Post-Traumatic Diaphragmatic Hernia

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Abstract Post- traumatic diaphragmatic hernia is not an uncommon sequel. But lack of awareness of this condition may delay in diagnosis and result in life-threatening complications. CT scan is regarded as the investigative tool of choice but some prefer Barium studies in delayed cases of diaphragmatic hernia. Chest X- ray and Ultrasonography of the chest and abdomen may also help in arriving at a diagnosis. An awareness of the condition assisted by the radiological investigations will lead to an early diagnosis and treatment which ultimately helps in managing the patients with diaphragmatic hernias better.

Keywords Diaphragmatic hernia · Trauma · Radiological investigations

A 30 year old male patient was admitted with h/o severe pain upper abdomen for 3 days which started following lifting of a heavy weight. No associated vomiting or fever. Patient gives history of stab injury left side of the chest wall 3 years back from which the patient had uneventful recovery. On examination the patient had labored and fast breathing, pulse rate of 130/m, B.P. 110/76 mmHg. CXR showed an overtly elevated left hemi-diaphragm (Fig. 1). CT scan abdomen and thorax showed stomach and omentum herniating into the chest (Fig. 2). A diagnosis of diaphragmatic hernia was made. On operation most of the stomach along with greater omentum was found herniated into the chest through a small diaphragmatic defect on the left hemidiaphragm and was almost gangrenous. The hernia defect was

closed with non-absorbable suture. A near-total gastrectomy was performed and a Roux- en -Y end to side gastro-jejunostomy was done.

Discussion

Injuries to the diaphragm may be followed by immediate herniation of abdominal viscera into the chest. However it is widely accepted that herniation may be delayed [1, 2]. Males usually outnumber females [1] and only around

Fig. 1 CT scan thorax showing stomach and omentum herniating into the chest

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Fig. 2 Chest X-ray showing elevated left hemi-diaphragm

13% of the hernias are found on the right side [3]. To diagnose traumatic diaphragmatic hernia a high index of suspicion is required in patients with a history of trauma and herniated structures may be seen with radiological investigations such as chest radiographs, barium meal and barium enema studies [4]. CT scan has now been regarded as the diagnostic radiological tool of choice [5]. Once the

diagnosis is made, operation is mandatory. Most authors agree that traumatic diaphragmatic hernias with delayed presentation should be approached through the chest [1, 3] since the adhesions within the chest can be freed easily. The stomach and colon are the organs most commonly found within the chest [3, 6] due to their mobility and proximity to the diaphragm.

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