

## LETTER TO THE EDITOR

## Pancreas as a Content in Congenital Diaphragmatic Hernia: A Rarity

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## **DEAR SIR**

The incidence of Congenital Diaphragmatic Hernia (CDH) is reported to be approximately 1 in 2,000 to 4,000 births. The small bowel, stomach, spleen and colon are the most frequently herniated organs.[1] Pancreas as a content is seldom reported a case of CDH. We report a case where pancreas was incidentally found during the repair of a left sided CDH in a neonate.

A 2-day-old full term female neonate (2.3kg) presented with respiratory distress since birth. No antenatal scan was available. On examination, the vitals were stable and the baby was maintaining saturation with oxygen support. There were decreased breath sounds on the left side with a shift of the apex beat to the right. On abdominal examination, child had a scaphoid abdomen. Chest x-ray showed bowel loops in the left chest cavity with a right shift of the cardiac shadow (Fig.1). The ABG analysis was normal at the time of admission. Surgery revealed a posterolateral defect measuring 3cms with a totally deficient posterior lip of the diaphragm. The contents, consisted of the entire colon and a major portion of the small bowel, were slowly reduced. On closer examination, it was found that the pancreatic tissue was present in the thorax partly adherent to the intercostal muscles. Pancreas was partially separated from the intercostal muscles and reduced into the abdominal cavity with moderate traction (Fig.2). The anterior lip of the diaphragm was sutured to the posterior intercostal muscles with propylene suture. No intercostal drain was kept. Patient tolerated the procedure well and her postoperative recovery was uneventful. On follow-up, she was doing well.

This case reports a rare finding of pancreas as a content in a Left CDH. Most cases described in the literature are reported in adults or older children.



Figure 1:Chest X-ray showing herniation of bowel loops into left hemithorax with mediastinal shift.



Figure 2: Intra-operative photograph of the defect showing pancreas as a content (being reduced).

Bochdalek described autopsy of a patient with CDH, found pancreas as a content.[2] Cuschieri in 1981 described a case of an incarcerated bochdalek hernia in a 19 year old student which presented as acute pancreatitis.[3] Few reported it as a content of

para-esophageal/hiatal hernia.[4-6] Parkash et al [7], reported pancreas as a content of CDH in a neonate. This entity usually presents as acute or chronic pancreatitis or with a chest mass. However, it is an exceedingly rare diagnosis. A small undetected CDH in the neonatal period may present later in childhood with acute pancreatitis. Also those operated early may be prone to pancreatitis in future owing to the anatomic abnormalities. This is in addition to the usually anticipated long term complications. Hence, such patient should be closely followed up and any episode of pain abdomen later should point to the probability of pancreatitis. We are also following our patient on these lines.

**Consent:** Authors declared that they have taken informed written consent, for publication of this report along with clinical photographs/material, from the legal guardian of the patient with an under-standing that every effort will be made to conceal the identity of the patient however it cannot be guaranteed.

**Authors' Contribution:** All the authors contributed fully in concept, literature review, and drafting of the manuscript and approved the final version of this manuscript.

## REFERENCES

- Halamek LP, El-sayed YY. Congenital diaphragmatic hernia: The perinatalogist 's perspective. Pediatr Rev. 1999; 20: e67-e70 DOI:https://doi.org/10.1542/pir.20-10-e67
- Ogata H, Oshio T, Ishibashi H, Takano S, Yagi M. Heterotopic pancreas in children: Review of literature and report of 12 cases. Ped Surg Int. 2008; 24:271-5.
- Cushieri RJ, Wilson WA. Incarcerated Bochdalek hernia presenting as acute pancreatitis. Br J Surg. 1981; 68:669.
- Kafka NJ, Leitman IMTJ. Acute pancreatitis secondary to incarcerated Paraesophageal hernia. J Surg. 1994; 115:653–5.
- Chevallier P, Peten E, Pellegrino C, Souci J, Motamedi JP, Padovani B. Hiatal hernia with pancreatic volvulus: A rare cause of acute pancreatitis. Am J Roentgenol. 2001; 177:373-4.
- Wang J, Thaker AM, El-nachef WN, Watson RR. Transhiatal herniation of the pancreas: A rare cause of acute pancreatitis. ACG Case Rep J.2017; 4:e66.
- Mandhan P, Saied A Al, Ali MJ. A triad of congenital diaphragmatic hernia, Meckel 's diverticulum, and heterotopic pancreas. Case Rep in Pediatrics. 2014;1–4