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Case Study
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AN INTERESTING CASE OF GASTRIC EMPHYSEMA

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INTRODUCTION

The presence of air within gastrointestinal tract wall is known as pneumatosis intestinalis and it can occur anywhere from esophagus to rectum. Stomach is the least common site, accounting for only 9% of all reported cases. In gastric emphysema, air penetrates through any layer of the gastric wall due to a non-infectious process. The finding of air within stomach wall is not a disease itself, rather a sign of underlying gastric or systemic condition. It is essential to differentiate this from life threatening condition emphysematous gastritis which carries worse prognosis. Due to lack of diagnostic criteria, computed tomography (CT) is the investigation of choice.

CASE REPORT

We present a case of 86 year old female patient with history of abdominal pain and vomiting for 1 week. There was no history of abdominal surgery in past. On

clinical examination patient had diffuse abdominal tenderness and rigidity, a clinical diagnosis of hollow viscus perforation was kept.

IMAGING



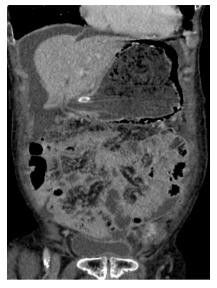
Plain xray abdomen – AP view showed curvilinear radiolucency outlining greater and lesser gastric curvatures suggestive of air within gastric walls.







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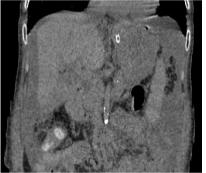




Contrast enhanced CT abdomen images showed distended stomach with a band of gas accumulation in the gastric walls with. There was presence of ascites. Nasogastric tube is seen in situ.

Patient was kept nil per oral for next 48 hours and managed with proton pump inhibitors and systemic antibiotics.





Non contrast CT abdomen on day 3 of admission showed resolution of gastric emphysema.

DISCUSSION

Air within gastric walls can be either idiopathic or secondary, ranging from benign condition as gastric emphysema to fulminant emphysematous gastritis.

Etiopathogenesis of air within gastric walls is associated with injury to mucosal walls of stomach. Acute massive distension can cause ischemia with extension of intraluminal gas intp the wall. Other causes are ingestion of caustic agents, endoscopic procedures, perforating ulcers and intra gastric catheter installation.

Clinical manifestattions are usually non specific in gastric emphysema, presenting with nausea, vomiting, abdominal pain, however presentation with acute abdomen is rare.

The main tool for diagnosis remains abdominal CT scan due to its higher sensitivity to detect minimal amount air in the wall as well as simultaneous evaluation of abdominal cavity. Gastric emphysema is seen as a hypodense, linear or curvilinear fringe along gastric wall, without evidence of wall thickening.

There is no standard treatment available for this condition and most of the cases are managed conservatively. The prognosis of gastric emphysema is usually benign with spontaneous resolution.

CONCLUSION

Gastric emphysema and emphysematous gastritis are spectrum of intestinal pneumatosis with variable presentation and clinical course. Combination of clinical, radiological and biochemical parameters are required to guide diagnosis and efficient management of such cases. Considering the chronology of complications, radiologists should be aware of these conditions leading to rapid decision on treatment approach.

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