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AGENESIS OF THE LEFT HEMI-DIAPHRAGM, THE UNDERLYING CAUSE OF A NEGLECTED DYSPNEA IN A 65-YEAR-OLD FEMALE; CASE REPORT AND LITERATURE REVIEW

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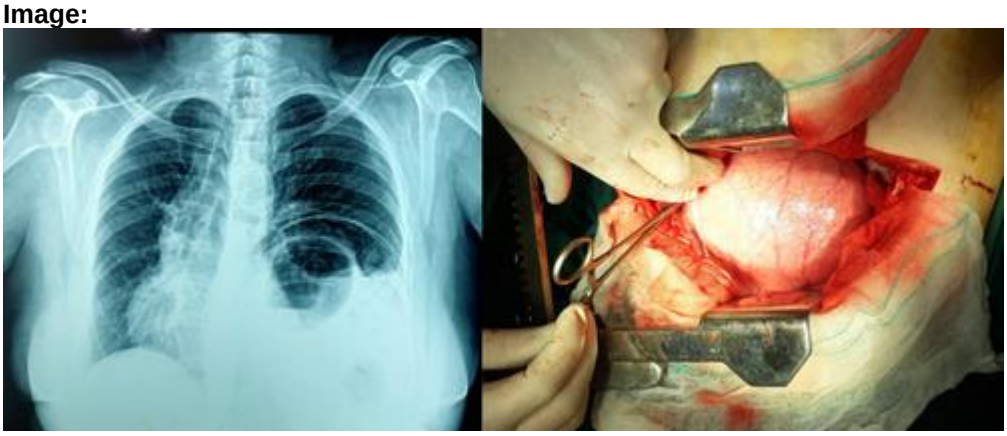
Introduction: The diaphragmatic membrane, on its complex way of embryonic devolvement, can be involved with various disorders that may partially or completely not develop. Agenesis of the diaphragm is the term that refers to this maldevelopment. Most affected neonates do not live more than hours to days for the severity of lung immaturity. However, less than 30 cases have been reported so far that survived childhood, and even their adulthood period was treated surgically or conservatively.
Materials & Methods: Having reported a case of left hemi-diaphragmatic agenesis in a 65-year-old female, we reviewed the cases reported since 1948 in the literature.
Results: The patient was presented to the surgery center complaining of exacerbated dyspnea during the recent four months. Although not cyanotic, she was incessantly complaining of being suffocated. Notably, besides tachypneic clear respiratory sounds at the right hemithorax, bowel sounds were heard from the base to the half of the left hemithorax with decreased left-sided air entry. Thus, the patient with the preoperative diagnosis of left unilateral diaphragmatic herniation underwent surgery. The initial symptoms reoccurred after four months. Renewed evaluations such as chest x-ray were representative of recurrent hernias. Axial chest CT scan without contrast was performed in which the absence of a diaphragmatic remnant was proved. In the second operation, after the left lateral thoracotomy in the seventh intercostal space and getting into the hemithoracic cavity, the surgical team encountered vestiges of a very thin and loose membrane separating thoracic and abdominal cavities. The majority of the stomach and spleen, splenic flexure, and the length of the jejunum were found in the left thoracic cavity beside a hypoplastic lung. With the final diagnosis of diaphragmatic agenesis, the existing defect was repaired by the construction of a new diaphragm using a dual mesh synthetic patch and fixed anterolaterally, posteriorly, and medially with mediastinal fascia. After fixating of the mesh, the left lung was inflated with high positive pressure, and a chest drain tube was inserted. The control x-ray confirmed the neodiaphragm in its proper position without intrathoracic herniation of digestive system organs. The postoperative recovery and follow-up duration have been uneventful for two years now.
Image:



Conclusion: It is difficult to diagnose diaphragmatic agenesis intraoperatively, and no modality is available to help the examiner physician diagnose perinatally.
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