



Clinical application of fetal left modified myocardial performance index in the evaluation of fetal growth restriction

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Abstract:

Objective: This study aims to evaluate cardiac function in fetuses with intrauterine growth restriction (IUGR) compared with healthy fetuses, using the left modified myocardial performance index (MPI) and the association between MPI and perinatal outcome. **Methods:** Pregnant women between 34 and 39 weeks of gestation, who met the criteria for IUGR and were scheduled for delivery at an Egyptian tertiary medical center, were prospectively enrolled in the study. Women in the same gestational-age group with uncomplicated pregnancies were included as a control group. MPI was measured in all fetuses. The IUGR group was analyzed based on normal and abnormal umbilical artery (UA) Doppler. Perinatal outcomes were recorded. **Results:** The mean left MPI was significantly higher in IUGR fetuses with abnormal UA Doppler (mean $0.58 \pm SD 0.093$) compared with healthy fetuses (mean $0.45 \pm SD 0.070$) (P

Keywords:

Assessment; fetal echocardiography; intrauterine growth restriction; MPI (or Tei index); perinatal outcome; umbilical artery Doppler

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