Fetal mild ventriculomegaly: the correlation between the degree of dilatation and other fetal biometric parameters

Katorza E, Fishel-Bartal M, Shai D, Shina A, Achiron R.
Sheba Medical Center, Tel-Aviv, Israel

Objective
The aim of this study was to assess the correlation between fetal lateral ventricles width and other biometric measurements.

Methods
We performed a prospective study on 336 fetuses, 171 fetuses with isolated mild ventriculomegaly and a control group of 165 fetuses with a normal US examination. All fetuses underwent a detailed brain ultrasound scan and a full biometric evaluation. To further compare biometric parameters that are dependent on the gestational week, we matched, according to gestational week, 85 fetuses with isolated mild ventriculomegaly from the study group to 85 fetuses with a normal sonogram from the control group.

Results
A significant difference in the fetal gender was found: 67% in the study group compared to 55% in the control group were males (p=0.017). There was no difference between the groups in the fetal presentation or placental location during the exam. After matching according to gestational age (criteria for matching was up to 0.5-week difference between the matched pair), the mean gestational week between the matched groups didn’t differ and was 29+6 weeks in both groups. The maximal ventricular width was 11.0 mm in the study group and 6 mm in the control group. The study group had a significantly larger head circumference (p<0.001), biparietal diameter (p<0.001), occipitofrontal diameter (p=0.034), cisterna magna (p=0.005), abdominal circumference (p=0.017), femur length (p<0.001), and estimated fetal weight (p<0.001) compared to fetuses with normal fetal ventricle measurement.

Conclusion
Isolated mild ventriculomegaly could be related to other larger fetal biometric measurements and does not necessarily mean a pathological condition.