

EP07.57 Is Abdominal Circumference a Better Predictor of Adverse Outcome than Estimated Fetal Weight in Late-Pregnancy Small for Gestational Age Fetuses?

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INTRODUCTION

While Estimated Fetal Weight (EFW) is derived from a composite biometric formula, placental insufficiency may result in asymmetric growth, with skeletal growth preferentially preserved at the expense of abdominal soft tissue. This abdominal wasting may therefore be underestimated when assessment relies solely on EFW.

Although Small-for-gestational-age (SGA) fetuses are often considered low-risk in clinical practice, they contribute substantially to late-pregnancy and neonatal morbidity, underscoring the need for more refined risk-stratification tools.

OBJECTIVES

To determine if an **isolated small Abdominal Circumference (AC < 10th percentile)** is a superior predictor of adverse perinatal **outcomes** compared to an isolated small Estimated Fetal Weight (EFW < 10th percentile).

RESULTS

A total of **168 late SGA cases** met the inclusion criteria (44 in the Isolated AC group, 124 in the Isolated EFW group).

- **Emergency Cesarean Section:** Significantly higher in the **Isolated AC group (40.9%)** vs. the Isolated EFW group (17.7%) (**p = 0.002**).
- **NICU Admission:** Significantly higher in the **Isolated AC group (13.6%)** vs Isolated EFW group (4.0%) (**p = 0.024**).

MULTIVARIATE LOGISTIC REGRESSION

Adjusted Odds Ratio (aOR)

