

# Intermittent gastric volvulus secondary to gall bladder adhesions: a rare cause of gastric outlet obstruction

*J Sultan, PP Vassallo, P Davis, YKS Viswanath*

### INTRODUCTION

This article reports a rare cause of intermittent gastric volvulus from gastric antral adhesions to a chronically-inflamed gall bladder in a 51-year-old man who underwent successful laparoscopic correction.

### DISCUSSION

Gastric volvulus is an uncommon condition characterized by abnormal rotation of the stomach along its transverse (mesenteroaxial) or longitudinal (organoaxial) axis. Gastric obstruction or strangulation can occur when the rotation exceeds 180°. In 30% of cases, volvulus may occur as a primary event (Teague et al, 2000), although secondary causes are more common. The underlying cause may be a paraoesophageal hiatus hernia, eventration of the diaphragm, adhesions or abdominal bands (Teague et al, 2000). The major cause of death is strangulation leading to necrosis, perforation and hypovolaemic shock with a reported mortality rate of 30–50% (Teague et al, 2000). The triad of epigastric pain, retching with inability to vomit, and difficulty in passing a nasogastric tube are the classic features of acute gastric

volvulus. Patients may also have a history of gastro-oesophageal reflux, vomiting, dysphagia and breathlessness (Teague et al, 2000).

Schaefer et al (1997) describes classic features of chronic volvulus: a retrocardiac air shadow, inability to visualize the pylorus on endoscopy and spontaneous remission and recurrence with remission often occurring at the time of medical evaluation. The subacute or chronic type, however, is frequently not recognized because it is accompanied by vague symptomatology suggestive of another intra-abdominal process.

This patient had intermittent gastric volvulus secondary to adhesions to the chronically-inflamed gall bladder. The symptoms may easily be confused with those of peptic ulcer disease, chronic pancreatitis or cholecystitis, but the fact that he reported retching, but was unable to vomit, points towards obstruction in the stomach. Intra-abdominal gastric volvulus is a rare entity and has been described following Nissen fundoplication (Ashok et al, 2003) and associated with gastric leiomyoma (Deevaguntla et al, 2003). There have been no similar reported cases (Somers et al, 2000; Wadoodi et al, 2000).



*Figure 1. Lateral view of contrast meal showing characteristic cup and fill deformity. The gastric antrum is tugged towards the gall bladder.*

The clinical significance of this case is that, owing to its rarity, it is unlikely to be suspected. However, the fact that the vomiting was replaced by retching may imply, what was initially biliary colic or cholecystitis was replaced by gastric outlet obstruction later on in the course of the disease, when the adhesions had formed. The fact that the pylorus could not be seen at endoscopy also indicates a twist in the stomach. **HM**

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**Dr J Sultan** is Senior House Officer, Surgery, **Mr PP Vassallo** is Upper GI Research Fellow, **Mr P Davis** is Consultant Upper GI Surgeon and **Mr YKS Viswanath** is Consultant Upper GI and General Surgeon, James Cook University Hospital, Middlesbrough, Cleveland TS4 3BW

*Correspondence to: Mr YKS Viswanath*

### CASE REPORT

**A** 51-year-old man presented with a history of intermittent epigastric pain over a course of 18 months, associated with feeling bloated, and episodic nausea and non-bilious vomiting, which relieved the pain. During recent months vomiting had been replaced by severe retching. Ultrasound scan of the gall bladder revealed gallstones. Clinical examination was unremarkable. Routine haematological and biochemical investigations were also normal.

Two gastroscopies were incomplete, since on both occasions the endoscope could not be negotiated beyond the antrum and the pylorus could not be visualized. A water-soluble contrast swallow revealed a ‘cup and fill’ configuration (Figure 1), suggesting mesenteroaxial gastric volvulus. A repeat ultrasound scan revealed a thick-walled gall bladder with several calculi.

Laparoscopy confirmed the presence of the gastric volvulus, with the stomach adherent to the body of a chronically-inflamed gall bladder. At initial intraoperative gastroscopy the endoscope failed to pass beyond the antrum. Following adhesiolysis, cholecystectomy and anterior suture gastropexy, a gastroscopy could easily be passed into the pylorus and duodenum. He made an uneventful recovery and remains asymptomatic 1.5 years after the operation.