Obstructive Esophageal Mass in a 40-year-old Female Presenting as Intractable Vomiting and Early DKA: A Case Report

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History of Present Illness

Chief Complaint: Epigastric pain radiating to chest, intractable nausea and vomiting for 2 months, diarrhea for 3 days.

- 40 year old female with GERD, T2DM and history of ICU admission for DKA secondary to insulin non-adherence. About two months ago, started to not tolerate food or liquids down without vomiting. Over past few weeks, vomiting has slowed to 2-3 episodes a day. She had a similar episode about one year ago, for which EGD was done and she was told her esophagus was the width of "a pinky finger." Dilatation was planned, but she was lost to follow-up, and had remission of her symptoms. She is mostly adherent with her insulin with several missed doses a month. Last menstrual period was three weeks ago. ROS positive for weight loss of about 25 pounds in the last 2-3 months.
- Surgical Hx: Cholecystectomy, several heart and intestinal surgeries at birth, bilateral tubal ligation, two C-sections.
- Social Hx: 8-year smoking history (5-6 cigarettes/day), quit 2 months ago. Smokes marijuana about once a month. Denies alcohol use.
- Family Hx: No known
- Medications: Novolin 70/30

Clinical Course

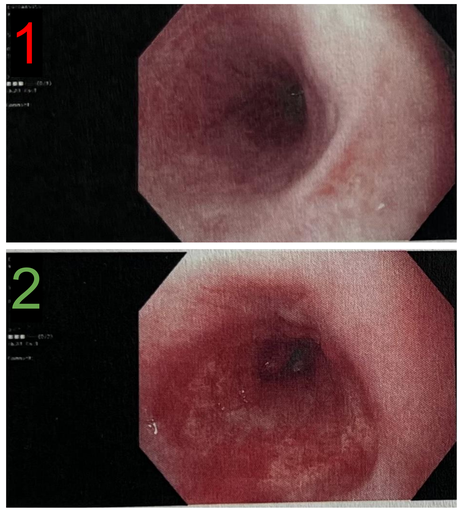
ED Course: Vitals stable except for sinus tachycardia to 110. Physical exam positive for epigastric and RUQ tenderness without guarding or rebound; otherwise, no other findings. Labs significant anion gap of 21, blood glucose 289. Lipase normal. HCG negative. Troponin normal. CT A/P did not reveal any acute abnormalities. Received 3L fluids, Zofran, Famotidine and GI cocktail with mild symptomatic relief. Patient was admitted to medical floor.

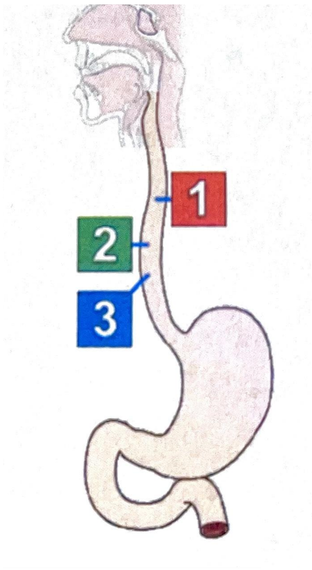
Hospital Course:

- Insulin and fluids started for early DKA.
- AG closed following day. Patient continued to have persistent nausea and continued to not be able to tolerate PO.
- Antiemetics given in ED, but then held after EKG revealed QTc mildly elevated QT interval. Since patient was on telemetry, low dose Reglan started with close observation.
- Nausea improved, but she continued having epigastric pain with radiation to her mid sternum, and was still not tolerating PO intake.
- Due to patient being told she had a narrowed esophagus on EGD about one year ago, GI was consulted for repeat scope.
- EGD showed a large, obstructive mass in the middle third esophagus, with features concerning for malignancy. Follow up CT Chest was consistent with EGD findings.
- Tissue biopsy and brush biopsy performed. Results showed inflammatory changes, but negative for malignancy or fungal infection.
- Tumor markers CEA, CA19-9, CA-125, CA15, AFP, and HCG tumor marker found to be negative.
- Patient was started on TPN. Esophageal stent placed with GI. Patient was advanced on PO diet, and discharged with follow up with thoracic surgery for consideration of esophagectomy and with GI outpatient for EUS/manometry for further stricture workup.

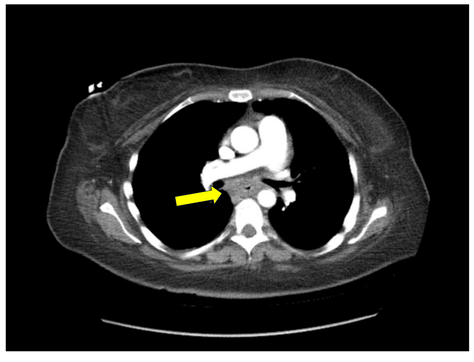
Diagnostic Testing & Imaging

EGD: A large, fungating mass with bleeding and stigmata of recent bleeding was found in the middle third of the esophagus, 32 cm from the incisors. The mass was completely obstructing and circumferential. Biopsies were taken with a cold forceps for histology. Image 1 and 2 are in the middle third of the esophagus. Image 3 is in the lower third.





CT Chest: Focal thickening and narrowing of the thoracic esophagus at the level of the carina, possibly caused by underlying mass, stricture or focal inflammatory change.



Pathology: Biopsy showed mucosal ulceration with granulation tissue. Follow up brush biopsy showed necroinflammatory debris admixed with rare squamous epithelial cells, thought to represent reactive atypia.

Discussion

Nausea and vomiting are common chief complaints in both the outpatient and inpatient settings. A thorough history and physical exam are important components of delineating the etiology, and oftentimes, provide enough information to make a diagnosis without further laboratory testing or imaging. It is important to differentiate acute from chronic nausea and vomiting, as acute symptoms are typically have infectious, inflammatory, or iatrogenic causes. Chronic nausea and vomiting, however, can has a broader differential that may warrant further workup depending on details of their history. Given our patient's history of diabetes mellitus and presentation of early DKA, gastroparesis was high on our differential. However, another key detail was her history of untreated esophageal narrowing. In her case, repeating EGD was appropriate given her persistent vomiting, GERD symptoms, and epigastric pain associated with weight loss, which revealed complete obstruction of her lower esophagus.

Esophageal stricture refers to the abnormal narrowing of the esophageal lumen. Causes can be benign or malignant, 70 to 80% of which are benign peptic strictures secondary to long-standing GERD. Other causes of benign strictures include corrosive substance ingestion, eosinophilic esophagitis, infectious esophagitis, drug-induced esophagitis, radiation injury, post-endoscopic iatrogenic stricture, chemotherapy-induced, and thermal injury. Causes of malignant strictures consist of esophageal adenocarcinoma or squamous cell carcinoma, or a metastatic neoplasm. Treatment revolves around reestablishing adequate luminal patency, which can be done with balloon dilatation, stent placement, surgical resection, and medical management. Additionally, the underlying cause must be addressed to prevent recurrence, such as long-term PPI therapy in the case of peptic ulcer stricture secondary to GERD.

Conclusion

In conclusion, our patient had what turned out to be a benign esophageal mass causing a completely obstructive stricture, likely secondary to long-standing untreated GERD. This case report illustrated an unusual presentation of benign esophageal stricture, and the importance of a thorough history and diagnostic workup with a chief complaint of chronic nausea and vomiting.

References

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