Gastric Outlet Obstruction as a Presenting Symptom of Duodenal Adenocarcinoma

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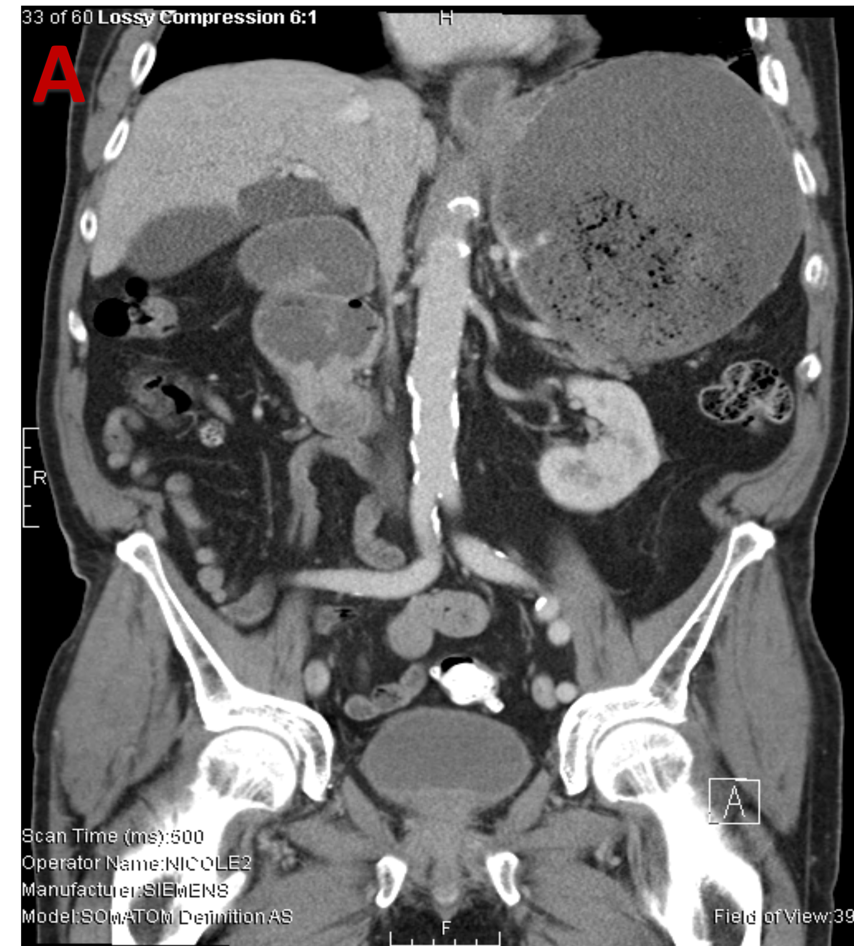
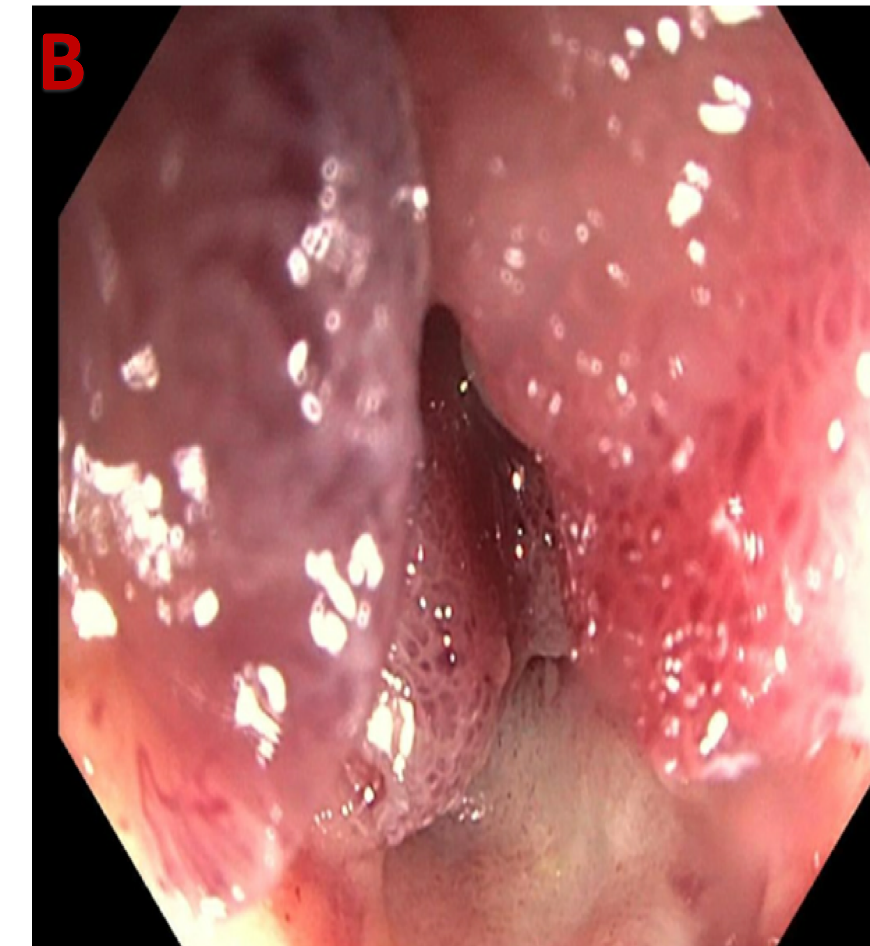
Introduction

