

Neurodevelopmental outcome of fetal isolated ventricular asymmetry without dilation

Katorza E, Meyer R, Toussia-Cohen S, Berkenstadt M, Hoffmann D, Zvi E, Achiron R, Bar-Yosef O
Chaim Sheba Medical Center, Tel-Hashomer, Ramat-Gan, Israel

Objective

Fetal isolated ventricular asymmetry (IVA) is a relatively common finding in pregnancy, but data regarding its effect on neurodevelopmental outcome is scarce and principally founded on ultrasound-based studies. The purpose of this study was to assess the outcome of such cases in a magnetic resonance imaging based study.

Methods

Cases referred to fetal brain MR imaging as part of the investigation of IVA without ventriculomegaly (≤ 10 mm), identified during routine ultrasound examinations, were assessed for possible inclusion. Asymmetry was defined as a difference of ≥ 2 mm between the two lateral ventricles. Forty-three cases were included in the study group and compared to a control group of 94 normal cases without IVA. Children were assessed at ages 13 to 74 months using the Vineland Adaptive Behavior Scales (VABS).

Results

VABS scores were within normal range. There was no significant difference in composite VABS score between the study and control groups (106.5 vs. 108.0, respectively; $p = 0.454$). VABS scores did not differ between the groups when matching for gender and age during the VABS interview (109.6 in study group vs. 107.8 in control group; $p = 0.690$).

Conclusion

In cases of IVA without ventriculomegaly on MRI, neurodevelopmental test scores were normal and did not differ from cases without IVA.