Prenatal brain imaging in isolated vs. complicated club foot: MR and neurosonography study
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Objective
To evaluate the contribution of fetal brain MRI additional to neurosonography in isolated and complex Talipes equinovarus (TEV).

Methods
In this retrospective study we evaluated charts of all pregnant patients referred for fetal brain MRI due to fetal TEV between 1.1.2011 and 31.12.2014 in a single tertiary referral center. Isolated and complex TEV were differentiated according to associated anomalies. Brain US and MRI results were compared.

Results
Twenty-eight pregnant patients were included with average gestation and parity of 2.5 and 1.5, respectively. Both isolated and complicated TEV groups included fourteen fetuses after initial TEV diagnosis on anatomical survey. Brain sonography and MRI were normal among 13/14 patients with isolated TEV while one patient had mild ventriculomegaly on both methods. US brain evaluation has revealed pathologic findings in four (28.6%) cases in the complicated TEV group, while MRI demonstrated abnormal findings in eight (57.1%) fetuses with notable severity diversity. In six cases, MRI diagnosed additional pathologies which were not demonstrated by US.

Conclusion
Brain fetal MRI is efficient tool during antenatal evaluation of complicated TEV with high percentage of additional findings not demonstrated sonographically while its efficacy in isolated cases is in doubt. The current study expands the relevance of fetal brain MRI in cases of non-CNS anomalies.