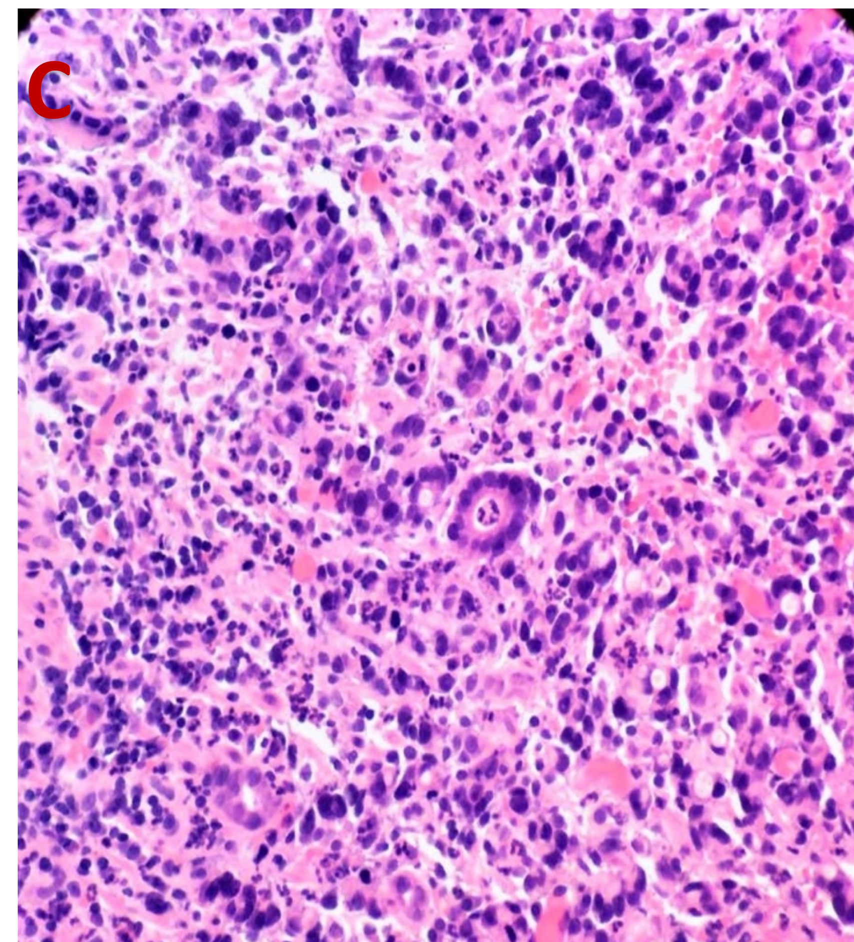
- Gastric outlet obstruction (GOO) can be due to benign or malignant causes. Benign etiologies of GOO have been down trending, resulting in 50-80% of cases of GOO attributable to malignancy.
- Of the malignant causes leading to GOO, pancreatic adenocarcinoma with extension to duodenum or stomach is the most common cause followed by distal gastric cancer.
- However primary duodenal adenocarcinoma as the cause of GOO is rather rare and we present a case of moderate to poorly differentiated duodenal adenocarcinoma leading to GOO

Case Presentation

An 82-year-old man with no reported past medical history presented to the hospital with epigastric abdominal pain associated with worsening distention, nausea, multiple episodes of non-bloody projectile vomiting and associated weight loss of 12 pounds in the past 2 months. Abdominal exam was unremarkable. Labs were nonsignificant. A CT scan of the abdomen and pelvis revealed a massively dilated stomach with suspected circumferential narrowing in the distal stomach suggestive of gastric outlet obstruction. NGT was placed for decompression, with significant relief of symptoms. Patient underwent EGD and no gross mass or obstructive etiology was noted in entire stomach including pylorus and antrum. There was inflammatory appearing mucosa characterized with extensive edema and contact oozing resulting in mass effect with severe luminal narrowing in the duodenal sweep/D2 regions. Biopsies were obtained and showed moderate to poorly differentiated adenocarcinoma. Subsequently patient underwent palliative duodenal stent placement with symptomatic relief.







