A Deceptive Diagnosis: Gastric outlet obstruction in the setting of Disseminated Tuberculosis

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Introduction

- Gastric outlet obstruction is characterized by abdominal pain and vomiting. Benign etiologies include peptic ulcer disease, Crohn's disease, radiation exposure, and toxic ingestions. Malignant causes include gastric lymphoma, large neoplasms, and in rare cases, tuberculosis (TB)
- Primary abdominal tuberculosis is exceedingly rare and duodenal involvement occurs in only about 0.3 to 2.3% of patients with TB
- Even in parts of the world where TB is endemic, gastroduodenal tuberculosis accounts for only about 2% of disease burden

Case Presentation

- A 52 year-old male with history of HIV presented to the ED with complaint of intractable non-bloody vomiting and severe epigastric abdominal pain
- On admission, the patient was found to have a lactic acidosis of 3.4 with severe abdominal distention and oral intolerance. A nasogastric tube was placed for gastric decompression
- CT and MRI imaging revealed a conglomerate mesenteric nodal mass concerning for lymphoma. The mass was found to be compressing the horizontal segment of the duodenum resulting in a duodenal outlet obstruction

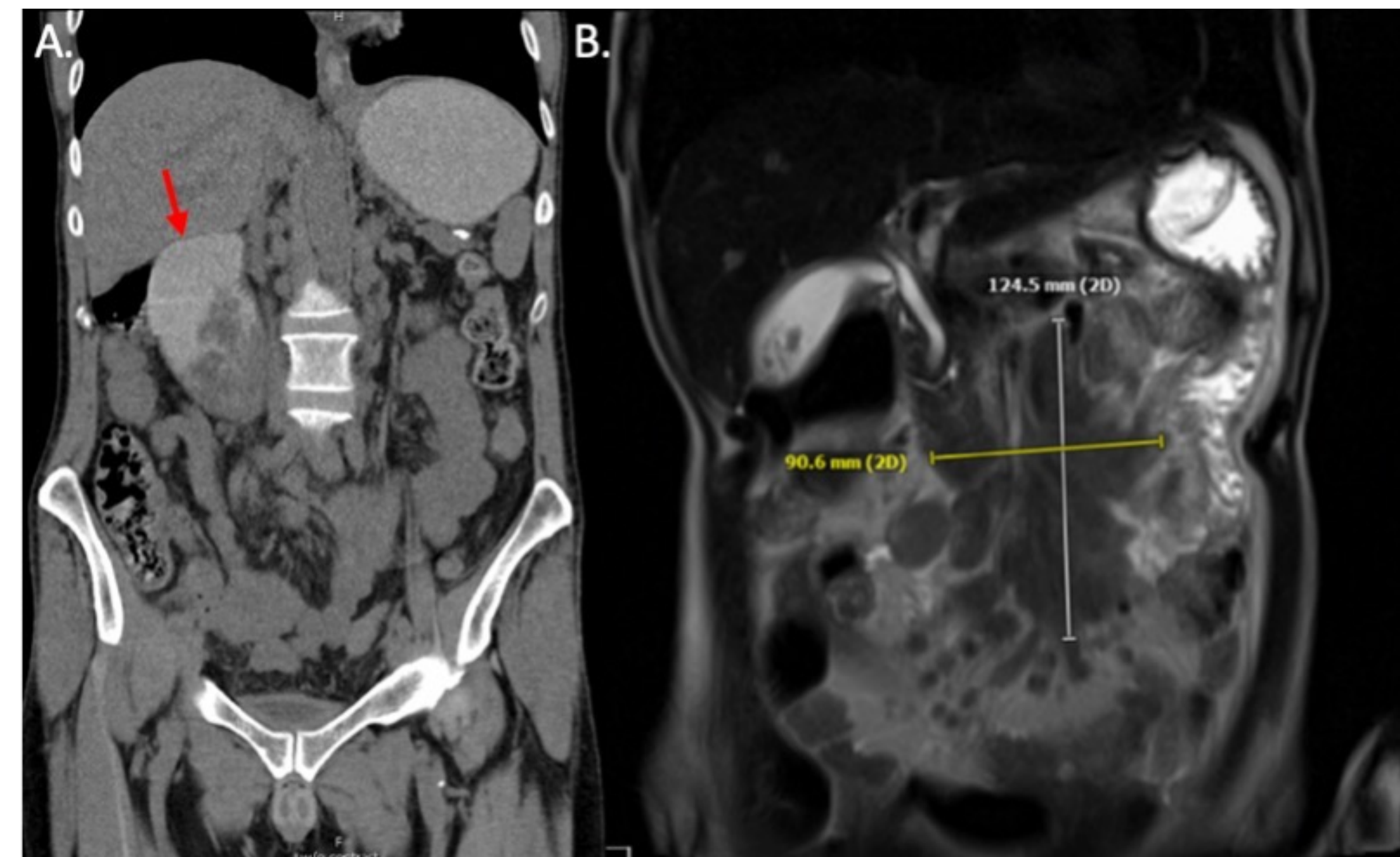

Figure 1 (A) Computed tomography and (B) Magnetic resonance imaging revealed a conglomerate mesenteric nodal mass concerning for lymphoma. The mass was found to be compressing the horizontal segment of the duodenum resulting in a duodenal outlet obstruction

