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A Scary Case of Gastroenteritis

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A Scary Case of Gastroenteritis

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Clinical Presentation

- A 52 year-old-male presents complaining of feeling "sick" for 1 day.
- One episode of non bloody vomiting with severe abdominal pains.
- Severe retching+.
- One episode of non bloody vomiting with severe abdominal pains.

PMH:
- Uses NSAIDS once a month for occasional headaches.
- Colonoscopy 2 years ago, reported as normal.
- Never had EGD in the past.
- No fevers/chills/sick contacts/recent weight loss/loss of appetite/diarrhea.
- Severe retching+.
- One episode of non bloody vomiting with severe abdominal pains.

FH:
- One drink of alcohol about every three months, no smoking, no drugs, married.

SH:
- Compound fracture in arm, s/p surgery.

PM:
- Diagnosed with GERD 5 years ago, on proton pump inhibitors.
- Current medications: statin, aspirin, metformin, insulin, baby aspirin, sertraline, bupropion.

Vitals: Temperature: 98.1 F, Pulse: 68/min, BP: 136/88 mm hg, SpO2: 99%

Physical Examination and Labs

General appearance: alert, awake, oriented, no acute distress

HEENT: atraumatic, normocephalic

Cardiovascular: normal S1/S2, regular rate & rhythm

Respiratory: aerating well, clear to auscultation, no distress, no tenderness

Abdomen: some epigastric tenderness, soft, no distention, no guarding. No peritoneal signs.

Extremities: normal temperature, no edema

Neuro/CNS: alert, oriented X 3, normal speech

Skin: dry, normal temperature

Psychiatry: normal affect, normal mood

Laboratory Tests

- CBC: Normal
- CMP: Normal
- UA: Normal
- Coagulation: Normal
- Rotavirus ag: Negative

Hospital Course

- Given the air in the gastric venous system portal venous system on imaging, emphysematous gastritis and catastrophic etiologies like necrosis were considered.
- Stat surgery consultation requested. Emergent IV antibiotics provided.
- However, clinically, patient without acute abdomen and with benign presentation.
- The nausea/vomiting, abdominal pains resolved over next day.
- Repeat CT abdomen revealed resolution of the air in the portal venous and gastric venous system.
- Portal venous and gastric venous air suspected to be due to vigorous vomiting/retching related mucosal damage as the portal of air entry.
- Patient discharged in stable condition with close follow up with his gastroenterologist.

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Discussion

- Emphysematous gastritis or gastric emphysema (GE) is the presence of air within the wall of the stomach.
- It represents a spectrum of conditions ranging from benign disease to septic shock and death.
- Gastric emphysema with or without associated gas in the portal venous may be caused by various causes including gastric outlet obstruction, trauma, instrumentation, ischemia, infectious causes, air leak from alveoli, cardiopulmonary resuscitation, connective tissue disorders, diabetic gastroparesis, ingested toxins, pancreatitis, chemotherapy agents, gastric ischemia, as well as severe vomiting.
- Literature review: Multiple cases reported of recurrent episodes of vomiting led to development of GE and HPVG and the patient was managed successfully by conservative measures.
- A comparative review of 14 cases found till date revealed that vomiting-related gastric emphysema has a more benign presentation and clinical course. Surgical intervention can be avoided.

Abdominal Imaging

- On admission: Gas in the gastric venous system
- 6 hours later: Gas in the gastric and portal venous system
- 24 hours later: Resolution of the gas in the gastric and portal venous system

Take Home Points

- Contrast enhanced CT abdomen is very useful for the diagnosis of gastric emphysema and associated hepatic portal venous gas.
- Vomiting induced gastric emphysema is believed to be caused by transmural diffusion of the air from the mucosal breaks in the wall of the stomach due to repeated and forceful vomiting and retching.
- Hemodynamic status is the most important determinant in making the decision between conservative approach and surgical intervention.
- By identifying appropriate patients for conservative approach, unnecessary aggressive surgical interventions can be reduced, morbidity and complications of surgery can be avoided and a cost effective approach to patient care can be followed.

References


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