

# Right-sided congenital diaphragmatic hernia associated with hepatopulmonary fusion and Congenital pulmonary malformation

Athary Saleem



## ABSTRACT

**Background:** Congenital diaphragmatic hernia is defined as patent pleuroperitoneal canal through the diaphragm. CDH can be divided into two types, anteromedial retrosternal hernia (Morgagni hernia), and the posterolateral hernia (Bochdalek hernia). Right-sided CDH that is associated with hepatopulmonary fusion is considered as rare congenital anomaly. In the literature review, there is only 32 reported cases of hepatopulmonary fusion. The prevalence of hepatopulmonary fusion in right sided congenital diaphragmatic hernia is 3 in 1000 infants.

**Case summary:** A 5 days old baby boy, was born full term to a 41-year-old mother. He was delivered by spontaneous vaginal delivery with birth weight of 3.4 kg and the (APGAR) scores was 7 and 9. Immediately after delivery, he developed respiratory distress and admitted to neonatal intensive care unit. The infant was treated with nasal oxygenation, intravenous fluids, and parenteral antibiotics. Then, chest X-ray was done, showing right-sided CDH. Computed tomography was done to differentiate between CDH and eventration. Chest fluoroscopy was performed and suspicion raised between right-sided CDH and right eventration. After patient stabilization, right thoracoscopy was performed during which the right lung found to be adherent to the liver. Thoracoscopy was carried out and there were many adhesions. So, it was decided to proceed to thoracotomy to separate the liver from lung, which was technically challenging. There was also shared vasculature between the liver and the lung in addition to the fusion. The atelectatic part of the lung was dissected with the rim of the liver in order to be able to repair CDH. Gore-Tex mesh was used in order to close the huge diaphragmatic defect.

**Conclusion:** The detection of the right hepatopulmonary fusion that is combined with right-sided CDH was considered as novel intraoperative finding in the presence of Bochdalek hernia.

## BIOGRAPHY

Athary Saleem is graduated of bachelor degree of medical sciences from faculty of medicine, Kuwait University. Currently, she is final year medical student who will be awarded her doctor of medicine degree on December 2021.

Ms. Saleem is interested in genetics, surgery, neurology and cardiology and involved in research projects related to those fields such as thyroid carcinogenesis, cardiac physiology, and pediatric surgery. She is member of medical education and leadership club at Kuwait university. Also, she was participated in various scientific and academic events and presented many posters. Ms. Saleem had published a case report in Journal of Pediatric Surgery Case reports.

Beside research and clinical activities, she volunteers in health awareness campaigns related to chronic diseases, breast cancer, and other health conditions. She plans to continue her role with enthusiasm as a health educator, research leader, and lifelong learner for better patient's care.

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