

The normal fetal cavum septum pellucidum in magnetic resonance imaging

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Objective

The cavum septum pellucidum (CSP) is an important landmark in the evaluation of the fetal neural axis. A deviation from the ultrasonic normal values may be associated with unfavorable outcomes, and a normal CSP provides reassurance of normal central forebrain development. Today, there is biometric data regarding the normal values for the width of the CSP in fetal ultrasound, but there is no such data for fetal magnetic resonance imaging (MRI). The aim of this study was to determine the normal values for the measurements of the fetal CSP on MRI.

Mothode

We retrospectively examined 307 MRI scans of fetuses between 25 and 41 weeks gestation. Data was collected from the electronic charts of patients who underwent fetal MR imaging at a single tertiary Medical Center. The width and length of the CSP were measured in the axial plane, and the width and height were measured in the coronal plane.

Results

The width and height of the CSP in fetuses tend to decrease starting from the 27th week of gestation onwards. High levels of intraobserver and interobserver agreements were calculated. The sex of the fetus does not appear to influence the biometry of the CSP.

Conclusion

This study provides MRI reference values for the dimensions of the CSP starting from the 25th week of gestation. Knowing the normal values for MRI could provide valuable information for researchers and in the decision-making process in patient's consultations.