LETTER TO EDITOR

Congenital diaphragmatic hernia in neonates: challenging its pathophysiology and survival boundary

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To the editor

Newborn care has an essential place in the public agenda within the sustainable development goals, as it seeks to reduce the rate of preventable deaths and decrease morbidity due to the significant consequences it can have on long-term well-being and development (1). Neonatal mortality shows the level of prenatal care and newborn care in a given region, indicating the impact of intervention programs. According to the Peruvian Ministry of Health, the leading causes of neonatal mortality are prematurity, infections, asphyxia, and congenital malformations (2).

Congenital malformations are a health problem worldwide, being one of the main causes of death, chronic diseases, and disabilities (3). The World Health Organization estimates that more than 300,000 newborns die each year from congenital malformations, mainly within the first four weeks of birth (4).

Congenital Diaphragmatic Hernia (CDH) is one of the best-known congenital malformations, characterized by a defect in the diaphragm, leading to protrusion of abdominal contents into the thoracic cavity, interfering with the normal development of the lungs (5). This surgical pathology challenges physiology in both prenatal and postnatal stages. Due to its complexity originating in the early stages of fetal development, it leads to conditions such as pulmonary hypoplasia and pulmonary hypertension, determinants in neonatal mortality based on anatomical severity, and pathophysiological implications (6). Additionally, patients with CDH face long-term health complications, including respiratory problems, nutritional problems, neurodevelopmental delays, CDH recurrences, and orthopedic deformities (7).

Although it is a pathology of great importance, there are no precise epidemiological figures due to the lack of specific databases, for example, the unknown mortality of unborn cases (fetal deaths), stillbirths, and cases of neonatal death before referral to centers with a higher level of care (4).

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