A CASE OF RECURRENT SMALL BOWEL OBSTRUCTION SECONDARY TO INTESTINAL TUBERCULOSIS

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Background

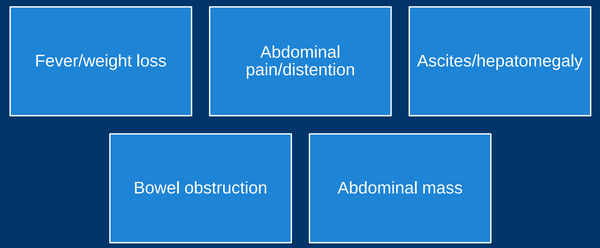
- Abdominal tuberculosis can present with involvement of the peritoneum, stomach, intestines, hepatobiliary tree, pancreas, and peri-anal area.
- While abdominal TB involves around 5% of cases of TB worldwide, abdominal TB is rare in the United States making diagnosis difficult.
- Delay in diagnosis may result in complications including perforation, abscess, and small bowel obstruction.

Case Presentation

- Patient is a 74-year old female from Myanmar with a history of tuberculosis and colorectal cancer s/p resection with colostomy presenting due to nausea, vomiting, and abdominal pain.
- Recently diagnosed with active TB a few days prior but had not yet started treatment.
- Previous small bowel obstructions in 2016, 2019, and 2023
- Recent stool test outpatient positive for TB
- Abdominal CT showed distended small bowel measuring up to 5.6 cm, air fluid levels throughout the abdomen, and a transition point in the lower posterior pelvis.
- NG tube was placed and patient was started on IV rifampin, levofloxacin, amikacin, and linezolid.
- Follow-up abdominal x-ray showed resolution of the small bowel obstruction and the patient was sent home on oral TB therapy.
- Two weeks following discharge, the patient presented with vomiting, abdominal pain, and distention.
- Abdominal x-ray was consistent with a small bowel obstruction with distention of the small bowel up to 4.8 cm in diameter.
- IV TB regimen was restarted with successful resolution of the small bowel obstruction.

Intestinal Tuberculosis should be included in the differential for recurrent small bowel obstruction, especially in patients from regions with a high prevalence of tuberculosis.

Symptoms of Abdominal Tuberculosis



Endoscopic and Histopathologic Findings of Intestinal Tuberculosis

Endoscopic Findings	• Transverse ulcers • Scars/fibrous bands • Inflammatory polyps • Destruction of ileocecal valve • Hyperemic nodules
Histology Findings	• Caseating granulomas • Acid fast staining • Ulcers with epithelioid histiocytes • Submucosal inflammation

Results

- Abdominal tuberculosis can present with a wide range of manifestations affecting the GI tract ranging from abdominal pain and diarrhea to perforation, abscess, and small bowel obstructions.
- Due to the rarity of intestinal tuberculosis in the US, misdiagnosis can delay initiation of treatment resulting in worsening outcomes.
- Patients with abdominal TB should be treated with anti-TB therapy in the same manner as that of pulmonary TB.
- Surgery may be indicated in patients presenting with complications including:
  - Perforation
  - Fistulas
  - Obstruction
- Patients presenting with multiple strictures may be less likely to respond to anti-tuberculous therapy and in certain instances, these medications worsen the obstruction.
- Intestinal tuberculosis may be difficult to diagnose as it can present similarly to pathologies such as intra-abdominal infection, IBD, or cancer.
- Misdiagnosis rates of intestinal tuberculosis have been reported to be as high as 50-70%, even in countries with a high prevalence of tuberculosis.

Conclusions and Clinical Implications

- Abdominal tuberculosis may present with a wide variety of manifestations throughout the gastro-intestinal tract making diagnosis difficult.
- Intestinal tuberculosis should be included in the differential for recurrent small bowel obstructions, especially in patients presenting from regions with a high prevalence of TB to prevent delays in initiation of anti-TB treatment.