

Case Report of Gastric Emphysema

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Abstract: Gastric emphysema is presence of air within the wall of stomach. The etiology of this condition is range from benign disease to septic shock and death. It can be classified into emphysematous gastritis or gastric emphysema (GE). The presence of gastric emphysema along with hepatportalvenous gas (HPVG) was considered an ominous radiological sign and warranted an emergent surgical exploration. With use of computerized tomographic (CT) scan, an increasing number of benign causes of GE and HPVG have been reported in the literature, where patients can be managed by noninvasive and conservative measures. We hereby describe a case where pain abdomen and episodes of vomiting led to development of Gastric Emphysema and the patient was managed successfully by conservative measures.

1. Introduction

Gastric pneumatosis refers to the presence of air within the wall of the stomach. It can be classified into two types: gastric emphysema (GE) and emphysematous gastritis. GE is essentially non-life threatening and can be caused by a variety of iatrogenic and noniatrogenic events.^{2, 7} We report a case of 86 year-old female patient with pain abdomen for 1 week associated with nausea and vomiting came to our emergency department was sent for radiological investigation with clinical suspicious of hollow viscous perforation. X ray abdomen AP view shows linear/streak of radiolucency conforming the contour of distended stomach wall and possibility of hollow viscous perforation was kept.

CECT Abdomen was done which show air lucency replacing the wall of stomach and diagnosis of gastric emphysema was kept.

2. Case Report

A 86 year-old female patient with pain abdomen for 1 week associated with nausea and vomiting came to our emergency department was sent for radiological investigation with clinical suspicious of hollow viscous perforation. Initial X ray abdomen AP view was done followed by CECT abdomen for localization and characterisation.

X ray abdomen shows linear/streak of radiolucency conforming the contour of distended stomach wall and possibility of hollow viscous perforation was kept.

CECT Abdomen was done which shows air lucency replacing the wall of stomach suggestive of gastric emphysema.

Patient was managed in department of surgery with conservative measures. Patient improved with resolution of emphysema in follow up scan.



Figure 1: X ray Abdominal AP view show Linear/streaky radiolucency conforming to the contour of a thin-walled often distended, stomach, and surrounding any intraluminal gas and fluid content.

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Figure 2: CECT Abdominal axil image show linear air along the wall of stomach s/o gastric emphysema

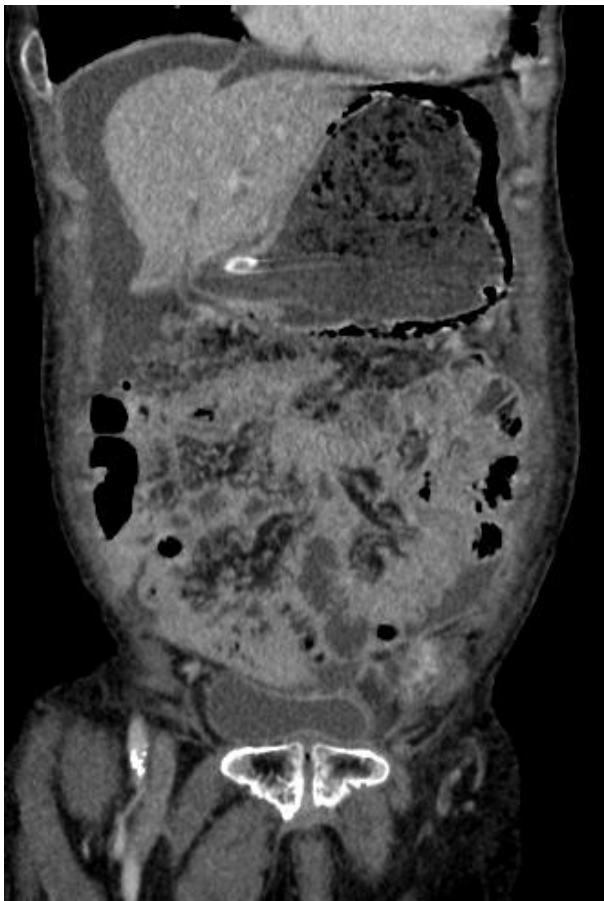


Figure 3: CECT Abdominal coronal image show linear air along the wall of stomach s/o gastric emphysema

3. Discussion

There are two types of gastric pneumatosis, emphysematous gastritis and gastric emphysema.⁷ Emphysematous gastritis may occur by direct inoculation of gas-producing bacteria into the gastric mucosa or by hematogenous spread.⁵ Immunosuppression, diabetes mellitus, ingestion of corrosive substances, alcoholism, and nonsteroidal anti-

inflammatory drugs ingestion are common predisposing factors. Affected patients are very ill with severe abdominal pain, peritoneal signs, and elevated WBCs, often resulting in a fulminant clinical course, shock, and a high rate of mortality.⁵⁻⁶

Unlike emphysematous gastritis, GE is noninfectious in origin and occurs primarily due to entry of intraluminal air into the wall of the stomach. It may be divided into three etiological categories: traumatic, obstructive, and pulmonary.⁷

Hussain et al. have classified patients into three broad groups to simplify the treatment approach. First, patients with HPVG and signs of acute abdomen are best treated with emergent surgery. Second, patients with HPVG who lack clinical signs and demonstrate stable hemodynamic parameters should receive conservative management. Finally, patients with HPVG and uncertain clinical features should undergo endoscopy and/or diagnostic laparoscopy to rule out underlying bowel ischemia.⁸

4. Conclusion

In conclusion, presence of air in the wall of stomach may be due to Gastric emphysema, and is often self-resolving, or due to emphysematous gastritis, which have worse prognosis. Superimposed occurrence of air in the portal venous system often causes a dilemma when considering surgical options. majority of gastric emphysema get resolved with conservative measures only, however few cases of gastric emphysema associated with gas in hepato-portal venous system needs surgical management.

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