

Unusual Cause of Retrosternal Chest Pain

A 56-year-old female, known hypertensive on oral medications with a long history of gastroesophageal reflux disease, who underwent three laparotomies. The last two were for Nissen's fundoplication almost 8 years earlier to her presentation. She presented with progressive dyspnea mainly postprandial. Her physical examination was unremarkable as well as her laboratory investigations. The initial chest x-ray is shown in [Figure 1]. The barium swallow is illustrated in [Figure 2]. Computed tomography of the chest and upper abdomen is shown in [Figures 3 and 4 a-b].

QUESTIONS

1. What are the findings on initial chest radiograph?
2. What are the findings on the barium swallow and CT?
3. Is surgery indicated to treat such entity?

ANSWERS



Figure 1: Initial chest X-ray

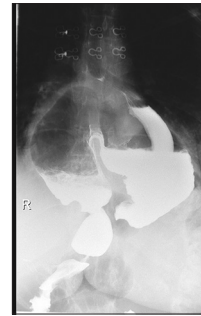


Figure 2: Barium swallow

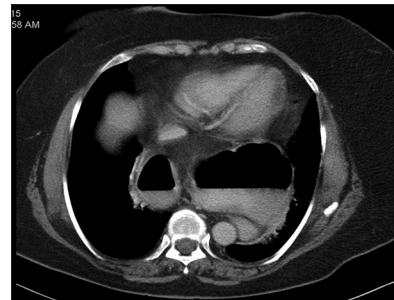


Figure 3: Axial computed tomography section

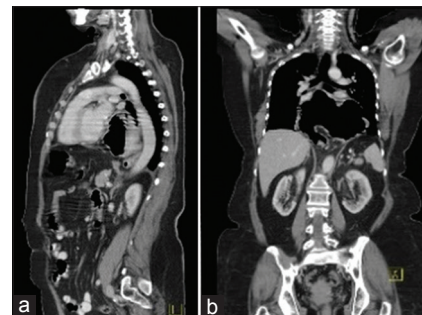


Figure 4: Sagittal and coronal computed tomography sections (a and b)

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ANSWERS

- (1) A large retrocardiac lucency with air-fluid level suggestive of hiatal hernia.
- (2) Confirmed the diagnosis of hiatal hernia. Almost all the stomach is intrathoracic.
- (3) Surgery is strongly advised since the risk of perforation is high.

Management

The patient underwent laparoscopic hiatal hernia repair. Conversion through thoracoabdominal approach was done due to short esophagus. She underwent Collis gastroplasty as well as cruroplasty.

DISCUSSION

Hiatal hernias are categorized into 4 types; type 1 (sliding) where the cardia slides upward, type 2 (paraesophageal) where the gastroesophageal junction is preserved while the anterior wall of the stomach moves into the mediastinum, type 3 (combined) where elements of both type 1 and 2 are the feature, and type 4 (giant paraesophageal) where more than half of the stomach or other abdominal organ is relocated into the mediastinum.^[1] Clearly, this case is a type 4 hiatal hernia. For type 4, the risk of severe reflux, Cameron's ulcers due to linear gastric ulcerations, intrathoracic incarceration,

strangulation, or perforation is high and contributes to high morbidity and mortality.^[2] Postprandial dyspnea was reported in this case, but some have even reported heart failure due to the same pathophysiology.^[3] Elective repair is strongly advocated to prevent stomach perforation and the subsequent catastrophe.^[4]

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