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Objective
To determine risk factors for Preterm Rupture of the Membranes (PROM) or preterm delivery (PTD) after prenatal myelomeningocele (MMC) repair complicated by chorioamniotic membrane separation (CAS).

Methods
Retrospective cohort study
91 fetuses underwent prenatal MMC repair
Weekly ultrasound (US) scans after the surgery until 32 weeks, and then twice weekly US scans.

Evolution of CAS was determined based on the severity of CAS at detection and at last scan prior to delivery as increasing, decreasing or stable.

Premature rupture of the membranes (PROM) and preterm delivery (PTD) were defined when occurring before 37 weeks.

Results
31/91 patients (34%) were diagnosed with CAS of any degree at any time after the repair. There was no association between the severity of CAS and its evolution with the risk for PROM and PTD.

Cases detected <30 weeks (after a fetoscopic or an open repair), increased the risk of preterm delivery by 15.7 times (CI95 [2.3-106.3]).

Severity degree was classified based on the detachment of the amniotic cavity.

Figure 1. CAS: Severity degree

Figure 2. Relation between CAS severity and outcomes

Figure 3. Relation between CAS evolution and outcomes

Figure 4. Relation between CAS detected <30 weeks of gestation (WG) and perinatal outcomes

Conclusion
Earlier diagnosis of CAS was associated with higher rates of preterm delivery and PROM.