

Starting a fetal surgery centre: the first year experience

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DOI: 10.36129/jog.2022.S72

Objective. Report on the first year experience on fetoscopy in a pediatric referral centre.

Materials and Methods. Between June 2021 and August 2022, 52 fetal surgery procedures were performed, including 33 fetoscopies.

Results. Fetoscopy was used to perform laser-coagulation of placental anastomosis in 18 monozygotic pregnancies with twin-to-twin transfusion syndrome (TTTS). In 15/18 cases (83%) there was the association of a severe selective fetal growth restriction (estimated fetal weight < 3rd centile) and a ductus venosus absent/reverse a-wave, was associated). The survival rates of both and at least one twin at discharge were 33% (5/15) and 80% (12/15) respectively. Brain MRI was normal in all patients. In addition, fetoscopy was successfully

performed in 8 cases with Congenital Diaphragmatic Hernia (6 left and 2 right). The balloon was removed fetoscopically in all cases except one (spontaneous deflation after 3 weeks). The median duration of the procedures was 15 min (10-30). The median duration of tracheal occlusion was 3.4 weeks (27.9-34.6). Median gestational age at delivery was 34.3 weeks (29.6-38.4). Premature rupture of membranes < 34 weeks occurred in 20% of laser and 35% of TO. No maternal complications occurred.

Conclusions. Although our cases are still limited since the center has just recently started its activities, our experience respects the required criteria for a fetal surgery center to fulfill the standards of care established in literature: specialized skills based on clinical experience, strict protocols and multidisciplinary team.