

## **PROGNOSTIC FACTORS IN CONGENITAL DIAPHRAGMATIC HERNIA IN NEONATES. CLINICAL CASE SERIES AND LITERATURE REVIEW.**

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**Background:** Congenital diaphragmatic hernia is one of the most serious congenital disorders, associated with a high mortality and morbidity. Despite improvements in perinatal diagnosis and treatment, mortality rates from congenital diaphragmatic hernia remain high at 30–70% for 1 year outcomes. Analyzing prognostic factors, improving treatment strategies are the most important steps in higher survival rates for newborns with CDH. Aim of the study: To analyze clinical cases of neonates born with CDH. To perform a detailed analysis of the literature, find out what are the factors in the prognosis of CDH.

**Case Report:** Clinical cases of four neonates born with CDH were collected, analyzed and compared. Results: The condition of all neonates after birth was very severe. All neonates had a left-sided hernia, all underwent CDH repair. 3 out of 4 neonates died despite maximal medication and surgery. 3 neonates, who did not survive, were in severe condition from birth due to respiratory failure, heart failure, especially severe pulmonary hypertension, their postoperative course was complicated. The neonate, who did survive, did not have pulmonary hypertension.

**Conclusions:** Factors in the prognosis of neonatal CDH: diaphragmatic hernia size, localization, time of diagnosis, ultrasound fetal lung-head ratio, liver protrusion through diaphragmatic defect, neonatal birth weight, 5 min. APGAR score, progressive pulmonary hypertension, postoperative course of diaphragmatic plastic, application of ECMO.

**Keywords:** Congenital diaphragmatic hernia (CDH), prognostic factors, pulmonary hypertension, Extracorporeal membrane oxygenation (ECMO).