Delayed Presentation of Congenital Diaphragmatic Hernia

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ABSTRACT

Delayed presentation of congenital diphragmatic hernia is a rare condition which can present in later stage of life either with the nonspecific complains or acute complians of shortness of breath. The clinical features and the radiological findings can be confused with pneumothorax leading to inadvertant insertion of chest tube. Immediate and accurate diagnosis of the condition is required for the better outcome. Our case is an example of the condition where a patient presenting with features similar to pneumotharax without history of trauma ,the diagnosis of congenital diaphragmatic hernia should always be considerd.

KEY WORDS

Adult, Congenital diphragmatic hernia, Delayed presentation

INTRODUCTION

Diaphragmatic hernia is transdiaphragmatic evisceration of abdominal contents in to the thorax. About 5% to 30% of diaphragmatic hernias present beyond the neonatal period.[1] Although the mortality in this group is low, the morbidity may be significant. The late presenting congenital diaphragmatic hernia is a rare condition and poses considerable diagnostic challenges because of its varied presentation often resulting in diagnostic delay, inappropriate diagnosis and treatment leading to potential fatal outcome.

CASE REPORT

A 28 yrs male admitted in intensive care unit with the complain of acute onset of shortness of breath and generalized pain in abdomen. He gave past histroy of frequent dyspesia with heart burn which used to subside spontaneously and sometimes he had to take anti emetics and H2 antagonist. Chest x ray done six months back for the same didnot reveal any abnormality. He had no history of trauma, previous surgery or extreme physical exertion. On evaluation he was haemodynamically stable but tachypneic and SpO_2 was 85-88% on room air. His physical examination on admission revealed mild tenderness in the upper abdomen and absence of breath sounds in the left hemi thorax. The laboratory findings were unremarkable. The chest x ray (fig. 1) showed airfluid level in the left side with the divaition of mediastinum towards right side. With this background a diagnosis of pneumothorax was made and a chest tube was decided to put. But on surgical reveiw CT chest and abdomen was suggested which revealed a defect in the continuty of the dome of left diapgragm and presence of adominal content in the left hemithorax (fig. 2).

Laparotomy was performed through midline incision to repair the hernia. Approximately 4.5 cm defect was found in the posterolateral aspect of the diaphragm and stomach, transverse colon with omentum was found to ascend inside

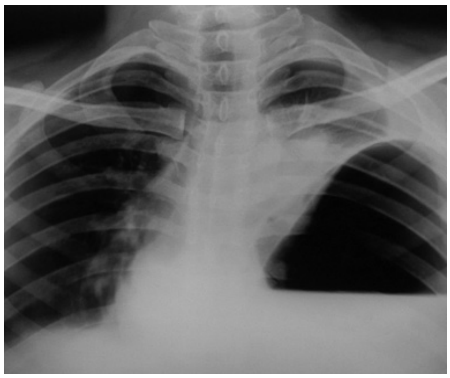

Figure 1. Chest X ray showing air fluid cavity in left hemithorax

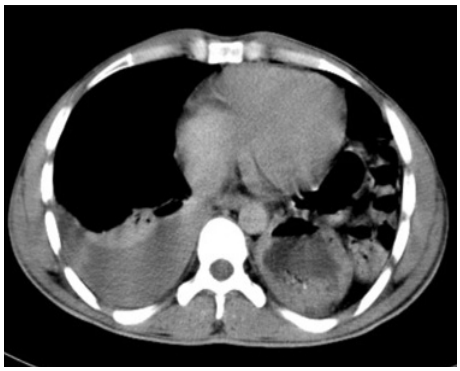

Figure 2. CT image showing visceral contents in the left hemithorax

left hemithorax through the defect. All the viscera were viable and were carelly reduce. Finally the defect was repaired with a continuous nonabsorable suture, leaving a chest drain in the left hemithorax. Postoperatively, the course of the patient was uneventful. Drain was removed in the third day and patient was finally discarged with follow up after 15 days.

DISCUSSION

A small percentage of congenital diaphragmatic hernia goes unrecognized into adulthood.[2] The adult presentation may be acute when the abdiminaal contents herniate into thoracic cavity or slow onset with nonspecific symptoms. The acute presentation can be misdiagnozed as pneumotharax and may lead to unnecesary emergency thoracocentesis.[3,4] In our case also the patient was initially suspected to be left sided pneumothorax on the basis of clinical sign and symptoms but the radiological investigation confirmed the diagnosis.

Late onset congenital diaphragmatic hernia can be diagnozed by various radiological methods. The simplest one is nasogastric tube insertion followed by a chest x ray. Abrubt discontinuation of the diaphragm and collar sign (a waist like bowel constriction) in the chest CT scan may be helpful to establish diagnosis. Other imaging tools which can be used for the diagnosis are ultrasonography, magnetic resonance imaging, and upper or lower gastrointestinal contrast studies.[5]

The asymtomatic hernias may go unnoticed for long as the imaging techniques may be unremarkabale.[6] The nonspecefic symtoms may lead to wrong diagnosis and the acute presentation can be confused with pneumothorax as in our case. The inappropriate insertion of a chest drain may result in serious consequences by damaging intra thoracic abdominal viscera.[7] The outcome is good when the accurate diagnosis is made immidiately and surgical repair is done. The possibility of late onset diaphragmatic hernia should always be considered in the patient with unusual features of pneumotharax without history of trauma. We suggest at least chest x ray after NG tube insertion and a CT scan should be done to establish the diagnosis in all the highy suspected cases. Our patient was fortunate that the problem was identified and repaired before the complicatiions could occur.

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