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ADULT BOCHDALEK HERNIA PRESENTING IN LATE LIFE AS RESPIRATORY DISTRESS: A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT
Background: Bochdalek hernia is a congenital posterolateral diaphragmatic defect usually diagnosed in neonates. Adult presentation is rare and often incidental or misdiagnosed. Symptomatic cases require surgical repair due to the risk of visceral herniation and volvulus.
Case Report: A 68-year-old female presented with respiratory distress. Contrast-enhanced computed tomography (CECT) revealed a posterior defect in the left hemidiaphragm with herniation of the gastric fundus into the thoracic cavity and associated lower lobe atelectasis. The patient underwent successful laparoscopic reduction of the herniated stomach and primary suture repair of the diaphragmatic defect. Intra-operative findings correlated with pre-operative imaging. Post-operative recovery was uneventful.
Conclusion: Although congenital in origin, Bochdalek hernia may present late in life. CECT is diagnostic, and laparoscopic repair is safe and effective even in elderly patients.

KEYWORDS: Bochdalek hernia, diaphragmatic hernia, laparoscopy, gastric herniation, adult presentation

INTRODUCTION

Bochdalek hernia is a congenital defect in the posterolateral diaphragm resulting from failure of closure of the pleuroperitoneal membrane during fetal development. It is commonly diagnosed in neonates presenting with respiratory distress. Adult presentation is rare and frequently incidental.
Symptomatic adult Bochdalek hernia is clinically significant due to the risk of gastric volvulus, respiratory compromise, and strangulation of abdominal viscera. With increasing use of CT imaging, more cases are now identified in adults.(1,2)

Case Report

A 68-year-old female was evaluated for respiratory distress. CECT of the abdomen and thorax revealed:

- Posterior defect in the left hemidiaphragm
- Herniation of the gastric fundus into the thoracic cavity
- Left lower lobe subsegmental atelectasis

No other abdominal or vascular abnormalities were detected.
The patient underwent elective laparoscopic surgery. Intra-operative findings included herniation of the stomach through a posterior diaphragmatic defect with adhesions to thoracic structures. The stomach was reduced into the abdominal cavity and the defect was closed with primary sutures.
The post-operative course was uneventful.

Imaging Findings

CECT demonstrated a clear discontinuity in the left hemidiaphragm with intrathoracic herniation of the gastric fundus (Figure 1).