2.84

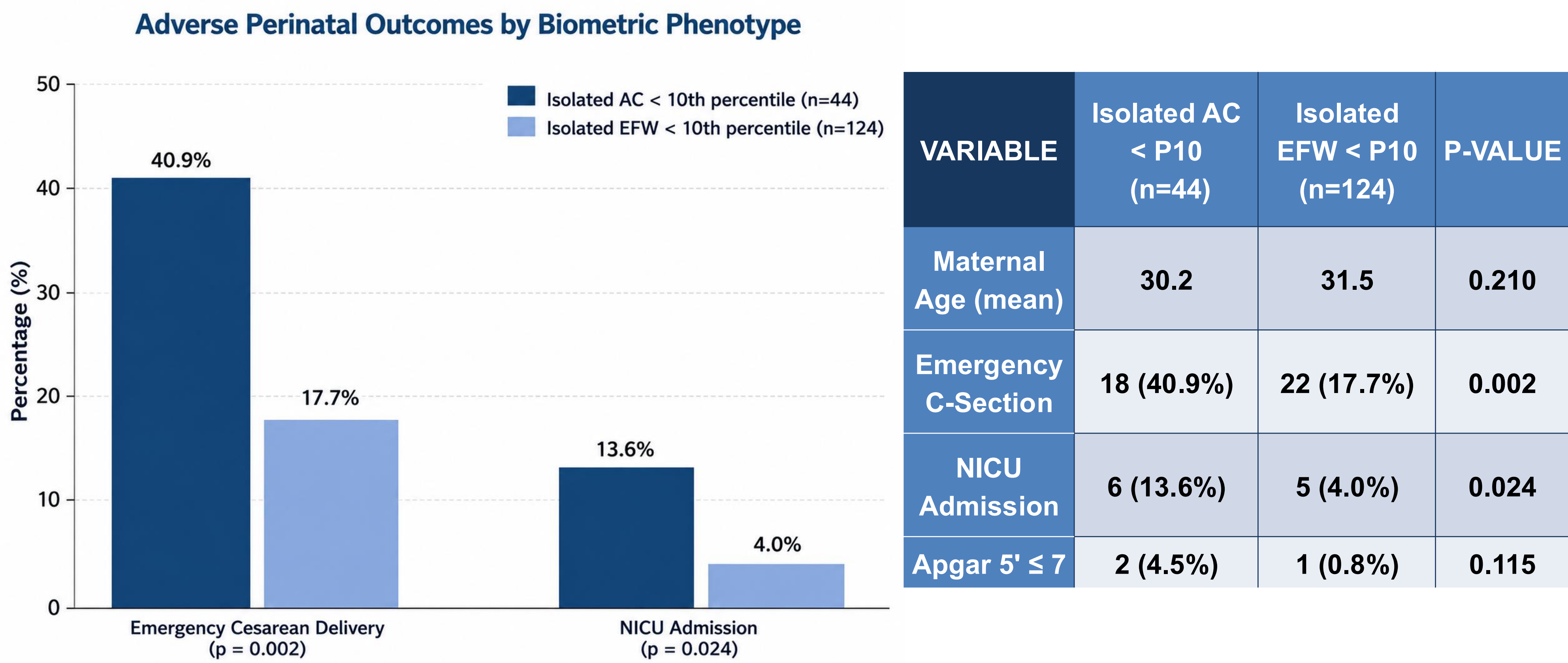
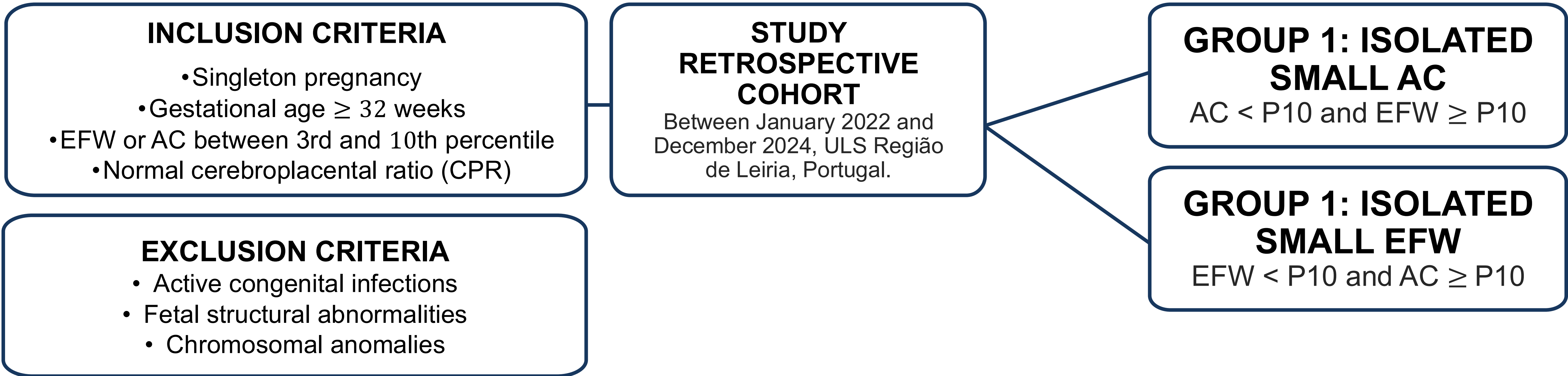
Isolated small AC was the strongest independent predictor of Composite Adverse Outcome (CAO)

(95% CI: 1.35–5.98; p = 0.006)

METHODS

OUTCOMES: Composite Adverse Outcome (CAO), defined as: Emergency caesarean section for non-reassuring fetal status, Apgar score at 5 minutes ≤ 7 , or Neonatal Intensive Care Unit (NICU) admission.

STATISTICAL ANALYSIS: Continuous variables compared using Kruskal-Wallis test; categorical variables analysed using Fisher’s exact test. Statistical model adjusted for maternal age, gestational age at delivery, labour induction, and parity. Significance level was established at $p < 0.05$.



DISCUSSION & CONCLUSIONS

✓ Fetal AC percentile seems a sensitive marker of placental reserve and abdominal wasting, and may outperform EFW in detecting subtle late-onset placental insufficiency. **Isolated small AC was associated with a 2.8 fold higher risk of adverse outcomes compared to isolated small EFW.**

✓ Late-pregnancy SGA fetuses with an isolated small AC constitute a high-risk group that may be overlooked by standard EFW based screening. Enhanced surveillance should therefore be considered, even when EFW and Doppler findings are normal.