

## The added value of third trimester fetal brain MRI in cases of isolated ventriculomegaly

Katorza E, Fux A, Nezer M, Bar-Yosef O, Barzilay E  
Sheba Medical Center, Ramat Gan, Israel

### Objective

To assess the added value of third trimester fetal brain MRI, performed in one tertiary referral center, in cases of isolated ventriculomegaly as established by a dedicated multiplanar neurosonography.

### Methods

Fetal brain MRI scans performed in a single tertiary center during a 3-year period were assessed for possible inclusion. Only cases diagnosed with ventriculomegaly without additional findings in a neurosonography preceding the MRI were included. Fetal MRI was performed at a median gestational of 32 weeks (IQR 31-34 weeks).

### Results

A total of 68 cases met the inclusion criteria. Of them, in four cases MRI identified additional findings including three cases of intraventricular hemorrhage and one case of cortical infarction. The overall rate of MRI-findings in the study population was (5.9%, 95% CI 2.3-14.2%). No additional findings were detected in cases of mild ventriculomegaly, 6.1% in moderate and 25% in severe ventriculomegaly. The combined rate of additional findings in mild to moderate ventriculomegaly was 3.3% (95%CI 0.9-11.4%).

### Conclusion

MRI was able to detect additional findings in 5.9% of cases with seemingly isolated ventriculomegaly after a dedicated neurosonography. The severity of ventriculomegaly is associated with a higher chance of detecting abnormalities in fetal brain MRI.