

Right-Sided Diaphragmatic Hernia in an Elderly Male

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ABSTRACT

Diaphragmatic hernia is rarely reported in elderly. Here we present a 90-year-old male patient suffering from respiratory symptoms with no prior history of trauma. Investigations showed diaphragmatic hernia on the right-side. Defect was anteromedial in position. The contents of the hernia were small and large gut. Considering multiple co-morbid it was decided not to operate on this patient.

Key words Diaphragmatic hernia, Geriatrics, Respiratory symptoms.

INTRODUCTION:

Diaphragmatic hernia after trauma is reported in 3-5% of patients. Rarely patients present without a history of trauma.¹ Right-sided hernias are less common owing presence of liver. Incidental finding of diaphragmatic hernia in elderly patient is unique. This report describes such a patient.

CASE REPORT:

A 90-year-old male, with known co-morbid of Ischemic heart disease, diabetes mellitus and hypertension, was evaluated for dyspnea for the past three years. Patient used to get exacerbations off and on, that get relieved on nebulization with bronchodilators. Patient also had history of extreme physical exertion, as part of his occupation, at least 10 years prior to the development of symptoms. There was no history of trauma, previous surgery, orthopnea or paroxysmal nocturnal dyspnea and heart burn. There was no complaint of dyspepsia, epigastric discomfort or vomiting.

Physical examination showed decreased breath sounds and auscultation of bowel sounds in the right hemithorax. X-ray chest showed an elevation of right hemidiaphragm with presence of bowel loops (Fig I). CT scan chest showed a defect in the anteromedial aspect of the diaphragm with herniation



Fig I: Chest X-ray (PA view) showing bowel loops in the right hemithorax.

of small bowel loops, along with the mesentery, and large bowel (Fig II, III). It was decided after careful consideration and discussion that surgical intervention may be hazardous for the patient.

DISCUSSION:

Diaphragmatic hernia is a transdiaphragmatic evisceration of the abdominal contents into the thorax.² It may be classified as congenital and acquired. Congenital diaphragmatic hernias are further classified as Morgagni (anterior) and Bochdalek (posterior) hernias. Acquired diaphragmatic hernias usually occur after blunt trauma. Tear is usually from the esophageal hiatus across the dome to left costal attachment of diaphragm. Left-sided diaphragmatic rupture is more common than right-sided. Patients with diaphragmatic hernia may present with

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Fig II: A CT scan topogram revealed bowel loops in the right hemithorax.

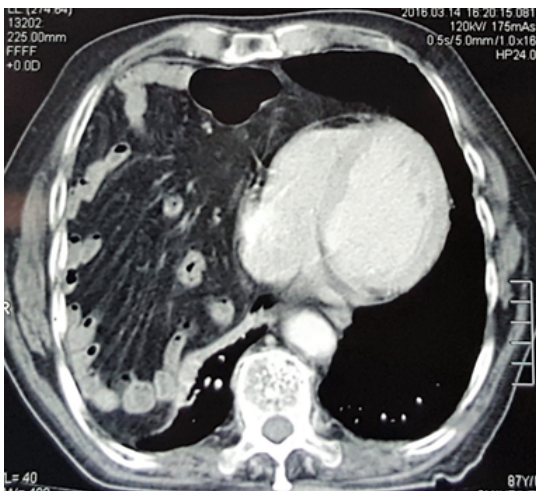


Fig III: An axial CT image showed small bowel loops along with its mesentery in the right hemithorax.

spectrum of symptoms and signs, ranging from minor chest/epigastric discomfort to major respiratory distress and intestinal obstruction from strangulation of the herniated contents.³

The common investigative modalities for detection of diaphragmatic hernias are chest x-ray and CT scan. Reported sensitivity of the CT scan in diagnosing diaphragmatic hernia ranges from 33% to 83%.⁴ On CT the most common findings are abrupt discontinuity of the diaphragm, herniation of abdominal contents into the thorax, and waist-like bowel constriction, known as the “collar sign”.⁵ MRI may demonstrate diaphragmatic disruption even more accurately than CT due to its multiplanar imaging capabilities.^{6,7} Early diagnosis still remains an issue.

It is very rare to find a diaphragmatic hernia in an adult with no prior history of trauma. To find a right-sided hernia, as is in our case, is rarer still. Contents of right-sided hernias are usually limited to liver, gall bladder, kidney and omentum.⁸ In our case, CT revealed an anteromedial defect in the diaphragm with small bowel, its mesentery and the large gut, all in the right hemithorax which has been very rarely reported previously. Almost invariably, such hernias present with strangulation but no such symptoms and signs were noted in our patient.

Our patient had no history of trauma or surgical intervention but history of extreme physical exertion was positive owing to the kind of occupation he had about 10 years back. If herniation is not diagnosed in the acute phase, the patient may enter an asymptomatic latent phase or develop chronic or intermittent gastrointestinal or respiratory symptoms.⁹ Presentation with gastrointestinal symptoms is more common in left-sided hernias, whereas respiratory symptoms predominate in the right-sided lesions.¹⁰ Patients can even survive infancy owing to a confining sac, with the rupture of the sac in later life triggering symptoms.²

The case being reported here is extremely rare. Not only is being a right-sided diaphragmatic hernia with late manifestation of symptoms, without any prior history of trauma, the herniated contents in the right hemithorax are those of small and large gut, which is rarer still. Moreover, the history of extreme physical exertion also opens up the possibility of development of diaphragmatic hernias in people involved in heavy weight-lifting which also needs to be further explored.

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Conflict of Interest:

The authors declare that they have no conflict of interest.

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