

CASE REPORT

A RARE PRESENTATION OF BOCHDALEK HERNIA

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ABSTRACT: Bochdalek Hernia is a congenital condition characterized by protrusion of the abdominal organs into the thorax through the posterior defect in the diaphragm. Chest computed tomography is an important and efficient tool in confirming the diagnosis. Intrathoracic kidney in Bochdalek hernia is uncommon, many a times it is confused with a thoracic mass. It is very rare in adult population. In this case, a 41 year old male who had Bochdalek hernia with a kidney in the left side of the thoracic region is presented.

KEYWORDS: Bochdalek, hernia, intrathoracic kidney.

INTRODUCTION: Bochdalek hernia is a type of congenital diaphragmatic hernia that typically occurs in childhood, remains clinically silent and may present as life-threatening surgical emergencies during adulthood.^(1,2)

The incidence of intrathoracic kidney with diaphragmatic hernia is low (less than 0.25%).⁽³⁾

Incidence is approximately 1 in 2,200–12,500 live births, they are seen with much greater frequency on the left hemithorax and associated to a normal diaphragm. Intra-thoracic kidney is a very rare finding representing less than 5% of all renal ectopias,⁽⁴⁻⁸⁾ most are found in males and are asymptomatic.

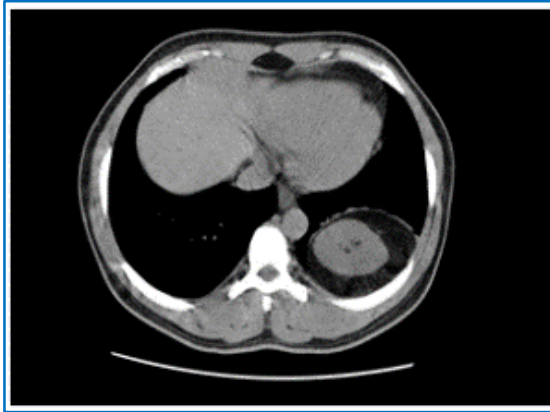
We report a case of a man who had a left thoracic kidney associated with left Bochdalek hernia.

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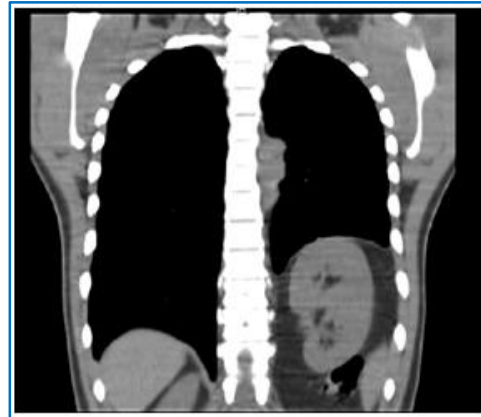


Fig. 1: X-Ray of chest showing intra thoracic mass

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**Fig. 2: CT scan of Thorax, sagittal cuts
Showing Intra thoracic kidney**



**Fig. 3: CT scan of Thorax, axial cuts
Showing intrathoracic kidney**

A 41 yrs old asymptomatic male who had gone to a medical fitness center for the purpose of employment abroad and had been denied fitness as he was found to have a homogenous opacity in the retro cardiac and the left lower zone of his chest x-ray, he came to our hospital for further evaluation.

On examination, patient was comfortable, vitals stable, no regional lymphadenopathy, chest was symmetrical and breath sounds were slightly diminished in left mammary, infra scapular, infra axillary area.

Routine blood investigations were normal, CT thorax revealed a large defect in the posterior hemi diaphragm (Bochdalek hernia) with herniation of left kidney along with retroperitoneal and omental fat into the left hemi thorax.

DISCUSSION: In 1940, Wolfromm reported the first case of clinically diagnosed intra thoracic kidney.⁽⁹⁾ In 1987, Donat found the abnormality to occur more commonly on the left (62%) than on the right side. 2% of patients had bilateral intrathoracic kidneys.⁽¹⁰⁾ In all of the reported cases, the kidney is located within the thoracic cavity and not in the pleural space.^(11,12)

Most hernias remain clinically silent until adulthood presenting as life-threatening surgical emergencies.⁽¹³⁾

The symptoms of hernia may be intermittent or constant, vague or distinct, depending on its presentation (30% strangulation risk), size, and content. Pulmonary symptoms include chest or shoulder pain, cough, shortness of breath, and/or dyspnea. Intrathoracic kidneys are usually asymptomatic, in contrast to pelvic kidneys, and are incidentally found on chest radiography.⁽³⁾

Four basic types of Intrathoracic Kidneys have been described⁽³⁾:

1. True thoracic ectopia with a normally developed dorsal diaphragm;
2. Eventration of the diaphragm;
3. Diaphragmatic hernia, either a congenital diaphragmatic hernia defect or acquired herniation;
4. Traumatic rupture of the diaphragm with renal ectopia.

Our patient did not have a history of trauma; therefore, he belonged to congenital diaphragmatic defect with herniated left kidney.⁽³⁾

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It is important to mention the complications of Bochdaleks Hernia in Adults and Children:

- Respiratory distress.⁽¹⁴⁾
- Incarceration in Bochdaleks hernia.⁽¹⁵⁾
- Rupture viscus (stomach and colon leads to pneumothorax).^(15,16)
- Obstructive uropathies.⁽¹⁵⁻¹⁷⁾
- Strangulation, bleeding and gangrene.⁽¹⁸⁾

Chest radiographs are not appropriate, CT scan and MRI would be better for diagnosing diaphragm defects.⁽¹⁹⁾ Intra-venous pyelography or renal scintigraphy usually clarifies the diagnosis. As such an incidentally detected intrathoracic kidney, which is asymptomatic, does not require any active intervention.⁽²⁰⁾

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