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# Congenital Diaphragmatic Hernia (Bochdalek Type) Diagnosed in Adulthood: A Case Report

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**Abstract** **Case Report**

Congenital diaphragmatic hernia (CDH) diagnosed in adulthood is a rare condition, often revealed by non-specific symptoms. We report the case of a 45-year-old chronic smoker presenting with epigastric pain evolving over three years. Chest radiography was unremarkable, whereas thoracoabdominal computed tomography revealed a left posterolateral diaphragmatic hernia containing omental fat, without signs of visceral compromise. The patient underwent surgical repair through an upper midline laparotomy. Intraoperative findings revealed a 5 cm left diaphragmatic defect containing omentum with multiple omento-diaphragmatic and omento-pleural adhesions, requiring difficult adhesiolysis prior to reduction and closure of the defect using interrupted non-absorbable sutures. The postoperative course was uneventful. This case highlights the limitations of imaging in assessing adhesions and emphasizes the importance of considering the chronicity of the hernia when selecting the surgical approach.

**Keywords:** Congenital diaphragmatic hernia, adult, Bochdalek, adhesions, laparotomy.



## INTRODUCTION

Congenital diaphragmatic hernia (CDH), particularly the Bochdalek type, is a developmental anomaly resulting from failure of fusion of the pleuroperitoneal membranes during embryogenesis. It is usually diagnosed in the neonatal period due to severe respiratory distress associated with pulmonary hypoplasia [1].

Diagnosis in adulthood is rare, accounting for less than 10% of reported cases [2]. In these late-presenting forms, clinical manifestations are often atypical, including nonspecific digestive or respiratory symptoms, or even complete absence of symptoms [3].

We report a case of Bochdalek congenital diaphragmatic hernia diagnosed in an adult presenting with chronic epigastric pain, and discuss the diagnostic and therapeutic aspects in light of the literature.

## CASE PRESENTATION

A 45-year-old male, a chronic smoker (25 pack-years), with no significant past medical or surgical history, presented with epigastric pain evolving over three years, without vomiting, dyspnea, or other digestive or respiratory symptoms.

Clinical examination revealed a patient in good general condition, afebrile and eupneic, with a soft, non-tender abdomen. Cardiopulmonary auscultation was unremarkable.

Chest radiography showed no abnormalities. Thoracoabdominal computed tomography demonstrated a left posterolateral diaphragmatic hernia measuring approximately 5 cm, containing omental fat, with no evidence of visceral ischemia.

A diagnosis of late-presenting Bochdalek congenital diaphragmatic hernia was established, and surgical management was indicated.

**The patient underwent upper midline laparotomy**.

Intraoperative exploration revealed a 5 cm left diaphragmatic defect containing omentum with multiple omento-diaphragmatic and omento-pleural adhesions.

A difficult adhesiolysis was performed, allowing complete release of the omentum, followed by its reduction into the abdominal cavity.

The diaphragmatic defect was closed using interrupted non-absorbable sutures (silk No. 1) under direct visualization. A Valsalva maneuver was

performed throughout the closure to ensure airtight repair and prevent residual pneumothorax.

**No thoracic drain was placed**

The postoperative course was uneventful, with return of bowel function on postoperative day 2 and discharge on day 4. At six-month follow-up, no recurrence or complications were observed.

