



Case Report

Large Gastric Obstruction due to Hiatus Hernia in a 68-Year-Old Male

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ABSTRACT

A 68-year-old male presented with acute abdominal pain, coffee-brown vomitus, hypotension, and elevated lactate levels on arterial blood gas analysis. Past medical history included hypertension (HTN), obesity, severe gastritis, and obstructive sleep apnoea (OSA). A computed tomography (CT) scan revealed an anterior diaphragmatic hernia with significant gastric dilatation. This report discusses the presentation, diagnosis, and management of this life-threatening condition.

Keywords: Acute abdominal pain; Diaphragmatic hernia; Gastric dilatation; Coffee-brown vomitus

Case Presentation

Clinical History and Examination:

The patient presented to the emergency department with a 12-hour history of: - Severe epigastric and abdominal pain. - Persistent vomiting with coffee-brown contents. - Light-headedness and fatigue.

Upon examination: - Looks unwell, on oxygen for respiratory distress.

Vital signs: - Blood pressure: 85/60 mmHg (hypotensive). - Heart rate: 110 beats/min

(tachycardic). - Respiratory rate: 24 breaths/min (tachypnoeic). - Oxygen saturation: 90% on room air. Maintaining 94% on 2 litres oxygen

General physical examination: - Obese male with pallor. - No cyanosis or peripheral oedema.

Abdominal examination: - Distended abdomen with tenderness in the epigastric region. - Hypoactive bowel sounds.

Investigations: 1. Arterial blood gas (ABG): - PH 7.32 Pco₂- 5, P0₂- 9, K- 3.2.

Na -140 hco₃⁻ 23 Elevated lactate: 4.8 mmol/L (suggestive of tissue hypoperfusion). - Mild metabolic acidosis, dehydration

2. Blood tests: - Haemoglobin: 10.5 g/dL (mild anaemia). - White blood cell count: 14,000/mm³ (leucocytosis).

- Electrolytes: Mild hypokalaemia. - Creatinine: Elevated, suggestive of acute kidney injury.

3. imaging: - Computed tomography (CT) scan of the abdomen and pelvis: - Large anterior diaphragmatic hernia. - Significant gastric dilatation with part of the stomach herniated into the thoracic cavity. - Possible gastric volvulus.

Past Medical History- Hypertension (HTN): On amlodipine 10 mg daily. - Obesity: Body Mass Index (BMI): 33 kg/m². - Severe gastritis: Previously treated with proton pump inhibitors. - Obstructive Sleep Apnoea (OSA): On continuous positive airway pressure (CPAP) therapy.

Diagnosis: Acute gastric obstruction secondary to a large anterior diaphragmatic (hiatal) hernia with probable gastric volvulus, complicated by hypovolemia and ischemia (as evidenced by elevated lactates and coffee-brown vomitus suggestive of upper gastrointestinal bleeding).

Management: Initial Stabilization 1. Resuscitation: - Intravenous fluids: Ringer's lactate and normal saline boluses to address hypovolemia and hypotension. - Oxygen therapy: Administered via nasal cannula to maintain SpO₂ > 94%. - Nasogastric tube insertion: To decompress the dilated stomach. 2. Medications: - Empiric antibiotics: Broad-spectrum coverage (e.g., piperacillin-tazobactam) due to the risk of perforation and infection. - Proton pump inhibitors: High-dose IV pantoprazole to manage gastritis and prevent further bleeding. - Analgesics: IV paracetamol for pain management.

Definitive Management

3. Surgical Intervention: - Emergency laparotomy was performed by the surgeons, due to the risk of gastric ischemia and perforation. - Findings during surgery: - Herniated, dilated stomach with evidence of partial volvulus. - No evidence of gastric necrosis. - Procedure:

Reduction of the herniated stomach, repair of the diaphragmatic defect (hiatal hernia repair), and gastric decompression.

