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Stomach Volvulus: A Case Study

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Abstract **Case Report**

Gastric volvulus is a rare but potentially serious condition, often associated with an underlying anatomical abnormality, particularly hiatal hernia. We report the case of a 43-year- old female patient with a history of surgery for hiatal hernia, admitted for acute epigastric pain associated with nausea and vomiting. Abdominal computed tomography revealed a hiatal hernia complicated by gastric volvulus, with no signs of parietal distress or vascular or peritoneal complications. This case illustrates the major importance of imaging in the early diagnosis and appropriate management of gastric volvulus.

Keywords: gastric volvulus, hiatal hernia, acute epigastric pain, abdominal CT scan, digestive emergency.

INTRODUCTION

Gastric volvulus is defined as an abnormal rotation of the stomach of more than 180° around one of its axes, leading to digestive obstruction and a risk of gastric ischaemia [1]. It is a rare condition, but potentially fatal if not treated quickly.

Hiatus hernia is the main predisposing factor for gastric volvulus in adults, particularly in its paraesophageal forms or after hiatal surgery [2]. Clinical diagnosis is often difficult due to non-specific symptoms, making imaging, particularly computed tomography, essential [3].

CLINICAL OBSERVATION

This is a 43-year-old female patient, previously operated on for a hiatal hernia, admitted to the emergency department with acute epigastric pain, associated with nausea and uncontrollable vomiting. The onset was acute, with no history of trauma or fever.

On clinical examination, the patient presented with intense epigastric pain without tenderness or abdominal guarding. Her haemodynamic parameters were stable.

A chest and abdominal CT scan with contrast was performed. It revealed a hiatal hernia with intrathoracic gastric ascension, complicated by gastric volvulus within the hernia. The enhancement of the gastric wall was considered satisfactory, with no signs of ischaemia.

Moderate infiltration of the adjacent fat was noted.
The mesenteric arterial and venous vessels were patent.
There was no hydro-aerial level, pneumoperitoneum or intra-abdominal effusion.

Figure 1: Volvulus of the stomach within the hiatal hernia

DISCUSSION

Gastric volvulus is classically divided into organo-axial and mesenteric-axial volvulus, the former being more common in adults and often associated with hiatal hernia [1,4]. A history of hiatal surgery is a recognised risk factor, promoting excessive mobility of the stomach [2].

Clinically, the picture may include acute epigastric pain, nausea and vomiting. Borchardt's triad (epigastric pain, uncontrollable vomiting, inability to insert a nasogastric tube) is not always complete, particularly in subacute forms [5].

Computed tomography is currently the gold standard examination. It allows the diagnosis to be confirmed, the type of volvulus to be specified and, above all, signs of severity to be assessed, such as the absence of parietal enhancement, vascular thrombosis, pneumoperitoneum or intra-abdominal effusion [3,6]. In the case presented, the absence of signs of gastric distress or complications allowed for appropriate and non-urgent therapeutic management.

Treatment is based on reducing the volvulus and correcting the contributing factor, most often surgically, in order to prevent recurrence and serious complications [4,7].

CONCLUSION

Gastric volvulus on hiatal hernia is a rare digestive emergency, the clinical presentation of which can be misleading. Computed tomography plays a central role in diagnosis and assessment of severity. The absence of signs of gastric distress allows for controlled management, but surgical correction remains necessary to avoid recurrence and potentially fatal complications.

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