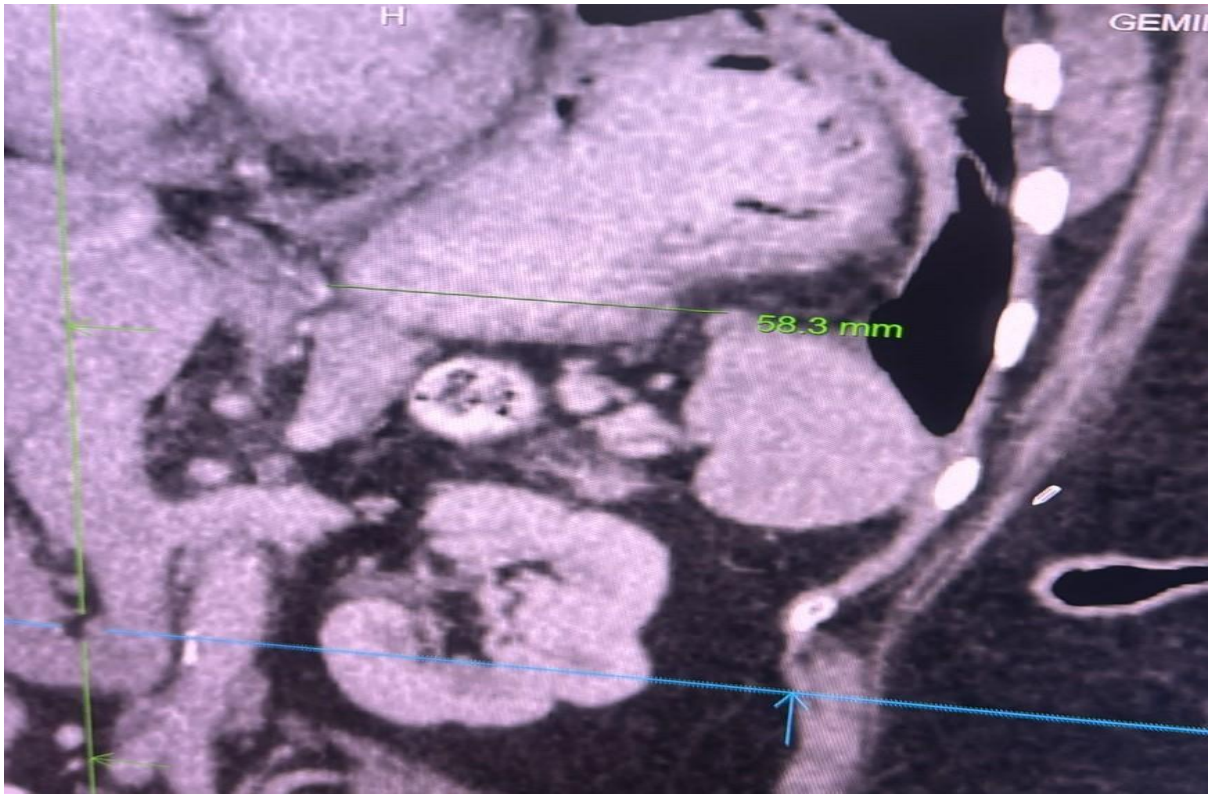

Figure 1: CECT showing posterior defect in left hemidiaphragm with herniated gastric fundus.

Operative Findings

Laparoscopy confirmed the posterior diaphragmatic defect and herniated stomach (Figure 2). After reduction, primary sutured closure of the defect was performed (Figure 3).

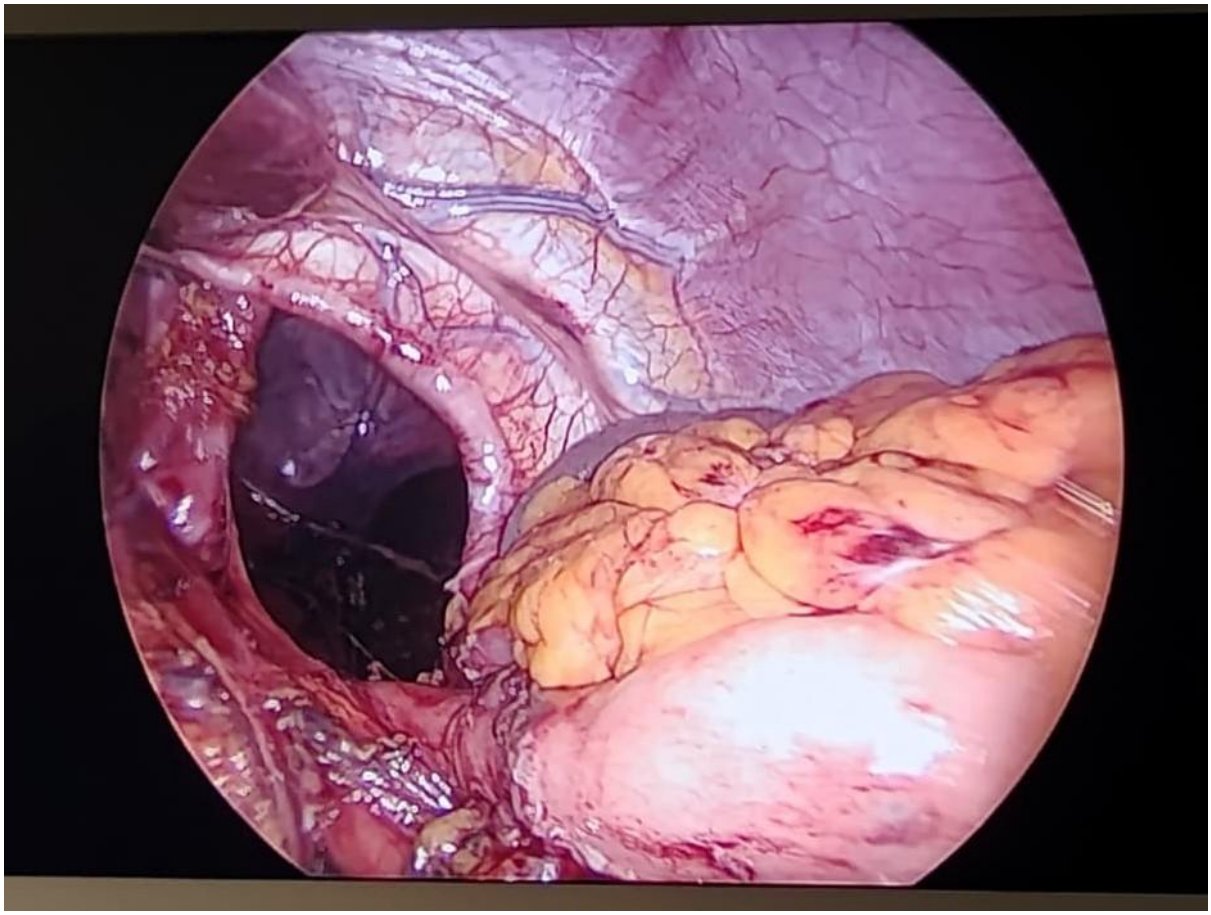

Figure 2: Intra-operative view showing diaphragmatic defect.

