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Left Congenital Diaphragmatic Bochdalek's Hernia – A Case Report

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Abstract
Introduction *: Congenital diaphragmatic hernia is a rare developmental defect of diaphragm Most common in childhood and rare in adult. Bochdalek hernia is the most common type*
Case report : *A 27 years old female came to casualty with complaints of vomiting for 3 days, sudden in onset, non projectile, bilious. History of left upper abdominal pain for 3 days. History of breathlessness for 3 days. History of decreased food intake present. No history of trauma.*
Discussion : *Congenital diaphragmatic hernia most commonly occurs on the left side of diaphragm than right. Most common organs to herniate are stomach, ileum, colon, spleen, pancreas, liver (on right side). Complete eventration occurs on left side (1) and rare on right side (2)*
Conclusion : *Surgery is indicated for both symptomatic (2) and asymptomatic patients (3,4,5)with primary closure of defect.*

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I. Introduction

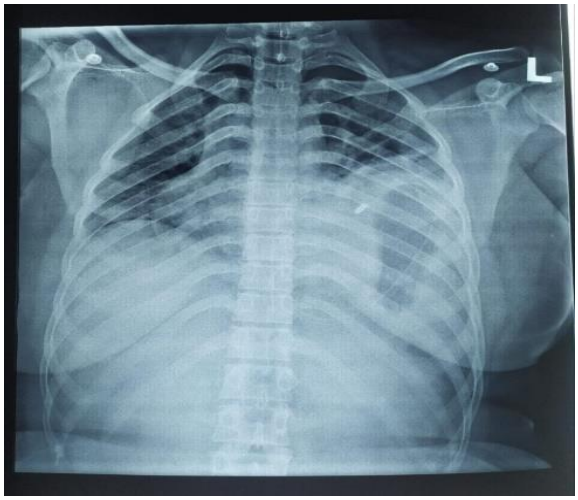
Congenital diaphragmatic hernia is a rare developmental defect of diaphragm, characterized by herniation of abdominal contents into chest resulting in pulmonary hypoplasia and pulmonary hypertension. Depending on location of defect its classified into Bochdalek hernia (posterior-lateral part of diaphragm) - most common type of about 70% to 75% with majority being on left side with prevalence of about 1 in 2200 births (6) and 5% to 10% in adult (7) and Morgagni hernia (defect in antero-medial part of diaphragm) – accounts for about 20% to 25% and Central hernia account for 2% to 5%. Bilateral defect are extremely rare and associated with poor prognosis. (8)

II. Case Presentation

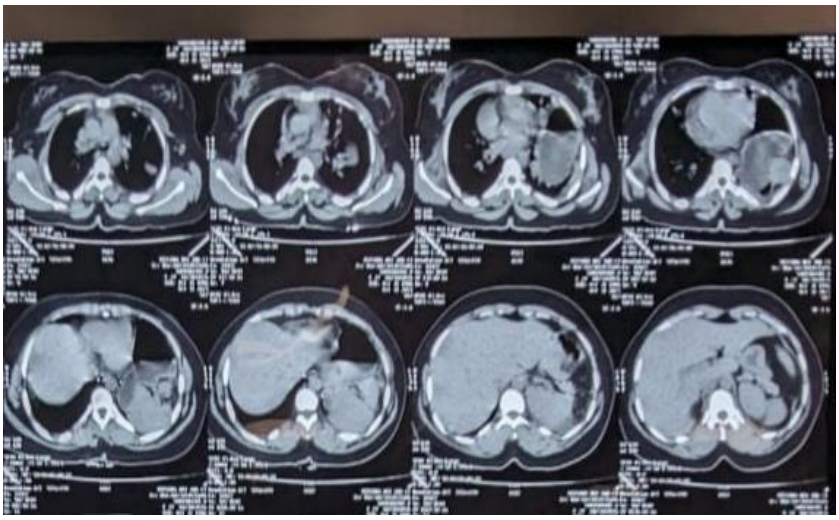
A 27 years old female came to casualty with complaints of vomiting for 3 days, sudden in onset, non projectile, bilious.
History of left upper abdominal pain for 3 days. History of breathlessness for 3 days
History of fever for 3days, intermittent, low grade
History of decreased food intake present
No history of cough, altered bowel habits

No history of any trauma
Vitals : Pulse: 131/min BP: 130/80mmHg Spo2: 90% @room air RR: 24/min
Systemic examination
RS: absent air entry on left lower lobe
Per abdomen: soft, tenderness present over epigastrium, left hypochondrium region, bowel sound sluggish

Routine blood investigation were with normal limits except elevated total counts: 17490cells/cumm and CRP: 155mg/dl
Chest xray showed collapsed left lower lobe of lung

