

Introduction

The presence of air inside the gastric wall, termed gastric pneumatosis, is a rare but often worrisome finding on imaging. Four mechanisms have been proposed for its pathogenesis, sometimes thought to be acting concomitantly; these include ischemic insult, damage to the mucosal barrier, infiltration by gas-producing bacteria and extension of dissecting mediastinal air secondary to other pathologies. Here we describe a case of acute onset abdominal pain found to have gastric pneumatosis with mesenteric and portal vein gas.

Case Description

A 76-year-old male with a medical history of coronary artery disease and DM presented with complaint of new-onset generalized abdominal pain associated with nausea and non-bloody vomiting for 2 days. On admission, he was afebrile with a soft, diffusely tender abdomen. CT scan of the abdomen revealed air in the gastric wall along with air in the portal and mesenteric veins. The patient underwent a subsequent CT angiography which revealed some gastric pneumatosis, resolution of the portal and mesenteric vein gas and no vessel occlusions. An initial EGD was remarkable for severe inflammation in the stomach, erythema, friability and deep ulcerations with areas of necrosis. Biopsies were obtained with results revealing acute necrotizing erosive gastritis. The patient was kept NPO with NG tube placed for drainage. Repeat EGD 4 days later showed significant improvement in gastric features. The patient continued to improve clinically with supportive care. He was discharged with a plan for follow up in 2 weeks and an EGD in 6 weeks.

Discussion

Gastric emphysema and emphysematous gastritis are parts of a spectrum of findings; Although both are rare conditions, the former is a relatively benign finding resulting from mucosal disruption with air tracking, whereas the latter is a consequence of infection with gas-producing bacteria and is considered life-threatening. Risk factors for emphysematous gastritis include alcohol use, gastric erosions/ulcers and immune suppression states such as DM. Obstruction to the gastric outlet leads to increased intra-gastric pressure that can also contribute to gastric pneumatosis; this seemed to be the case in our patient, given the absence of any pulmonary findings or vessel abnormalities. The approach to and the clinical outcomes of gastric pneumatosis depend on the clinical status and the type of gastric pneumatosis. In hemodynamically stable patients, conservative approach is employed, whereas in unstable patients, surgery is usually recommended.

References

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