

# Case report

## Gastric volvulus: a rare cause of acute abdomen in a 84 year old patient- a case report

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### ABSTRACT

**Introduction:** Gastric volvulus is a rare abdominal emergency occurring when the stomach rotates along one of its axis.

**Presentation of the Case:** our patient is a 84 year old male, with history of smoking, admitted in the emergency room for acute epigastric pain and distension and hematemesis. Physical examination found a distended upper abdomen. And the CT scan showed a mesenteroaxial volvulus of the stomach, the patient was operated on laparoscopically, with reduction of the volvulus and gastropexy, no predisposing abdominal abnormality was found, the postoperative course was uneventful and the patient discharged after 3 days.

**Discussion:** Organo axial volvulus is the most common form of gastric volvulus, mesentero axial and the combined volvulus are the other types described in literature. Gastropexy and devolvulation with the eventual treatment of any predisposing intra abdominal abnormalities are the pillars of the surgical treatment.

**Conclusion:** Gastric volvulus is rare surgical emergency, expeditious treatment prevents serious avoidable complications.

*Keywords: Gastric volvulus, acute abdomen, case report, gastric strangulation, laparoscopy*

### 1. INTRODUCTION

Gastric volvulus is a rare clinical event, it occurs when the stomach rotates on itself along its transverse or longitudinal axis for at least 180°. In most cases it is the result of gastric, splenic, or diaphragmatic anatomic abnormality, the most common cause is a diaphragmatic hernia[1]. Here we describe the case of a 84 year old patient, presenting a gastric volvulus without having a predisposing diaphragmatic anatomic abnormality.

### 2. PRESENTATION OF THE CASE

The patient is an 84 year old male, with a history of chronic smoking, operated on in 2019 for a benign prostate hypertrophy, and having no further history of abdominal surgery. The patient reported epigastric pain evolving for 8 days before his admission to the emergency room, associated with hematemesis of low abundance and abdominal distension. The physical examination of the patient revealed stable vital parameters, and a distended abdomen especially in the epigastric and upper left abdomen. A pre operative CT Scan showed a mesentero axial volvulus of the stomach, associated with stones in the gallbladder.

