

A Rare Case of Severe Respiratory Failure in the Newborn: Congenital Diaphragmatic Hernia

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Congenital diaphragmatic hernia (CDH) is a congenital defect in the closure of the pleural-peritoneal canal and the abdominal organs are herniated into the fetal chest cavity. Prognosis depends on the time of onset of symptoms, localization, and association with other anomalies.^[1] CDH occurs every 2000–4000 births, constitutes 8% of all congenital anomalies and has a high mortality rate.^[2]

He was born by a spontaneous vaginal route at 40th gestational week from a 26-year-old mother. He was intubated and referred to our clinic due to respiratory distress and decreased saturation. There was no spontaneous breathing,

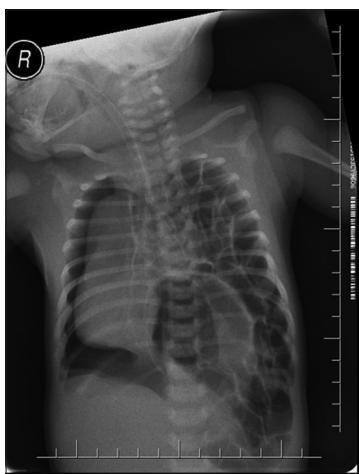


Figure 1: The posterior-anterior chest X-ray showed that the bowel loops herniated into the left hemithorax, completely filling the hemithorax, and the mediastinum was significantly displaced to the right



Figure 2: Chest X-ray taken after the patient was operated

respiratory sounds on the left decreased, capillary filling time was prolonged, and the abdomen was depressed. The posterior-anterior chest X-ray (posteroanterior [PA] and acromioclavicular [AC]) showed that the bowel loops herniated into the left hemithorax, completely filling the hemithorax, and the mediastinum was significantly displaced to the right [Figure 1]. The patient was operated by pediatric surgery and a control PA AC film was taken [Figure 2]. The patient was given mechanical ventilator treatment, appropriate fluid and electrolyte support, dopamine, norepinephrine, bicarbonate, and antibiotic treatments, but the patient died due to pulmonary hypoplasia at the 20th post-operative hour.

The mortality of CDH varies according to the clinical situation. Delivery of the cases with prenatal diagnosis in

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centers capable of extracorporeal membrane oxygenation reduces mortality, prenatal diagnosis is important in this respect. Studies on fetal surgery and lung transplantation are underway for future treatment of CDH.

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