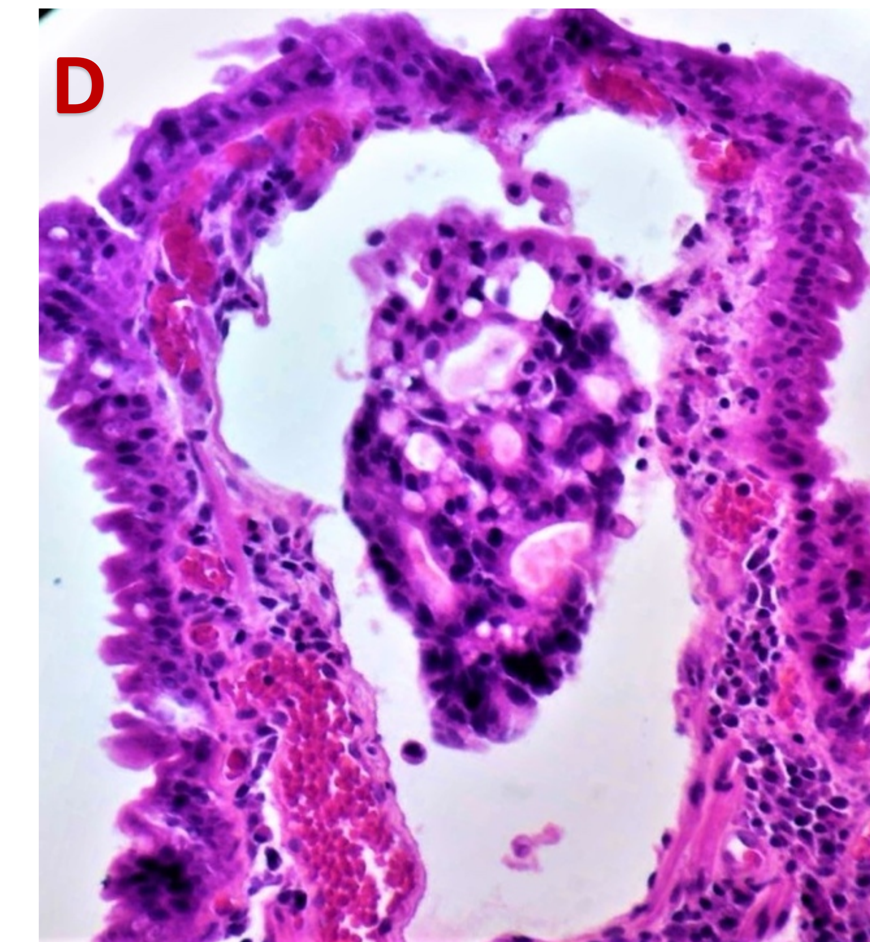


Figure 1A. CT A/P showed massively dilated stomach with suspected circumferential narrowing in the distal stomach suggestive of gastric outlet obstruction. Circumferential thickening and narrowing of the descending duodenum. **Figure 1B. I**nflammatory appearing mucosa with extensive edema and contact oozing resulting in mass effect with severe luminal narrowing in the duodenal sweep/D2 regions. **Figure 1C.** Histology of biopsy showing duodenal adenocarcinoma with tumor glands. **Figure 1D.** Tumor emboli in the lymphatics of the duodenal villi.

Discussion

Clinical history is important in suspecting diagnosis of GOO. Cross sectional imaging aids in diagnosis, but sometimes is not helpful in differentiating benign vs malignant etiologies. EGD is helpful when imaging is inconclusive and for definitive pathological diagnosis. Most patients achieve symptomatic relief with conservative measures like NPO, NGT decompression. Definitive treatment for GOO varies based on etiology. Most patients with malignant causes need surgery for cure if suitable candidates. For palliative purposes, until recently, surgical gastrojejunostomy used to be the primary approach. However, duodenal stent placement has become the primary palliative option as it is a cost-effective, minimally invasive option with adequate symptom relief, shortened hospital stay and faster resumption of oral intake.

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