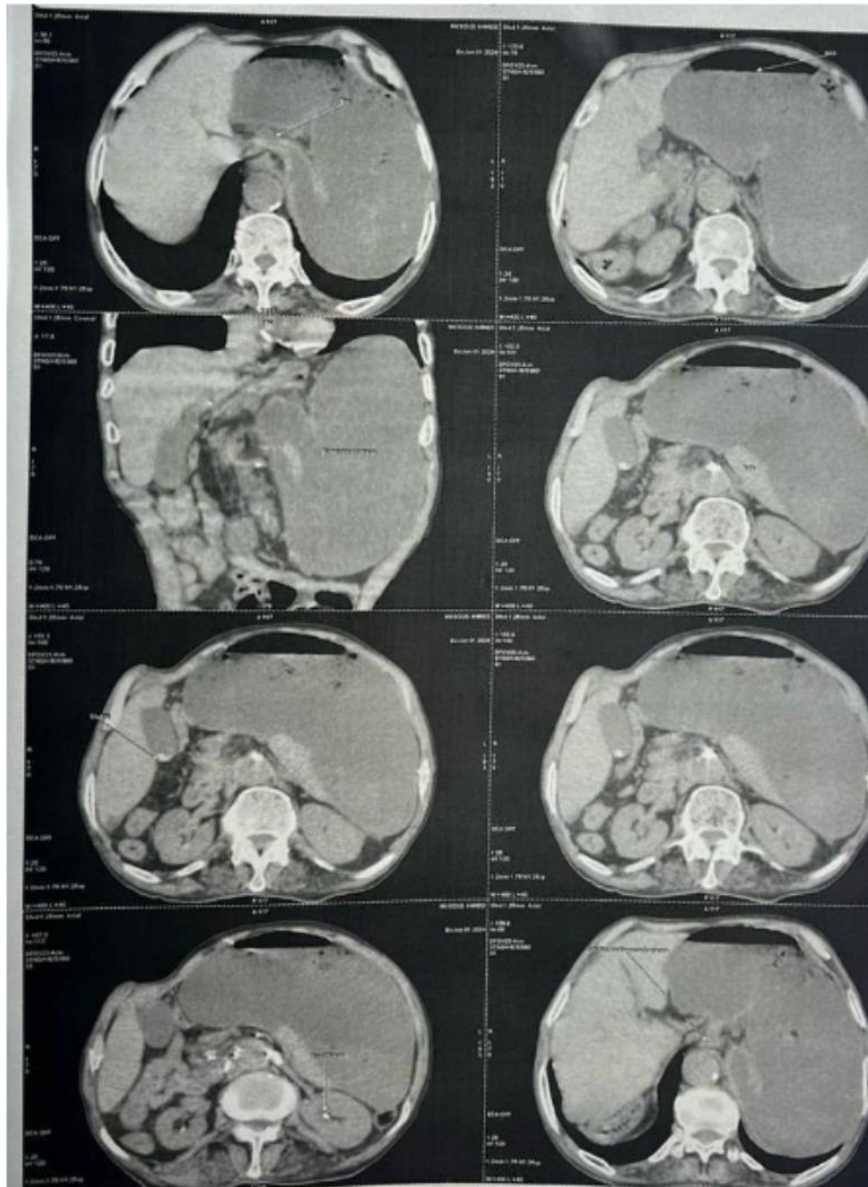


Figure1: CT SCAN images.

The patient was admitted to the operating room urgently, and was operated upon by laparoscopy. Upon the introduction of the trocars, we have found a viable stomach which is rotated 180° along its longitudinal axis, with the greater curvature facing the liver. We proceeded with a devolvulation of the stomach, and a gastropexy to the anterior abdominal wall, we then performed a cholecystectomy.

