# SONOGRAPHIC EVALUATION OF FETAL GROWTH IN THE THIRD TRIMESTER OF LOW RISK PREGNANCY: A RANDOMIZED TRIAL

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### Abstract

Objective To evaluate the accuracy of 35-37 weeks' ultrasound for fetal growth restriction (FGR) detection and the impact of 30th-33rd weeks vs 35th-37th weeks ultrasound on perinatal outcomes. Design A prospective randomized trial Setting Tertiary referral hospital in Portugal. Population Low risk pregnant women Methods We enrolled 1061 women: 513 in the control group (ultrasound at 30th-33rd weeks) and 548 in the study group (with an additional ultrasound at 35th-37th weeks). FGR was defined as an estimated fetal weight (EFW) below 10th percentile. We calculated the overall accuracy of the 35-37 weeks' ultrasound and compared perinatal outcomes between both groups. Main outcome measure Detection of late FGR Results The ultrasound at 35-37 weeks had an overall accuracy of FGR screening of 94%. Spearman's correlation coefficient between EFW and birthweight centile was higher for at 35-37 weeks' ultrasound ($\rho = 0.75$) compared with 30-33 weeks' ultrasound ($\rho = 0.44$). The study group had a lower rate of operative vaginal deliveries (24.4% vs 39.3%, $p = 0.005$) and cesarean deliveries for nonreassuring fetal status (16.8% vs 38.8%, $p < 0.001$). For FGR prediction, the area under the receiver-operating characteristics curve of EFW centile at 35-37 weeks' ultrasound was 0.90 (95% CI, 0.86-0.95). Conclusions A later ultrasound (35-37 weeks) had a higher correlation between EFW and birthweight centiles and was associated with a lower rate of cesarean and operative deliveries for nonreassuring fetal status compared to an earlier ultrasound, which reinforces that antenatal identification of FGR allows close monitoring and appropriate management.

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