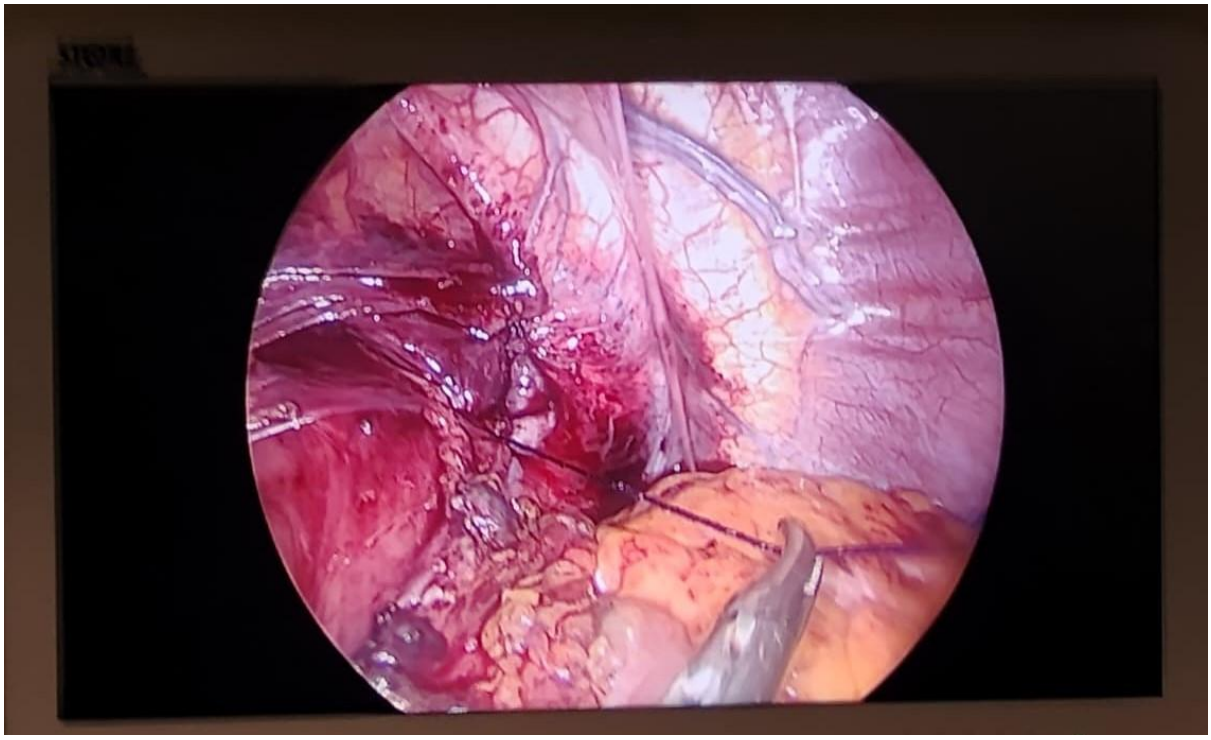

Figure 3: After reduction of hernia and closure of defect.

DISCUSSION

The defect in Bochdalek hernia arises from failure of closure of the pleuroperitoneal canal during fetal life. Adult presentation suggests the presence of a small congenital defect that enlarges over time (3-6)

The reported incidence in adults ranges from 0.17% to 6% in CT-based series, with the majority being asymptomatic. Symptomatic cases, although rare, can present with abdominal pain, breathlessness, chest discomfort, or acute gastric volvulus.(7)

CT imaging is the gold standard for diagnosis as it clearly demonstrates diaphragmatic discontinuity, herniated viscera, and associated lung compression.

Historically, these hernias were repaired through laparotomy or thoracotomy. Currently, laparoscopic repair is preferred due to reduced morbidity, faster recovery, and superior visualization of the defect.

CONCLUSION

Adult Bochdalek hernia, though congenital, may present late in life with respiratory symptoms. Early diagnosis with CECT and minimally invasive laparoscopic repair provides excellent outcomes and prevents life-threatening complications.(8-10)

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