The characteristic manifestations of a posterolateral congenital diaphragmatic hernia are well recognized. In 1848, Bochdalek published his description of congenital posterolateral diaphragmatic hernia; and this type of hernia still bears his name though strictly speaking this is a misnomer(1). A high proportion (88%) of these defects are left-sided(2). A hernia on the right side differs from that on the left in its contents and also in clinical features. The present case report briefly describes the management of a right posterolateral hernia.

Case Report

A term newborn boy developed respiratory distress within six hours after birth. He was tachypneic with a respiratory rate of 80/min and appeared dusky. The breath sounds on the right side were diminished and dullness was present over the lower two-thirds of right chest. The abdomen was scaphoid. Arterial blood gas estimation revealed marked hypoxia with acidosis. Chest X-ray showed the presence of bowel gas pattern in the right hemithorax and displacement of mediastinum to left (Fig. 1). There was no evidence of pneumothorax. The left dome of diaphragm was normal—and the fundus gas shadow was seen in the abdomen. The rest of the abdomen

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revealed scarce bowel gas shadows. A diagnosis of a right diaphragmatic hernia was made and the child was operated upon as an emergency.

A trans-abdominal approach was taken and the abdomen was opened through a right sub-costal incision. The right lobe of the liver, jejunum, ileum and colon up to its left half had herniated into the right hemithorax. There were flimsy adhesions between the contents and the rim of the defect. The herniated bowel loops were distended and no sac was evident. The defect in the diaphragm measured 2 cm in diameter. The herniated viscera was reduced into the abdomen after adhesiolysis and the defect was closed with non-absorbable interrupted sutures. Intercostal drain was inserted and the peritoneal cavity was closed.

Discussion

The diaphragm develops by the fusion of the septum transversum, the pleuroperitoneal membranes and the dorsal mesentery of the esophagus with a later contribution from the thoracic wall. Posterolateral defects result from defective formation and/or fusion of the pleuroperitoneal membranes. The relative rarity of right sided lesions is related to the "earlier closure of right pleuroperitoneal opening(3) and to the protective effect of the liver developing in the septum transversum.

The right posterolateral diaphragmatic hernia can present as respiratory distress, intestinal obstruction, asymptomatic intrathoracic mass, or progressive liver herniation after birth. Only about one-fourth of the patients with a right-sided defect have respiratory distress in the newborn period(7). Older infants and children may have chest pain or recurrent respiratory tract infections(5,8,10). Herniated intestines can lead to intermittent obstruction and, rarely, strangulation(8,9). Delayed herniation of liver is also noted(11,12). Liver herniation may not take place until late adult life(13). Acute, life-threatening respiratory distress commonly seen in neonates with left posterolateral hernia, rarely occurs with right sided hernias(12).

Both thoracic and abdominal surgical approaches have been advocated for the repair of right posterolateral hernias (5,14,15). The advantages of a transthoracic approach are an easier resection of the hernial sac when present, and lack of postoperative intestinal adhesions. A trans-abdominal approach allows correction of co-existing intra-abdominal anomalies such as malrotation and creation of a ventral hernia whenever required.

Prognosis of the lesion depends upon, the amount of viscera herniated, location of liver, pneumothorax, hypoplasia of the lung and time of diagnosis after birth. Prenatal herniation of liver into hernial contents, leads to severe pulmonary hypoplasia from prolonged compression(16).

REFERENCES


Giant Rugal Hyperplasia of the Stomach: Menetrier's Disease

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Menetrier's disease is an uncommon clinical entity, marked by protein losing enteropathy and hypertrophic gastropathy that has predilection for the proximal portion of stomach(1). The entity in the pediatric age group is known as "Pediatric Hypertrophic Gastropathy" which signifies

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