Introduction
Trisomy 21 is the most common chromosomal abnormality associated with intellectual disability and congenital malformations such as congenital heart defects or anomalies of the gastrointestinal system. A variation in clinical presentation of children with trisomy 21 has been described ranging from milder forms of developmental delays to severe autism making counselling of affected couples challenging.

Objective
The aim of this study was to evaluate the brain of fetuses affected by trisomy 21 using fetal magnetic resonance imaging (fetal MRI).

Methods
We retrospectively reviewed all cases with confirmed genetic diagnosis of trisomy 21 for pathologies on fetal MRI between May 2007 and November 2018.

Results
11 fetuses (52.4%) had normal brains on fetal MRI scans and the following different brain abnormalities were present in the remaining 10 fetuses (47.6%): ventriculomegaly and/or asymmetry of the lateral ventricles in 6 (28.6%), corpus callosum anomalies in 4 (19%), small cerebellar diameter in 3 (14.3%) and wide extracerebral fluid spaces in 3 (14.3%). The latter group, and 15 additional cases presented with cardiac anomalies (85.7%).

Conclusion
Almost 50% of fetuses with trisomy 21 show a variety of different brain pathologies on fetal MRI, which could attribute to the differences in clinical neurological presentation reported in these children.