Fetal arachnoid cysts and perinatal outcome
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Objective
To investigate the natural history, associated abnormalities and outcome in 23 fetuses diagnosed antenatally with arachnoid cyst and to correlate ultrasound and MRI findings.

Methods
A retrospective study of all cases antenatally detecting fetal arachnoid cysts was performed in patients referred to our unit between 2005 and 2014. Associated abnormalities, additional MRI findings, pregnancy outcome and postnatal follow up were recorded.

Results
Fetal arachnoid cysts were diagnosed in 23 fetuses, of whom fifteen were female. The median gestational age of diagnosis was 27+5 weeks (range: 19+2-30+3 weeks). A total of 15 were suprasellar while 6 were located in the posterior fossa and 2 were at the temporal lobe. In 18/23 cases fetal MRI was performed in addition, and confirmed brain compression in 6 out of 10 cases. In only one patient major anomalies (ventriculomegaly and rhombencephalosynapsis) were found on ultrasound and this pregnancy was terminated. Two pregnancies ended by cesarean section due to fetal distress. There was no perinatal mortality. Two children had endoscopic fenestration of the cyst in their first week of life. None of these children needed additional interventions. All but one had a favourable outcome and one had visual impairment.

Conclusion
The majority of arachnoid cysts diagnosed in the second trimester of pregnancy are of benign origin without the need of surgical intervention before birth. The absence of other associated anomalies and normal karyotype had a favorable postnatal outcome. MRI serves as a complementary tool in the differential diagnosis.