

Gastric volvulus herniation in the chest

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Case presentation

An 80 year-old lady with a history of hypertension and hypothyroidism presented to emergency department (ED) with complaints of shortness of breath, epigastric discomfort, difficulty swallowing and poor appetite for a period of three weeks. She was only able to eat a soft diet and clear liquids. A chest radiograph in the ED revealed a large hernia, which was seen extending from the right hemidiaphragm across the midline into the left hemidiaphragm, likely representing a combination of a

diaphragmatic hernia with a hiatal hernia and possible gastric volvulus (**Figure 1**). A computed tomography (CT) scan of the chest and abdomen revealed a large and distended hollow viscus structures filling the lower chest and upper abdomen. The CT was suggestive of organoaxial gastric volvulus with marked dilatation of the stomach (**Figures 2 and 3**). Barium swallow also showed findings compatible with organoaxial gastric volvulus.

Key words: Gastric volvulus, gastric herniation, chest radiograph.

Discussion

Gastric volvulus has been defined as an abnormal rotation of the stomach of more than 180 degrees, creating an obstruction and/or ischemia. It can be organoaxial, mesentericoaxial, or combined. In organoaxial type, the stomach rotates around an axis that connects the gastroesophageal junction and the pylorus and it accounts for the majority of cases. In the mesentericoaxial type, the axis bisects the lesser and greater curvatures.

In adults, diaphragmatic defects are the most common cause of gastric volvulus. Acute gastric volvulus commonly presents with epigastric pain, or chest pain, retching and inability to pass a nasogastric tube. Chronic

gastric volvulus presents with intermittent epigastric pain, dyspnea, chest discomfort, and dysphagia as in the case of our patient.

Figure 1. Chest radiograph revealing a large air fluid level extending from right hemidiaphragm across the midline to left hemidiaphragm



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Figures 2 and 3. Computed tomography (CT) of chest and abdomen demonstrating markedly dilated stomach in the thoracic cavity and upper abdomen with air fluid levels

