

WHEN APPENDICITIS MASQUERADES: SMALL BOWEL OBSTRUCTION FROM A PERFORATED APPENDIX

INTRODUCTION

- Small bowel obstruction (SBO) is a common surgical emergency, most often caused by adhesions, hernias, or malignancy.
- Acute appendicitis typically presents with right lower quadrant (RLQ) pain and signs of systemic inflammation.
- Rarely, perforated appendicitis can cause a mechanical SBO via inflammation, abscess, or phlegmon formation, creating a localized transition point.
- This uncommon presentation is a diagnostic challenge, especially in elderly or medically complex patients where delays can worsen outcomes.



Axial View:

- This image demonstrate markedly dilated loops of small bowel with prominent air-fluid levels, confirming the presence of a significant small bowel obstruction



Coronal View:

- This view reveals the underlying cause. The red arrow points to a calcified appendicolith in the right lower quadrant, surrounded by inflammatory changes. This perforated appendicitis was the source of the mechanical obstruction.

CASE PRESENTATION

- Patient: 74-year-old male with past medical history of atrial fibrillation on apixaban, coronary artery disease s/p CABG, ICD placement, and diabetes mellites.
- Presentation: intermittent abdominal pain, nausea, and vomiting consistent with obstructive symptoms.
- Imaging: CT revealed perforated appendicitis with appendicoliths causing a small bowel obstruction at a transition point in the RLQ.
- Preoperative management:
 - Nasogastric tube placed for decompression
 - Apixaban reversed with prothrombin complex concentrate (PCC).
- Procedure: diagnostic laparoscopy with laparoscopic appendectomy and copious peritoneal washout.
- Intraoperative findings:
 - Purulent peritonitis with multiple abscesses in the RLQ and pelvis.
 - A gangrenous, perforated appendix was identified as the source.
 - Small bowel dilation was noted proximal to the inflammatory mass in the RLQ.
- Postoperative course:
 - Complicated by ventricular tachycardia requiring vasopressors and amiodarone.
 - Return of bowel function on POD 3.
 - Discharged home in stable condition on POD 8.

DISCUSSION

- Perforated appendicitis is a rare but important cause of mechanical SBO, often missed on initial evaluation.
- The obstruction results from extrinsic compression and localized inflammation from an appendiceal phlegmon or abscess, most commonly affecting the terminal ileum.
- A high index of suspicion is required in elderly or comorbid patients who may present with atypical or primarily obstructive symptoms rather than classic appendicitis.
- CT imaging is the diagnostic modality of choice, as it can simultaneously identify both the SBO (dilated loops, transition point) and the underlying appendiceal pathology.
- Minimally invasive surgery offers a safe and effective approach for definitive diagnosis, source control, and washout, even in high-risk surgical patients.

CONCLUSION

- Maintain a high index of suspicion doe perforated appendicitis in patients presenting with SBO, especially when a transition point is localized to the RLQ.
- Recognize atypical presentations in elderly and comorbid individuals, where obstructive symptoms may dominate the clinical picture.
- Utilize CT imaging promptly to confirm the diagnosis and guide timely operative management, which is critical to prevent complications like sepsis and prolonged ileus.
- Employ a multi-faceted perioperative strategy in high-risk patients, including anticoagulation reversal, vigilant cardiac monitoring, and minimally invasive techniques to optimize safety and outcomes.

REFERENCES

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