

Myelomeningocele fetal surgery by mini-hysterotomy at a maternity school in São Paulo:

case series and obstetric, maternal-fetal and neonatal outcomes

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This is a retrospective study evaluating the first 11 patients who underwent intrauterine fetal surgery for correction of this defect, from September 2021 to January 2025 at the Municipal Hospital and Maternity School of Vila Nova Cachoeirinha in São Paulo, Brazil. We describe the obstetric, maternal-fetal and neonatal outcomes.

The mean gestational age at the time of the procedure was 25.3 weeks. Five cases started at L3, four at L4, one at L5, and one at S1. The surgery to delivery interval was 60.9 days, and the mean gestational age at birth was 32.9 weeks. The main obstetric complications were preterm labor in 36.4% and premature rupture of membranes in preterm infants in 27.3%. Reversal of brainstem herniation was observed in 100% of fetuses by ultrasound within 6 weeks. The integrity of the hysterorrhaphy was preserved in 63.6% of cases, with only mild scarring in the remainder. There were no cases of uterine rupture, only 2 cases of omental adhesion to the scar area. The average birth weight was 1919g, and the average Apgar score at 1 minute was 6.8 and at 5 minutes was 8.2. The most frequent neonatal complications involved respiratory and neurological involvement, without deaths. Only 3 cases (27.7%) required a shunt after birth.

In our center, intrauterine surgery by mini-hysterotomy did not present intraoperative complications. Benefits such as the reversal of brainstem herniation were reiterated. The most frequent obstetric complications were preterm labor (PTL) and preterm premature rupture of membranes (PROM). The main adverse neonatal outcomes resulted from prematurity and factors associated with the neurological pathology itself. Our data are comparable to the literature, with an incidence of complications consistent with newer centers.

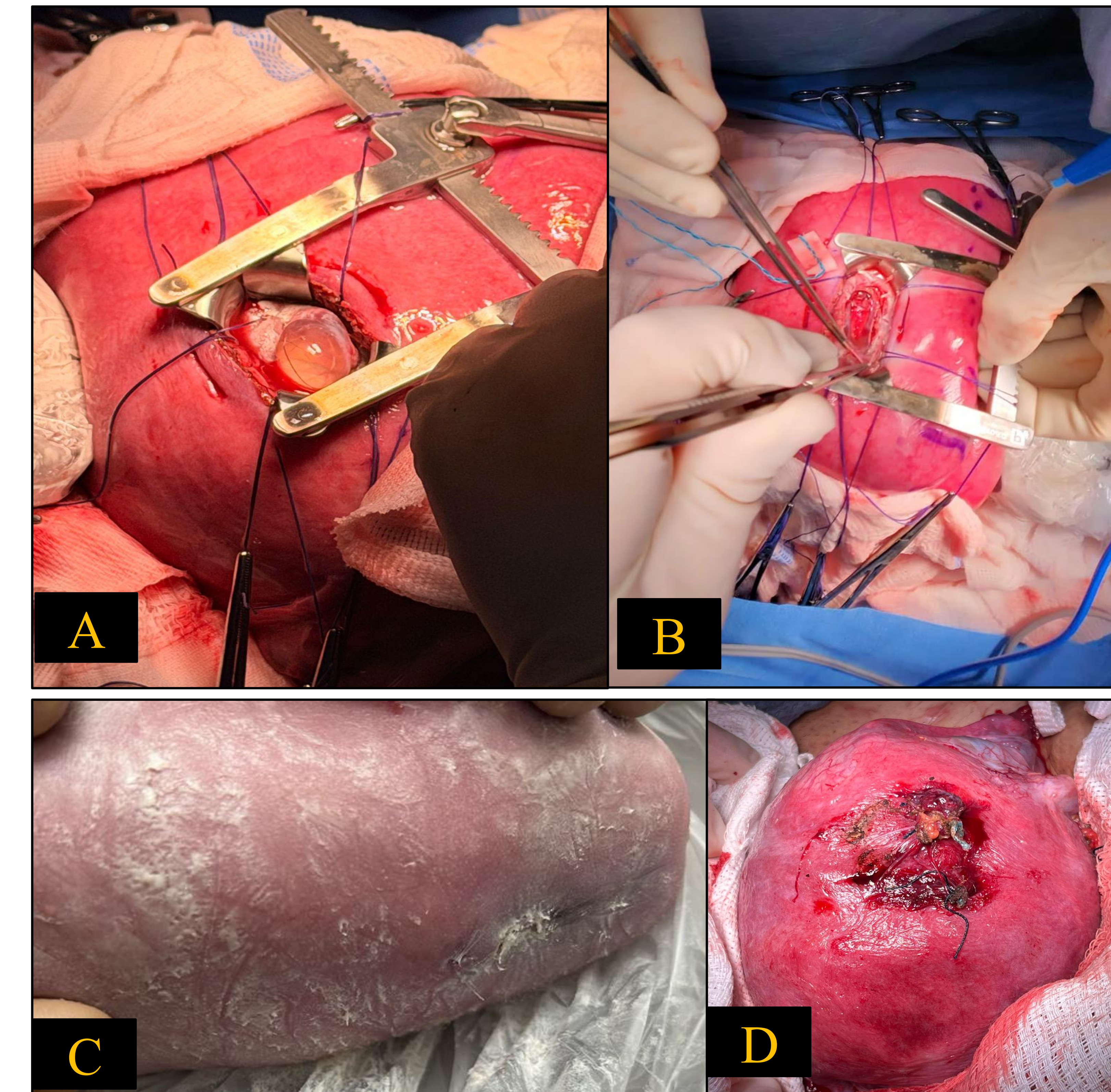


Figure 1: (A) Fetal myelomeningocele exposed (B) Correction by mini-hysterotomy technique (C) Neonatal scar (D) Postpartum uterine scar