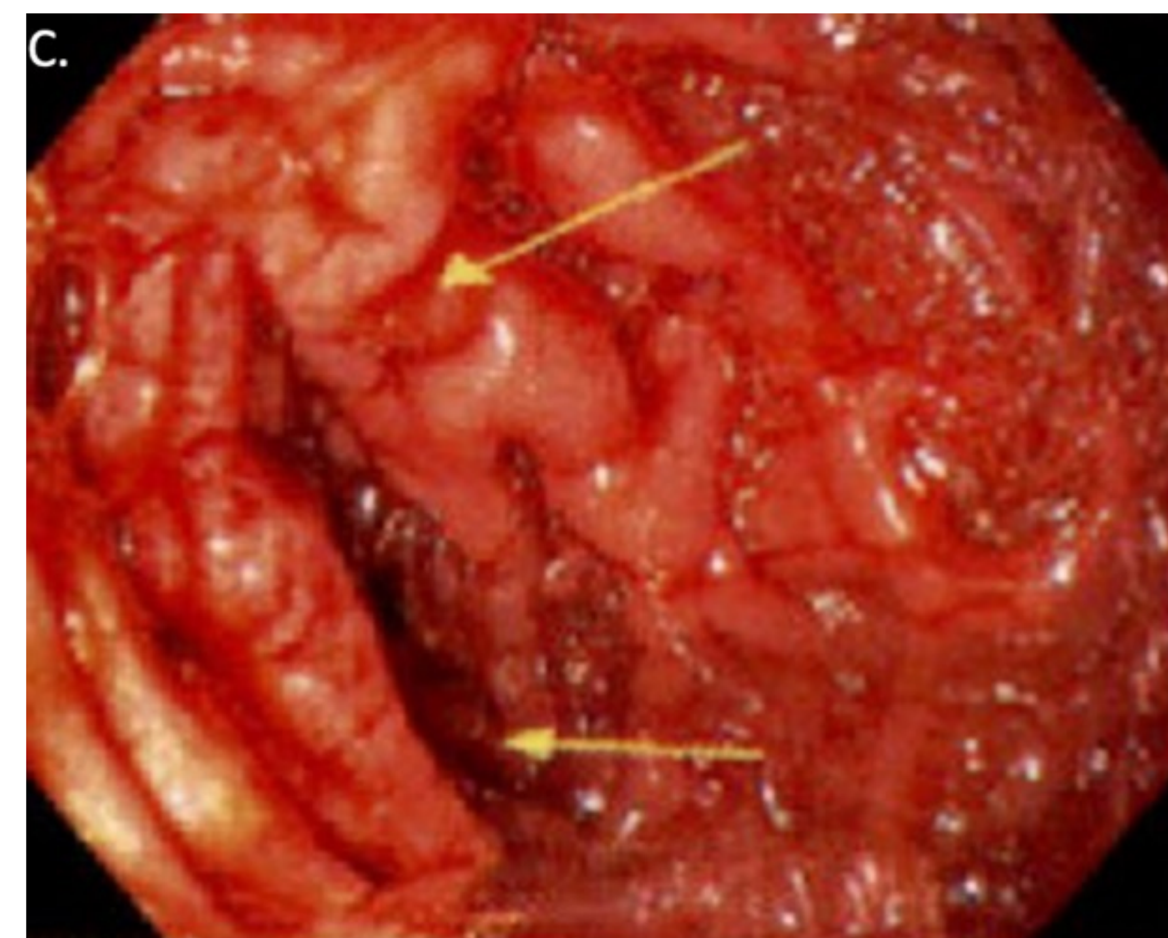

Figure 2 EGD revealed diffuse mucosal changes and moderate stenosis of the second portion of the duodenum.

Outcome

- Gastroenterology was consulted and performed an endoscopic ultrasound which revealed diffuse mucosal changes and moderate stenosis of the second portion of the duodenum
- Fine needle aspiration was positive for acid fast bacilli. Due to concerns for active pulmonary TB, the patient underwent bronchoscopy and bronchoalveolar lavage
- Cultures were positive for acid fast bacilli and positive nucleic acid amplification (NAA) testing for Mycobacterium tuberculosis. The patient was started on RIPE therapy.

Discussion

- Gastric outlet obstruction is an infrequently described presentation of TB and our case highlights the importance of having a high index of suspicion for disseminated TB, especially in an immunocompromised patient.
- Diagnosis requires either demonstration of caseating epithelioid granulomas or presence of acid-fast bacilli in tissue
- GDTB is usually responsive to RIPE therapy
- Surgical intervention is reserved for complications such as abscess, fistulas, or perforation.

References

- Padmanabhan H, Rothnie A, Singh P. An unusual case of gastric outlet obstruction caused by tuberculosis: challenges in diagnosis and treatment. BMJ Case Rep. 2013;2013:bcr2012008277. Published 2013 May 22. doi:10.1136/bcr-2012-008277