INCARCERATED ACUTE APPENDICITIS WITHIN A VENTRAL HERNIA DEFECT

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INTRODUCTION

Incarcerated acute appendicitis within a ventral hernia defect is rare yet poses a clinical challenge regarding diagnosis and management. We describe a 70-year-old male with a history of atrial fibrillation (Afib) on Eliquis, renal cell carcinoma (RCC) s/p left nephrectomy, Hypertension (HTN), Hyperlipidemia (HLD), and inguinal hernia repair, who presented with incarcerated appendicitis within a ventral hernia defect.

CASE PRESENTATION

A 70-year-old male with a previous history above presented to the emergency department with 1-day of sharp, right hemi-abdominal pain without aggravating or relieving factors. He denied fever, chills, or changes in bowel movements or urination. He was hemodynamically stable with appropriate vital signs. His abdominal examination showed a well-healed supra-umbilical incision, right upper quadrant, and peri-umbilical tenderness, without evidence of peritonitis. There was an irreducible bulge without skin changes. Initial laboratory workup showed leukocytosis with left shift and elevated creatinine. A computed tomography (CT) scan was initially suspicious for an incarcerated ventral hernia likely containing a loop of bowel with adjacent fat stranding. He was admitted, kept nil per os, intravenous fluids given, antimicrobial coverage initiated, and anticoagulation held. Operative management was strongly recommended.

TREATMENT/OUTCOME

The patient underwent surgery within the next 48 hours of admission. A laparoscopic approach was used to enter the abdominal cavity which revealed an inflamed and distended appendix with purulence and fibrinous exudates incarcerated within a 3-centimeter umbilical hernia defect. The appendix was carefully dissected free from the hernia defect, and an appendectomy was performed. The hernia defect was not closed due to concerns about intra-abdominal infection.

The patient's postoperative course was uneventful, with gradual improvement in abdominal pain and resolution of symptoms. He was started on a regular diet, and he was discharged home on postoperative day 1 with follow-up instructions, durations of antibiotics, and resumption of anticoagulation.

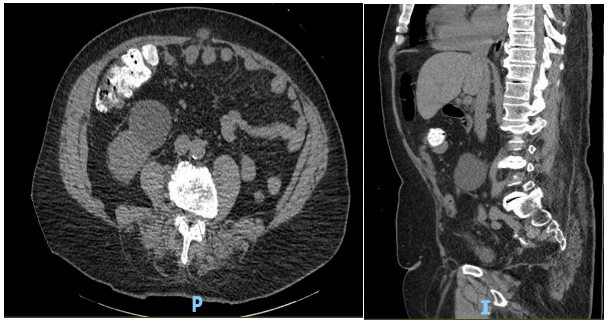


Fig. 1. CT images of appendix entering hernia defect with surrounding fat stranding

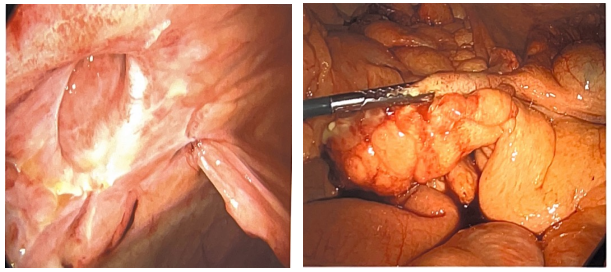


Fig. 2. Laparoscopic view of inflamed appendix and hernia defect

DISCUSSION

The presence of the appendix within an inguinal hernia is termed an Amyand's hernia, first described by Claudius Amyand in 1735. Vice versa, the presence of an appendix within a ventral hernia is infrequent. Patients with ventral hernias are at increased risk for complications such as bowel obstruction, strangulation, and incarceration. The presentation of incarcerated acute appendicitis in this context often delays diagnosis as the clinical presentation may differ from the classical presentation of appendicitis. Imaging modalities such as CT scans may help provide a diagnosis however, operative intervention can be superior in diagnosis and therapeutic intervention. The management can be complicated by patient comorbidities, hemodynamic status, and the degree of contamination. Laparoscopic appendectomy has routinely become the mainstay treatment for acute appendicitis, especially in an uncomplicated case. Most cases of complicated appendicitis are now managed nonoperatively, with an antibiotic regimen and abscess drainage when indicated. In elderly patients with multiple comorbidities, such as A-fib and a history of cancer, careful perioperative management is essential. This includes balancing the risks of anticoagulation therapy, ensuring adequate renal protection, and preventing postoperative complications.

CONCLUSIONS

This case highlights the rare occurrence of incarcerated acute appendicitis within a ventral hernia defect in a 70-year-old man with a complex medical history. It underscores the need for prompt diagnosis, and careful surgical planning to manage such cases effectively. This report contributes to the understanding of uncommon surgical emergencies and provides insights into prompt management of patients with atypical presentations.

No conflict of interest to disclose.