



LETTER TO THE EDITOR

A Growing Mass in the Mediastinum: Hiatus Hernia



Bowditch first published a description of a hiatus hernia (HH) in 1853. In 1919, Soresi was the first to surgically reduce a HH. During the first half of the 20th century, the association between gastroesophageal reflux disease (GERD) and HH was established. HHs are classified into four types: type I indicates sliding hernia; type II, paraesophageal hernia (incidence $\leq 5\%$); type III, mixed sliding and paraesophageal hernia; and type IV, herniation of additional organs (colon, omentum, and spleen).¹ A giant HH is a hernia that includes at least 30% of the stomach in the thorax, and most commonly is a type III hernia.² There are two potential mechanisms of giant HHs: (1) GERD leads to esophageal scarring and shortening with traction on the gastroesophageal junction and gastric herniation; and (2) chronic positive pressure on the diaphragmatic hiatus with a propensity to herniation leads to gastric displacement into the thorax, resulting in causing GERD.² We report an elderly patient with a growing mass in the mediastinum on the roentgenogram, who was already treated for erosive esophagitis.

An 85-year-old female patient presented himself with a large mass in mediastinum on the chest roentgenogram. The patient had already received both treatments with a proton pump inhibitor for erosive esophagitis and a calcium channel blocker for hypertension. She had neither chest oppression nor respiratory distress. Her physical examination results showed that she was neither anemic nor febrile. Her blood pressure indicated 125/70 mmHg on the supine position. In fact, her chest roentgenography revealed a large mass overlapping with the heart (Figure 1A, arrows), which included the air–fluid level (arrowheads), with a pulmonary scar in the right lower field. Retrospective analyses using the chest roentgenograms showed that the mass was found on the film obtained 2 years ago (Figure 1B, arrows), and that it was not detected on the film 4 years ago (Figure 1C). Chest computed tomography indicated a large HH with intrathoracic stomach located behind the left atrium (Figure 1D) as previously described.³ A diagnosis of HH type III was made. At follow-up 1 year later, the patient was asymptomatic, although she received no further treatment.

Lim et al⁴ have recently reported a unique case of a massive HH in a 93-year-old woman patient, compressing on the left atrium, mimicking a left atrial mass. A massive HH and the thoracic stomach were also illustrated by barium swallow as images in cardiovascular medicine during left atrial catheter ablation for atrial fibrillation.⁵ Echocardiography is an investigational tool for

identifying cardiac masses. However, detection of extracardiac masses using echocardiography may lead to a misdiagnosis. The result from another asymptomatic patient with a paracardiac mass in the right lower lobe suggests the remarkable accuracy of chest computed tomography for diagnosing a massive HH containing the whole stomach and fatty omental tissue.³ A case of massive HH masquerading as a tension pneumothorax was also reported.⁶ Clinicians should consider a large HH when examining patients with a mass that is located behind the heart in the mediastinum on the roentgenogram. Our images concerning HH appear to be instructive for clinicians.

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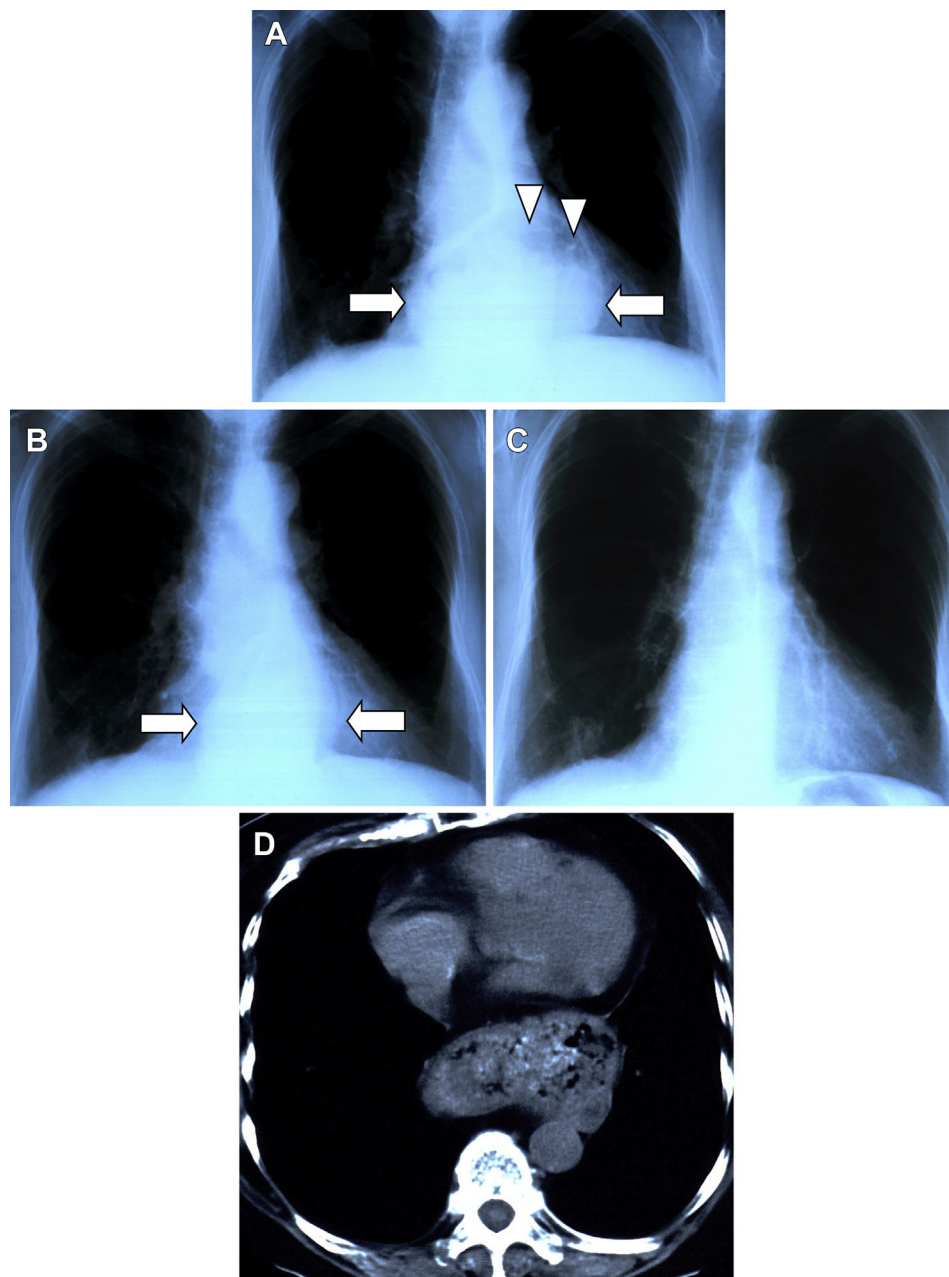


Figure 1 Chest roentgenography reveals (A) a large mass overlapping with the heart (arrows), which includes the air–fluid level (arrowheads), with a pulmonary scar in the right lower field. Retrospective analyses using the chest roentgenograms show that (B) the mass was found on the film obtained 2 years previously (arrows), and that (C) it was not detected on the film 4 years ago. (D) Chest computed tomography indicates a large hiatus hernia with intrathoracic stomach located behind the left atrium.