4. Postoperative Care: - Continued nasogastric decompression. - Gradual reintroduction of oral feeding. - Close monitoring of blood gases, lactate levels, and hemodynamic status.

Outcome and Follow-Up: The patient recovered well postoperatively. He was discharged after 7 days with the following advice: - Weight loss and lifestyle modifications to address obesity. - Long-term use of proton pump inhibitors. - Follow-up with gastroenterology and surgery. - Assessment for CPAP therapy adherence for OSA.

Figure:1



Figure 1: Diaphragmatic hernia

Figure:2

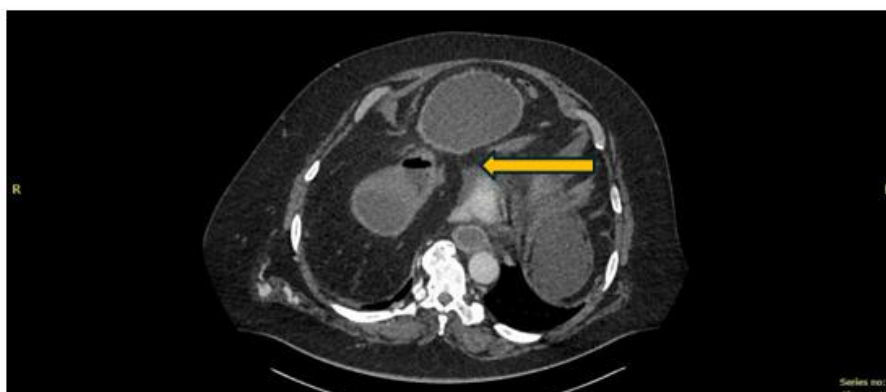


Figure 2: looping of part of stomach in to the diaphragmatic defect causing pressure on the gastric out let.

Figure :3

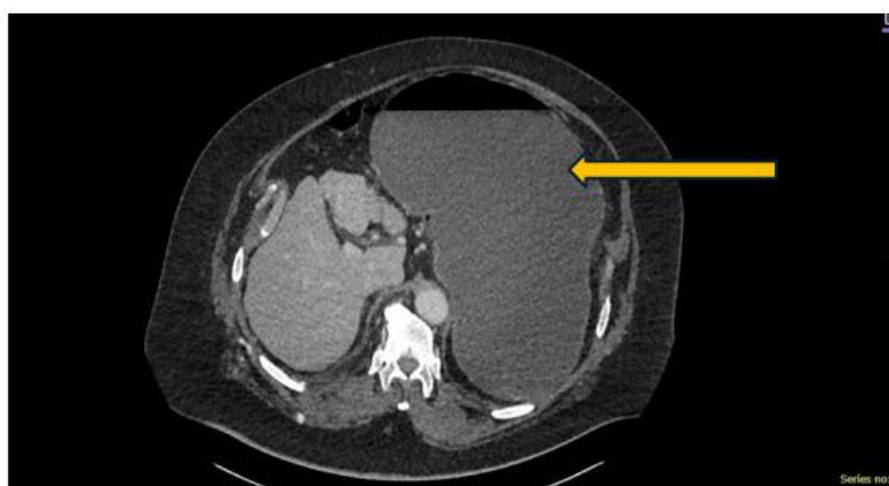


Figure 3- Gastric distension due to the the gastric outlet obstruction.

DISCUSSION

Hiatal hernias, particularly large or paraesophageal types, can lead to life-threatening complications, including gastric obstruction, volvulus, and ischemia. This case highlights the importance of prompt diagnosis and management of acute abdominal presentations in patients with known hernia history and risk factors such as obesity and gastritis.

CONCLUSION

Large hiatal hernias with gastric dilatation and volvulus pose significant risks, including perforation and ischemia. Early diagnosis with imaging and immediate surgical intervention are critical for a favourable outcome.

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9. El-Gazza, Figure 1 obstruction of stomach contents**Case Report: Large Gastric Obstruction Due to Hiatus Hernia in a 68-Year-Old Male**1
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