**Why patient does a gastric volvulus?? Had he a diaphragmatic eventration?**

**How were the antropyloric region:Tumor? ulcer? Stenosis?**

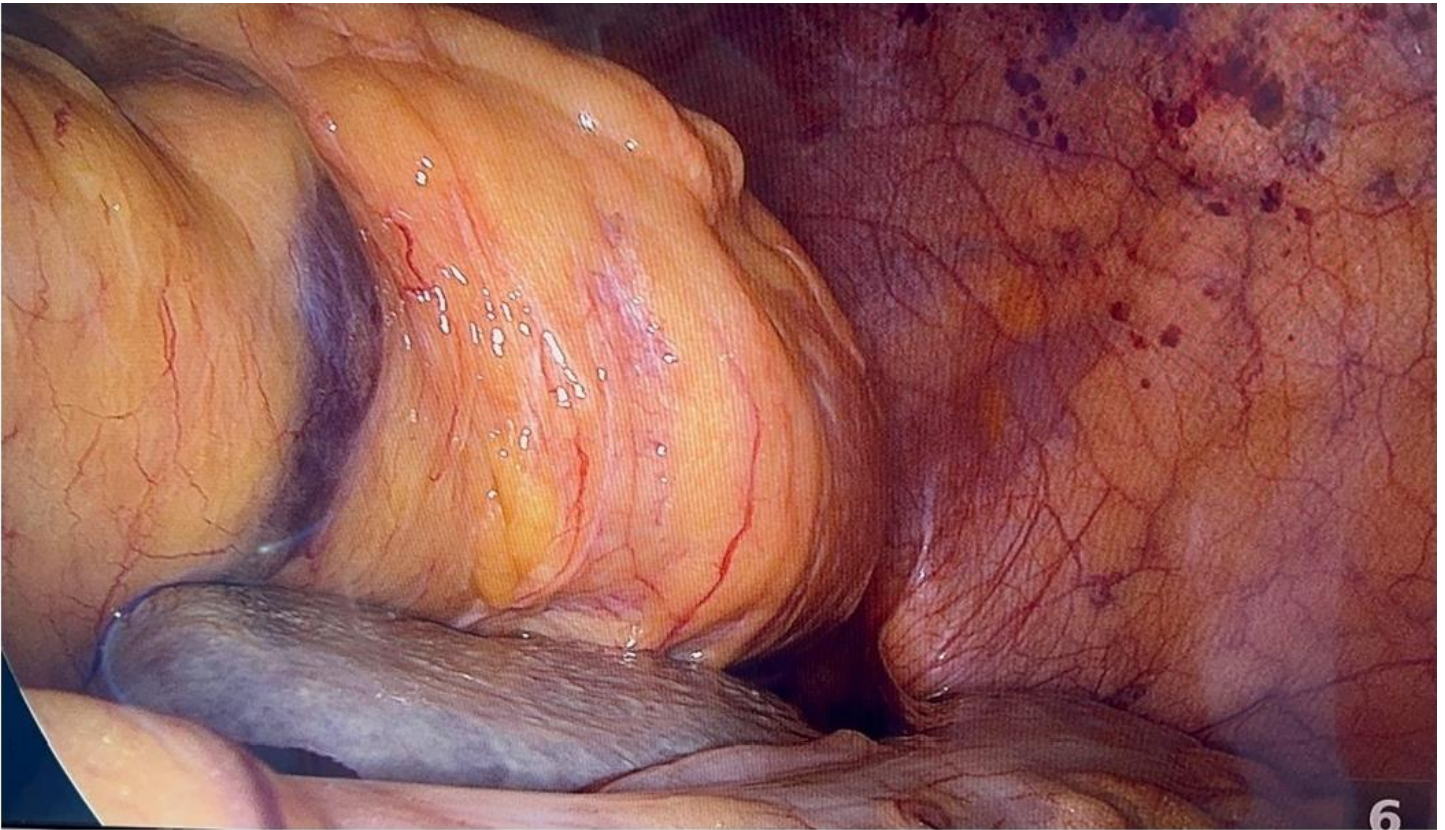


Figure 2: gastric volvulus



Figure3: Gastropexy after volvulus reduction

The post operative course was uneventful, and the patient was discharged after 3 days.

### **3. DISCUSSION**

Acute gastric volvulus constitutes an abdominal emergency, and requires prompt diagnosis and treatment, patients typically present with acute epigastric pain and distension, and unproductive vomiting. These symptoms are known as the Borchardt triad [2]. In the most common cases gastric volvulus is secondary to a diaphragmatic defect or other intra abdominal abnormalities, such as gastric tumors and adhesions[3]. In our case the volvulus was primary, meaning no other abdominal predisposing factors were found, this entity is much rarer and is primarily the result of ligamentous lengthening.

Three types of gastric volvulus are described in literature[4], the organoaxial, mesenteroaxial, and a combination of both. The most common is the organoaxial volvulus, in which the stomach rotates along the cardio pyloric axis with two sites of obstruction, this entity is the one encountered in our patient. The mesenteroaxial volvulus results of the rotation around a transverse axis at the antral area. The combined type of gastric volvulus is much rarer.

The primary treatment of gastric volvulus is surgery, including a decompression of the stomach with the reduction of the volvulus, gastropexy , and the correction of any intra abdominal predisposing factors to volvulus.

The possible operative procedures used to prevent recurrence of volvulus have been reviewed by Tanner [5]: 1. repair of diaphragmatic hernia, 2) division of adhesive bands 3) gastropexy 4) gastropexy with subphrenic colonic displacement; 5) partial gastrectomy 6) gastrojejunostomy 7) Opolzer's operation of fundo-antral gastropexy; 8) repair of eventration of the diaphragm. In our case we proceeded with a reduction of the volvulus and a gastropexy to the anterior abdominal wall, and the surgery was well tolerated by our patient.

### **4. CONCLUSION**

Gastric volvulus is a rare abdominal emergency requiring a prompt diagnosis and expeditious surgical treatment, it most commonly results from a diaphragm defect or other intra abdominal abnormalities which should be addressed during the same surgery to prevent a recurrence.

## **CONSENT (WHERE EVER APPLICABLE)**

All authors declare that 'written informed consent was obtained from the patient (or other approved parties) for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editorial office/Chief Editor/Editorial Board members of this journal.

## **ETHICAL APPROVAL (WHERE EVER APPLICABLE)**

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