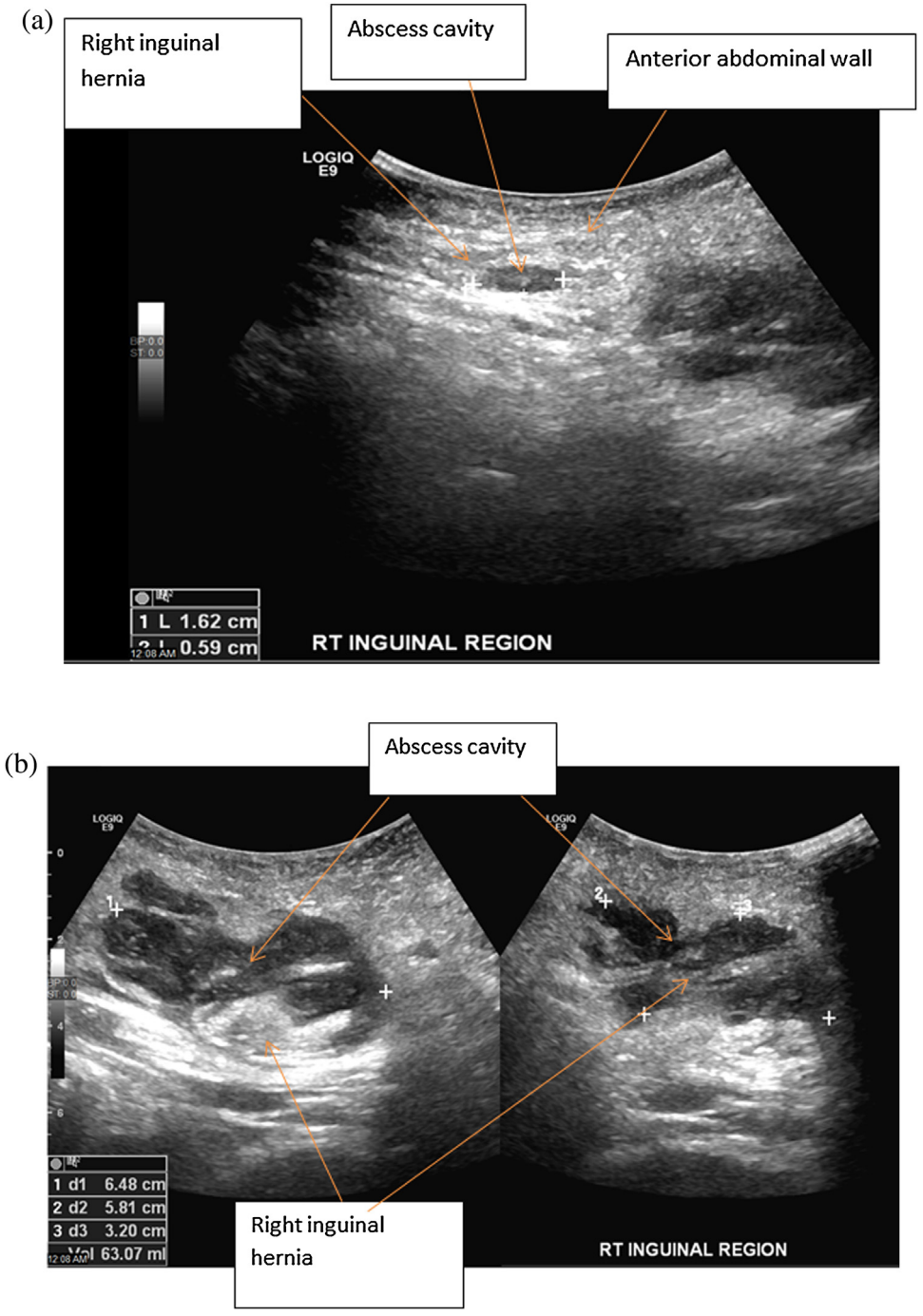

Fig. 1. (A&B): Abdominal ultrasound showing the abdominal abscess and inguinal hernia.

severely inflamed appendix with obvious perforation. The inguinal canal was completely opened and the abdominal cavity in the right iliac fossa was explored through it. There were no signs of abscess or collection deep in the abdominal cavity. Fig. 2(A&B) shows the intraoperative findings.

A standard open appendectomy was done. The peritoneum and inguinal canal were closed, we used proline suture without mesh.

The abdominal wall wound was thoroughly washed and packing was done for closure on secondary intention later. Due to the multiple co-morbid conditions, the patient was shifted to surgical intensive care unit for monitoring and kept on regular intravenous antibiotics. She was kept on daily wash of the abscess cavity. Over a period of 3 weeks there was good granulation tissue. Later on, the patient was discharged in a stable condition and followed up in outpatient clinic.

3. Discussion

Amyand's hernia (AH) is rare in females and only few case reports are available in the literature. The initial presentation of our case as an abdominal wall abscess is very rare in the contemporary literature. AH is usually an intraoperative finding and its management depends on the status of appendix in the hernia. Some authors favor performing appendectomy for a normal appendix found in AH as it increases the risk of contamination of a clean surgery, i.e. inguinal hernia repair [9,10]. But in the case of inflamed