

Prenatal Diagnosis and Neonatal Outcomes in a National Referral Center for Congenital Diaphragmatic Hernia (CDH) in South America. Santiago, Chile.



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INTRODUCTION

Prenatal diagnosis of congenital diaphragmatic hernia has improved over the years, as well the prediction of survival. This is relevant to decide the best place to be born due the need of advanced ventilatory support. In Chile, termination of pregnancy for the diagnosis of severe CDH was not available until 2018, even available, due to cultural reasons, is a rare option for patients. FETO is not performed in our center due to late gestational age at referral and the absence of trained specialists.

The objective of this study is to describe the prenatal diagnosis and neonatal outcomes of patients with diagnosis of CDH delivered in a referral national tertiary center in Chile.

Methods

Retrospective study of patient's data. Variables studied were gestational age at prenatal diagnosis, LHR O/E, fetal MRI, genetic studies. Neonatal outcomes described were gestational age of delivery, neonatal weight, need of extracorporeal membrane oxygenation (ECMO) and overall survival according to severity.

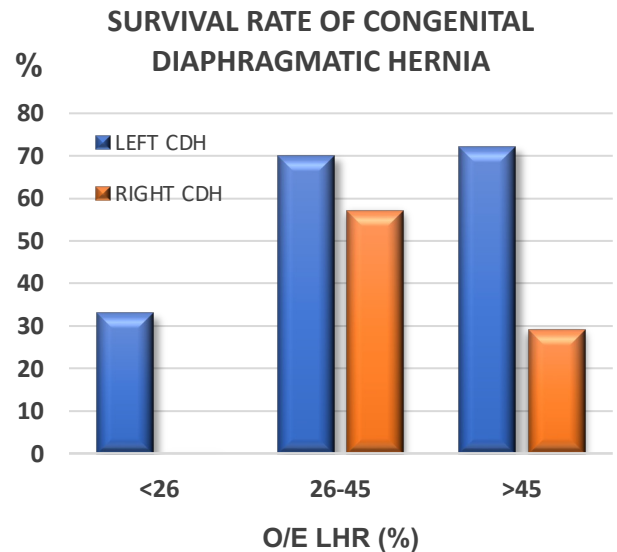
Results

We reviewed 88 patients from 2012 to 2023, who were evaluated prenatally and delivered in our center. Demographics: maternal age (14-42 yo, media 29.5), gestational age at diagnosis (13-36 weeks, media 23); primiparous 48.8%. CDH side: left 84%, right 14%, bilateral 1% (1 case); liver up 53/88 (60%); isolated 64/88 (73%), other malformations 24/88 (27%) more often cardiac abnormalities. Fetal karyotype in 38/88 was performed, with one case of tetraploidy.

Fetal MRI was performed in 66/88 (75%) . Media gestational age to referral was 30 weeks. Extreme severe cases (LHR O/E <15%) was found in 2/88 patients.

Neonatal outcomes: gestational age at delivery 30-41 weeks (media 38.3 weeks), preterm delivery <37 weeks 14/88 (16%) , birth weight: 1512-3930 g, weight <2500g 13/88. 16 patients needed ECMO (12 cases with liver up, only one right side), survival in ECMO 5/16 (31%).

Overall survival 56/88 (64%) left side 51/75 (68%) , right side 6/15 (40%). Survival rate (left side) according LHR O/E: <=25% 3/9 (33%), 26-45% 28/40 (70%), >45% 18/25 (72%). Survival rate (right side) according LHR O/E: <=45% 4/7 patients, >45% 2/7 patients. 16 patients needed ECMO (12 cases with liver up, only one right side), survival in ECMO 5/16 (31%).



CONCLUSION

This data shows the results of a national referral center in Chile with a 64% overall survival, which is higher than the one described previously in Latin American countries. Our results don't differ from what has been described according to prenatal predictors of survival. To be born in a referral center with highly neonatal expertise (ECMO center) improves the chance of survival of fetuses with CDH.