A Case of Congenital Diaphragmatic Hernia (Morgagni hernia) – A Case Report

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Introduction

• Congenital Diaphragmatic Hernia (CDH) occurs in 1 in 3000 newborns. ¹
• Majority occurs through the left posterolateral foramen of bochdalek and commonly these patients are symptomatic at birth. ¹
• Hernia through the foramen of Morgagni which occurs in the anterior midline through the sternocostal hiatus of the diaphragm is rare in children.
• It occurs in only 1% - 6% of all types of CDH.²
• Bochdalek hernia is the most common type of congenital diaphragmatic hernia. Anteromedial or Morgagni hernia is the least common variety, accounting for only 1–3% of all diaphragmatic hernias ¹,³.
• It is caused by a defect in the retrosternal region of the diaphragm and is considered to occur due to failure of fusion in the anterior part of the pleuropertitoneal membrane and deficiency in the process of muscularization ⁴.
• Morgagni hernia is congenital. However, there were some patients that had previous normal radiography suggesting that these hernias may be acquired through a congenital diaphragmatic defect ⁵.
• Morgagni hernia is more common on the right side, at the level of the seventh rib on either side of the xiphoid, in a space where the superior epigastric vessels pass; defects may also occur on the left, at the midline, or bilaterally; that on the left side is referred to as Larrey hernia ⁶.
• From one-third to more than half of patients are asymptomatic. These patients may be found incidentally when a chest X-ray undertaken for investigating unrelated problems ⁷.

Materials And Methods (Case Report)

• A 2 year old female presented with recurrent upper respiratory tract infection.
• On clinical evaluation bilateral (left>right) lower zone crepitations were heard, with other systems being unremarkable.
• A chest radiography (PA/LAT) revealed congenital diaphragmatic hernia.
• Contrast computer tomography revealed a Morgagni hernia, an anterior defect on the left side.
• Patient underwent Laparoscopic assisted repair of the defect, post operative period being uneventful.

Fig 1: Shows the the defect along with the content
Fig 2: Shows the dissection of the contents

Fig 3: Depicts the defect after clearance of the contents
Fig4: Closure of the defect primarily

Fig5: Final picture after the closure of the defect
Fig 6: Post-operative chest X-Ray

Conclusion

- In the Morgagni hernia, named after the Morgagni who first described it in 1761, the peritoneum and the abdominal contents pass upward through this space into the thoracic cavity.
- The defect in the diaphragm is generally located on the right side (90%) or bilaterally (7%), occasionally it may be on the left side, as the presence of heart and pericardium are barrier against herniation, it is more common in males.
- Mortality rate ranges from 40–60%.
- The rarity of this CDH and the non-specific symptoms may lead to a delay in diagnosis, particularly in childhood.
- This case report focuses on its rarity in affecting the left side and the need for early diagnosis and treatment.

References