

Right Diaphragmatic Hernia in an Elderly Man

K. Mohan Manu, Aswini Kumar Mohapatra and Rahul Magazine

Department of Pulmonary Medicine, Kasturba Medical College Manipal, Manipal, Karnataka, India

[Indian J Chest Dis Allied Sci 2012;54:183-184]

CLINICAL SUMMARY

A 71-year-old male presented with progressive exertional breathlessness and cough for the last four years. His breathlessness aggravated after a heavy meal and on lying down. He was a smoker, but had no co-morbidities. He did not remember any major trauma or surgery. Examination of the respiratory system revealed mediastinal shift to the left, diminished breath sounds over the whole of the right hemithorax and gurgling sounds all over, mainly the infrascapular area. Examination of other organ systems revealed no abnormality.

INVESTIGATIONS

Routine haematological and biochemical parameters were normal. A chest radiograph (postero-anterior view; Figure 1) showed inhomogeneous opacity over the whole of the right hemithorax causing

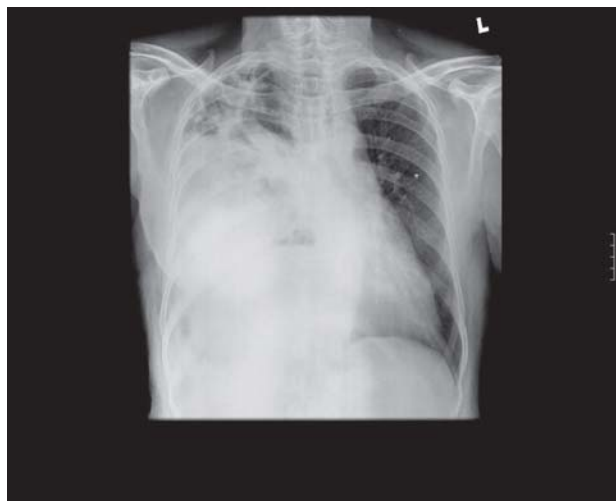


Figure 1. Chest radiograph (postero-anterior view) showing an inhomogeneous opacity extending over the whole of right hemithorax and causing contralateral shift of the mediastinum.

contralateral shift of the mediastinum. A right lateral chest radiograph (Figure 2) demonstrated opacification with haustrations, suggestive of bowel loops. A diagnosis of diaphragmatic hernia was considered.

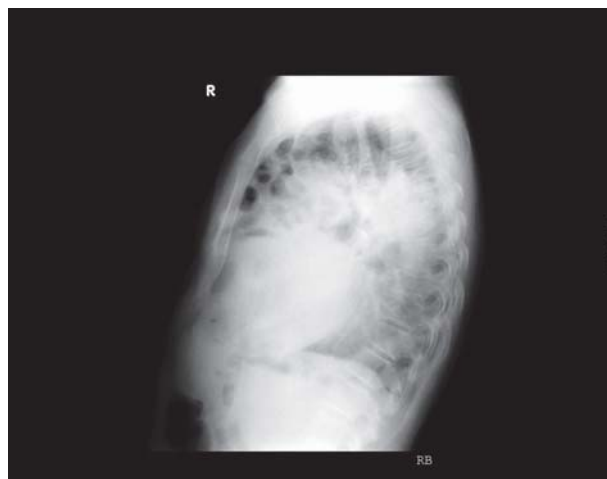


Figure 2. Chest radiograph (lateral view) showing an opacity with haustrations suggestive of bowel loops.

Ultrasound examination of thorax and abdomen revealed herniation of abdominal viscera into the right hemithoracic cavity. A contrast-enhanced computed tomography of chest (Figure 3) confirmed the diagnosis of diaphragmatic hernia, and an anterolateral defect in the central part of the right hemidiaphragm was evident with herniation of abdominal viscera into the right hemithorax extending up to the apex along with a shift of the trachea and mediastinum to the left and collapse of the middle and lower lobes of the right lung. The left lobe of liver, porta-hepatis, and gall bladder were herniating into the thoracic cavity with indentation on the posterior aspect of the liver by the diaphragmatic defect. The gastric pylorus, duodenum, small bowel and transverse colon were also seen inside the right hemithorax with attached mesentery. Except for the herniation, the bowel loops

[Received: September 12, 2011; accepted: November 9, 2011]

Correspondence and reprint requests: Dr K. Mohan Manu, Associate Professor, Department of Pulmonary Medicine, Kasturba Medical College Manipal, Manipal, Karnataka-576 104, India; Phone: 08202922294 (Off.), 9964896253; E-mail: manumohan73@gmail.com



Figure 3. Coronal reconstruction of the CECT thorax showing a defect in the right hemidiaphragm with herniation of the abdominal viscera.

and the liver showed normal enhancement.

The patient was not willing for surgical correction. However, the patient did not have any worsening of symptoms on follow-up.

DIAGNOSIS

Right diaphragmatic hernia

DISCUSSION

Diaphragmatic hernia results from a defect in the continuity of the diaphragm. Most common type of diaphragmatic hernia is hiatus hernia followed by

hernia of Bochdalek. In Bochdalek hernia, the pleuro-peritoneal canal persists, and it is commonly described in neonates. However, Bochdalek hernia in adults is uncommon. In Bochdalek hernia, the diaphragmatic defect is located posteromedially. But in the present case, it was an anteromedial defect. Apart from congenital malformation, trauma, both penetrating and blunt, may also lead to dehiscence of diaphragm followed by herniation.¹ Long standing hernias are usually asymptomatic unless complications like obstruction or volvulus of herniated bowel sets in. Common complaints encountered may be exertional breathlessness when intra-abdominal pressure increases. The diaphragmatic contractions may be ineffective because of the dehiscence and also due to pressure effect of herniated abdominal contents.² Other diaphragmatic pathologies like diaphragmatic eventration and paralysis also should be taken into consideration while investigating such cases. In both these conditions, the continuity of diaphragm will be intact, although thinning of musculature may be present in the former.

Surgical repair of the diaphragmatic defect is the definitive treatment of diaphragmatic hernia, especially when these are symptomatic.²

REFERENCES

1. Roberts HC. Imaging the diaphragm. *Thorac Surg Clin* 2009;19:431-50.
2. Sattler S, Canty TG Jr, Mulligan MS, Wood DE, Scully JM, Vallieres E, *et al*. Chronic traumatic and congenital diaphragmatic hernias: presentation and surgical management. *Canadian Respir J* 2002;9:135-9.