

Case Report

A Curious Case of Elevated Left Diaphragm

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Case Presentation

A 62 year old male presented with complaints of dull aching left sided chest pain and post prandial fullness. Chest radiography showed large homogeneous soft tissue lesion with air locule in the left lower hemithorax. (Figure 1a) Axial contrast (Figure 1b) and sagittal and coronal CT scan images of the thorax and upper abdomen revealed defect in posterior part of left hemidiaphragm causing herniation of left kidney, splenic flexure of colon and omentum into the left hemithorax confirming the diagnosis of left sided bochdalek hernia with intrathoracic kidney (Figure 2a & 2b).

Bochdalek hernia is a congenital posterior lateral diaphragmatic defect that allows abdominal viscera to herniate into the thorax. The incidence of intra-thoracic kidney with Bochdalek hernia is less than 0.25% [1]. There exists either an abnormality in the pleuroperitoneal membrane fusion or high migration of the kidney due to delayed mesonephric involution [2].

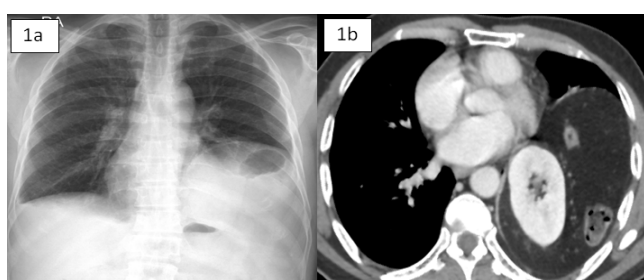


Figure 1: PA chest radiograph (figure a) shows large homogeneous soft tissue lesion with air locule in the left lower hemithorax silhouetting the left hemidiaphragm and causing mild contralateral mediastinal shift. Axial contrast CT of thorax (figure b) shows left kidney, splenic flexure of colon and omentum in left hemithorax up to level of heart.

Abstract

Elevated left diaphragm on chest radiography raises myriad possibilities including diaphragmatic palsy, eventration, left lingular/lower lobe collapse, air space consolidation, pleural effusion and pericardial fat pad, sequestration of the lung, mediastinal lipoma, or anterior mediastinal mass. In this communication we describe an unusual cause of elevated left diaphragm in an elderly patient.

Keywords: Hernia; Diaphragmatic; Radiography; Thoracic; Chest Pain; Herniorraphy; Ectopic kidney



Figure 2: Sagittal and coronal CT scan images of the thorax and upper abdomen revealed defect in posterior part of left hemidiaphragm causing herniation of left kidney, splenic flexure of colon and omentum in left hemithorax. Anterior part of left hemidiaphragm is intact (white arrow in figure a) with stomach and spleen is seen beneath it in its normal position (asterisk in figure b and c).

Diaphragmatic hernia though congenital can present for the first time in an adult and deserves attention in a symptomatic patient. Laparoscopic/open repair of symptomatic adult Bochdalek hernias can be performed successfully and may result in significant clinical improvement.

References

1. Donat SM, Donat PE. Intrathoracic kidney: a case report with a review of the world literature. J Urol. 1988; 140: 131-133.
2. Angulo JC, Lopez JI, Vilanova JR, Flores N. Intrathoracic kidney and vertebral fusion: a model of combined misdevelopment. J Urol. 1992; 147: 1351-1353.