

Interventricular septal thickness as a diagnostic marker of fetal macrosomia

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Introduction:

Serious complications in both mother and child arising as a result of fetal macrosomia indicate the need for early diagnosis and prevention. Unfortunately, current predictors such as fetal biometry, fundal height and amniotic fluid index appear to be insufficient.

Aim of the study:

Therefore, we decided to assess the predictive potential of interventricular septal thickness (IVST) as measured in ≥ 33 weeks of gestation.

Material and methods:

299 patients met the inclusion criteria: ≥ 33 weeks of gestation and a complete medical history including all necessary measurements, namely IVST obtained by M-mode echocardiography, fetal biometry information and birth weight. Statistica 13.1 PL software was used to generate the receiver operating curve.

Results:

46.43% of macrosomia cases were predicted based on fetal biometry abnormalities. IVST is a promising macrosomia predictor, with an area under the curve of 0.644 (0.525-0.762; $p=0.0177$). Using the Youden index method, a cut-off point of 4.7mm was selected as the most optimal threshold for diagnosis, detecting up to 71.43% of cases.

Conclusion:

IVST at ≥ 4.7 mm appears to have a higher sensitivity and NPV than ultrasound, which was reported both here and elsewhere

Key words: Fetal Macrosomia, Macrosomia, Interventricular Septal Thickness, Prenatal Cardiology