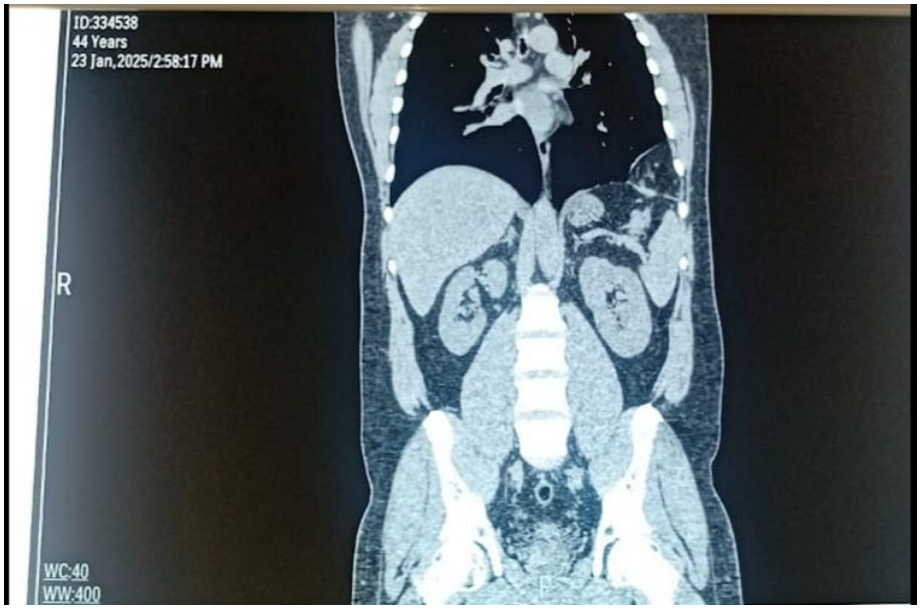


**Figure 1: left posterolateral diaphragmatic hernia measuring approximately 5 cm, containing omental fat, with no evidence of visceral ischemia**

## DISCUSSION

Congenital diaphragmatic hernia diagnosed in adulthood is a rare entity, most commonly represented by Bochdalek hernia, typically located posterolaterally and predominantly on the left side [2,4]. Unlike neonatal cases, it may remain asymptomatic for years or present with nonspecific clinical manifestations, leading to delayed diagnosis [3]. In our case, isolated epigastric pain illustrates this atypical presentation.

Chest radiography may be normal, particularly when the hernia contains only fat or limited structures [5]. Thoracoabdominal computed tomography is the gold standard for diagnosis, allowing precise identification of the diaphragmatic defect and its contents, as well as guiding therapeutic strategy [5]. In our case, the exclusive omental content led to the selection of an abdominal approach.

Surgical repair is recommended in all adult cases due to the risk of acute complications such as strangulation [4]. However, the choice of surgical approach remains controversial. The abdominal approach is generally preferred when the hernia contains abdominal viscera or omentum, as it allows easy reduction and full exploration of the abdominal cavity [2].

Nevertheless, in late-presenting cases, chronic herniation often leads to the formation of adhesions between herniated structures and intrathoracic components. For this reason, several authors advocate a thoracic approach, which provides better exposure and facilitates adhesiolysis [3,4].

In our case, despite apparently simple findings on imaging, intraoperative exploration revealed multiple omento-diaphragmatic and omento-pleural adhesions, making adhesiolysis technically challenging. This highlights the limitations of computed tomography in assessing adhesions, especially in long-standing hernias. Therefore, although the abdominal approach was justified based on imaging, the chronicity of symptoms could have supported consideration of a thoracic approach.

Diaphragmatic repair typically involves direct closure using non-absorbable sutures [4]. The Valsalva maneuver is useful to ensure airtight closure. The use of thoracic drainage remains controversial and should be decided based on intraoperative findings.

Overall prognosis is excellent following surgical repair, with low recurrence rates when closure is adequately performed [2].

## CONCLUSION

Congenital diaphragmatic hernia diagnosed in adulthood is a rare condition, often revealed by atypical or nonspecific symptoms. Diagnosis relies primarily on thoracoabdominal computed tomography, although this

modality may underestimate the presence of adhesions in chronic cases.

Surgical treatment is mandatory, and the choice of approach should be individualized, taking into account not only the hernia content but also its presumed chronicity. Our case highlights that significant adhesions may be present despite apparently simple imaging findings, potentially making the abdominal approach more challenging and supporting consideration of a thoracic approach in selected cases.
The prognosis is generally favorable following appropriate management.

**Conflict of Interest:** The authors declare no conflicts of interest.

**Authors' Contributions:** All authors have read and approved the final version of the manuscript.

## REFERENCES

1. Mullins ME, Stein J, Saini SS, Mueller PR. Imaging of congenital diaphragmatic hernias in adults. AJR Am J Roentgenol. 2001;177(2):363–367.
2. Brown SR, Horton JD, Trivette E, Hofmann LJ, Johnson JM. Bochdalek hernia in the adult: demographics, presentation, and surgical management. Hernia. 2011;15(1):23–30.
3. Kassaï B *et al.,* Congenital diaphragmatic hernia in adults: a case report. Pan Afr Med J. 2020; 36:353.
4. Thomas S, Kapur B. Adult Bochdalek hernia: clinical features, management and results of treatment. Jpn J Surg. 1991;21(1):114–119.
5. Tokumoto N *et al.,* Laparoscopic repair of Bochdalek hernia in an adult: report of a case. Surg Today. 2008;38(10):961–965.