Case Report
A 78 year old male was admitted to hospital post mechanical fall on a background of recently diagnosed Parkinson’s disease. Admitted for treatment of acute renal failure and rhabdomyolysis, the patient complained of nausea and abdominal discomfort, and surgical opinion was requested.

Past Medical History: Parkinson’s Disease, Type 2 Diabetes, Hypercholesterolaemia, Hypertension, Detrusor overactivity

Examination findings:
Soft but mildly distended abdomen. No guarding or peritonism. Bowel sounds present. Passing flatus with regular bowel actions.
Imaging:
XRAY - dilated small bowel and stomach, with evidence of gastric emphysema
CT abdomen/pelvis - distended stomach with gastric intramural gas and pneumoperitoneum. Minimal intra-abdominal fluid or extraluminal contrast identified.

Management:
A diagnosis of gastric emphysema secondary to acute gastric dilatation was made, and a nasogastric tube was inserted to decompress the stomach. Early treatment and monitoring prevented the progression of this to emphysematous gastritis and the patient made an uneventful recovery.
Discussion

Gastric emphysema is a rarely seen type of intestinal pneumatosis, and its causes vary from benign conditions to surgical emergencies. Clinical manifestations of gastric emphysema are often nonspecific, including nausea, vomiting, mild to moderate abdominal pain and haematemesis. Presentation of an acute abdomen is rare.

Mechanism of action of traumatic gastric emphysema is thought to be via distension of stomach lumen, causing transmural diffusion of gas through micromucosal tears. Few cases are present in literature regarding gastric emphysema secondary to acute gastric dilatation.

It is important however to consider gastric emphysema as a differential for perforation or emphysematous gastritis in patients with traumatic abdominal injuries, as a conservative management is sufficient, whereas emphysematous gastritis and gastric perforation have a high mortality risk, and surgical intervention is often required.

References

Agha F, Gastric Emphysema: An Etiologic Classification, Australasian Radiology 1984; 28: 346-352