

## Achalasia cardia causing left atrial compression diagnosed on echocardiography

A 20-years-old male presented with symptoms of chest discomfort for the last one month. The patient gave a past history of occasional difficulty in swallowing for which he did not seek any medical attention. On examination, pulse was 86/ minute, blood pressure was 118/72 mm of Hg and respiratory rate was 14/minute. SpO<sub>2</sub> was 97% on room air. His electrocardiogram (ECG) showed non-specific ST-T wave changes. Echocardiographic examination was advised by treating physician, which revealed a posterior mediastinal mass lesion with non-homogenous mobile contents compressing the left atrium (Fig. 1).

The patient subsequently underwent computed tomography (CT) of thorax, which showed grossly dilated esophagus with the

presence of food residue (Fig. 2), showing smooth narrowing at the level of gastro-esophageal junction suggestive of achalasia cardia. The dilated esophagus was causing an impression upon the posterior wall of the left atrium. The diagnosis of achalasia cardia was confirmed on esophageal manometry. Esophageal myotomy was done and the patient was relieved of his symptoms.

Achalasia cardia is a motility disorder characterized by absent esophageal peristalsis with impaired relaxation of the lower esophageal sphincter leading to dilatation of the esophagus [1]. Rarely, it can cause compression of the left atrium leading to symptoms of chest discomfort and if untreated can lead to hemodynamic compromise [2,3]. Acute chest pain mimicking acute coronary syndrome has

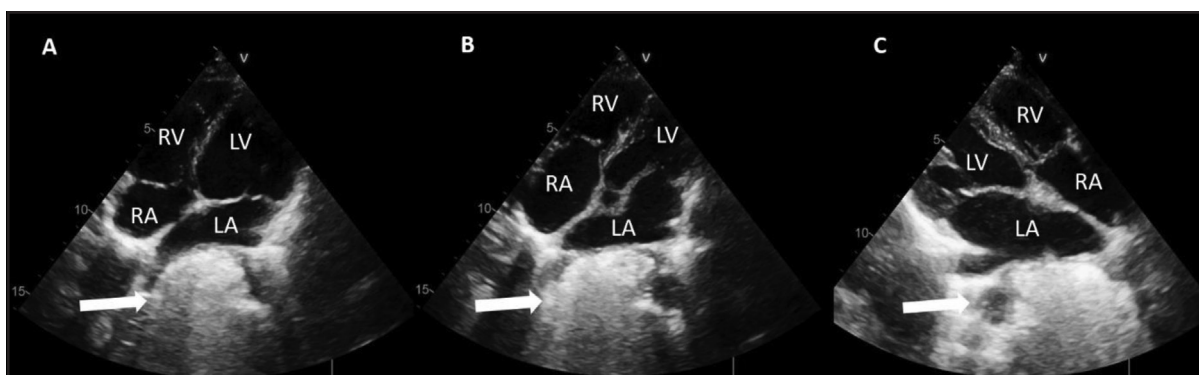


Figure 1: Transthoracic echocardiography showing a mass lesion (white arrow) compressing upon posterior wall of left atrium in apical 4 chamber view(A), apical 5 chamber view(B) and modified parasternal long axis view (C).

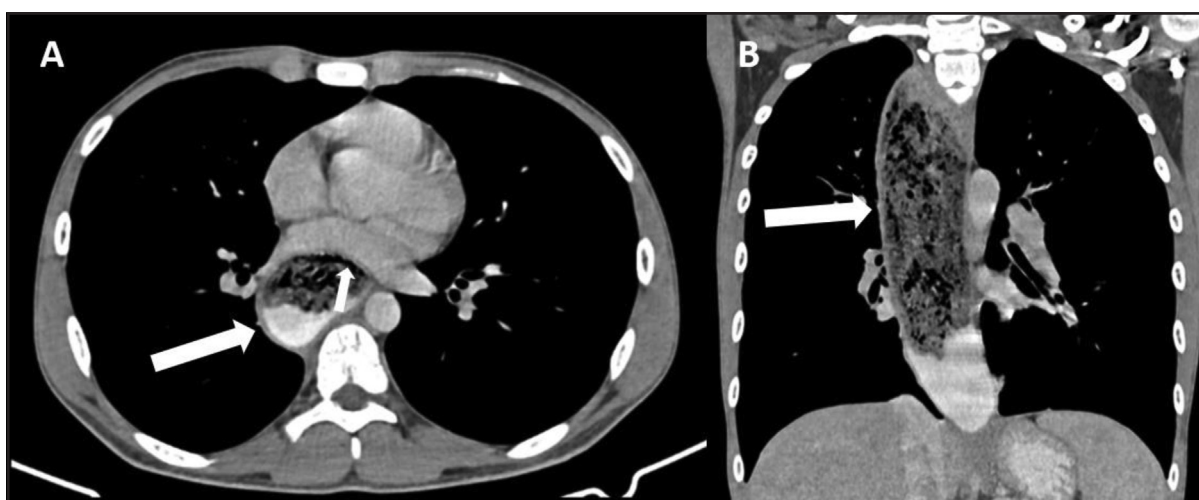


Figure 2: Axial (A) and coronal (B) CT images of chest showing grossly dilated esophagus with food residue (large arrow) causing compression upon posterior wall of left atrium (small arrow in A).

also been reported secondary to left atrial compression by achalasia [1].

Left atrial compression by achalasia cardia can be diagnosed by transthoracic echocardiography with the typical appearance of mobile echogenic contents suggestive of food debris. In addition, it has been shown that the ingestion of liquid containing carbon dioxide aids in the diagnosis of the dilated esophagus on echocardiography [1,2,4]. Contrast echocardiography can also be useful in differentiating dilated esophagus from a vascular structure [5].

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