MRI versus ultrasound in diagnosis of fetal pathologies
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Objective
To compare the accuracy of ultrasound versus MRI in the diagnosis of fetal pathologies and to establish which has a higher diagnostic yield.

Methods
This is a retrospective review of three different types of fetal malformations (Sacrococygeal teratoma type III, diaphragmatic hernia and vermian hypoplasia). Ultrasound scans and MRI were compared with neonatal and surgical findings.

Results
1- Sacrococygeal teratoma type III: MRI reported an intestinal and medullary canal involvement, which were reported in the resection surgery. 2- Diaphragmatic hernia. Both ultrasound and MRI reported the left diaphragmatic hernia with the left chest occupied by intestinal loops and ascended stomach. Right deviation of cardiac structures, abdominal liver were good predictors of lung hypoplasia. However, the severity of the large defect which increased the risk of early neonatal death could not be predicted. 3- Vermian hypoplasia: Both ultrasound and MRI reported low vermian hypoplasia, and the MRI also suggested a posterior fossa arachnoid cyst or bag Blake cyst. Neither of the imaging techniques could diagnose Joubert syndrome, a condition which was diagnosed with postnatal MRI.

Conclusion
In the cases studied, the MRI diagnosis was not superior to that of ultrasound. Although MRI images have greater definition, the intrinsic difficulties of fetal exploration and professional experience may limit its use. Its diagnostic utility lies on its effectiveness as a supplementary imaging technique in CNS pathologies, but we need to review greater number of cases in order to establish the definite advantages of MRI versus ultrasound in diagnosing extracranial pathologies.