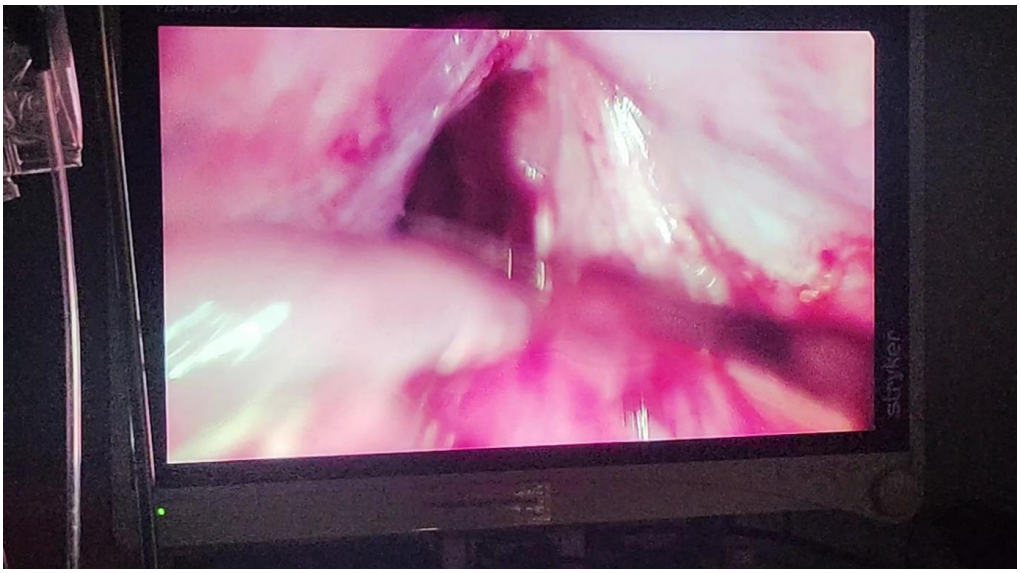


CECT abdominal and pelvis showed defect of size 6.1cm anteroposterior dimension and 6.5cm in transverse diameter on postero lateral part of diaphragm with cranial displacement of left hypochondrial structures including stomach, spleen and tail of pancreas with sub pleural atelectasis of the left lung inferior lingular segment



Patient taken up for Laparoscopy with left side thoracoscopy converted to open laparotomy with reduction of herniated contents and primary repair of left diaphragmatic hernia under general anaesthesia.

Intraoperative finding
Defect of size 6x6cm present in left side posterior aspect of diaphragm
Herniation of stomach, lesser sac, tail of pancreas, spleen to left side of thorax
Left side lower lobe lung was collapsed
Left side pleural effusion (minimal)
Spleen adherent to the diaphragm with bands
Saponification of omentum seen
Acute pancreatitis features and calcification noted in tail of pancreas, with normal head and body of pancreas



III. Discussion

Congenital diaphragmatic hernia in adult present with complaints of chest pain, breathing difficulty, abdominal pain, rarely intestinal obstruction (9). Two third of asymptomatic cases have been found to on right side and its due to liver (10) which prevents herniation of other organs. Laparoscopic is the preferred mode of treatment. When defect is less than 10cm – primary closure is done and if more than 10cm prosthetic reinforcement is needed.

IV. Conclusion

Congenital diaphragmatic hernia in adult is uncommon form of diaphragmatic hernia. Laparoscopic is preferred – primary closure with or without mesh placement. Other treatment modalities are laparotomy, thoracotomy, thoracoscopy, or laparoscopy (11,12).

References

[1] T. V. Thomas, "Congenital Eventration Of The Diaphragm," The Annals Of Thoracic Surgery, Vol. 10, No. 2, Pp. 180–192, 1970.
[2] M. Al-Emadi, H. Ismail, M. A. Nada, And H. Al-Jaber, "Laparoscopic Repair Of Bochdalek Hernia In An Adult," Surgical Laparoscopy And Endoscopy, Vol. 9, No. 6, Pp. 423–425, 1999.
[3] B. K. P. Goh, M. C. C. Teo, S.-P. Chng, And K.-C. Soo, "Rightsided Bochdalek's Hernia In An Adult," American Journal Of Surgery, Vol. 194, No. 3, Pp. 390–391, 2007
[4] M. Swain, A. Klaus, S. R. Achem, And R. A. Hinder, "Congenital Diaphragmatic Hernia In Adults," Semin
[5] G. D. Rice, C. J. O'boyle, D. I. Watson, And P. G. Devitt, "Laparoscopic Repair Of Bochdalek Hernia In An Adult," Anz Journal Of Surgery, Vol. 71, No. 7, Pp. 443–445, 2001
[6] J. M. Swain, A. Klaus, S. R. Achem, And R. A. Hinder, "Congenital Diaphragmatic Hernia In Adults," Seminars In Laparoscopic Surgery, Vol. 8, No. 4, Pp. 246–255, 2001
[7] D. S. Thoman, T. Hui, And E. H. Phillips, "Laparoscopic Diaphragmatic Hernia Repair," Surgical Endoscopy And Other Interventional Techniques, Vol. 16, No. 9, Pp. 1345–1349, 2002
[8] R. Prasad, J. Nath, And P. K. Mukerji, "Eventration Of Diaphragm," Journal Of The Indian Medical Association, Vol. 84, No. 6, Pp. 187–189, 1986.
[9] A. Alam And B. N. Chander, "Adult Bochdalek Hernia," Medical Journal Armed Forces India, Vol. 61, No. 3, Pp. 284–286, 2005.
[10] R. Marleta, "Diaphragmatic Anomalies," In Swenson's Textbook Of Paediatric Surgery, J. G. Raffensperger, Ed., Pp. 721–735, Appleton And Lange, New York, Ny, Usa, 5th Edition, 1990.
[11] D. Weissberg And Y. Refaely, "Symptomatic Diaphragmatic Hernia: Surgical Treatment," Scandinavian Cardiovascular Journal, Vol. 29, No. 4, Pp. 201–206, 1995.
[12] N. T. Liem And L. A. Dung, "Thoracoscopic Repair For Congenital Diaphragmatic Hernia: Lessons From 45 Cases," Journal Of Pediatric Surgery, Vol. 41, No. 10, Pp. 1713–1715, 20