

Beyond the tape: is abdominal circumference or estimated fetal weight the superior predictor of LGA births? isuog2025.1c3071c

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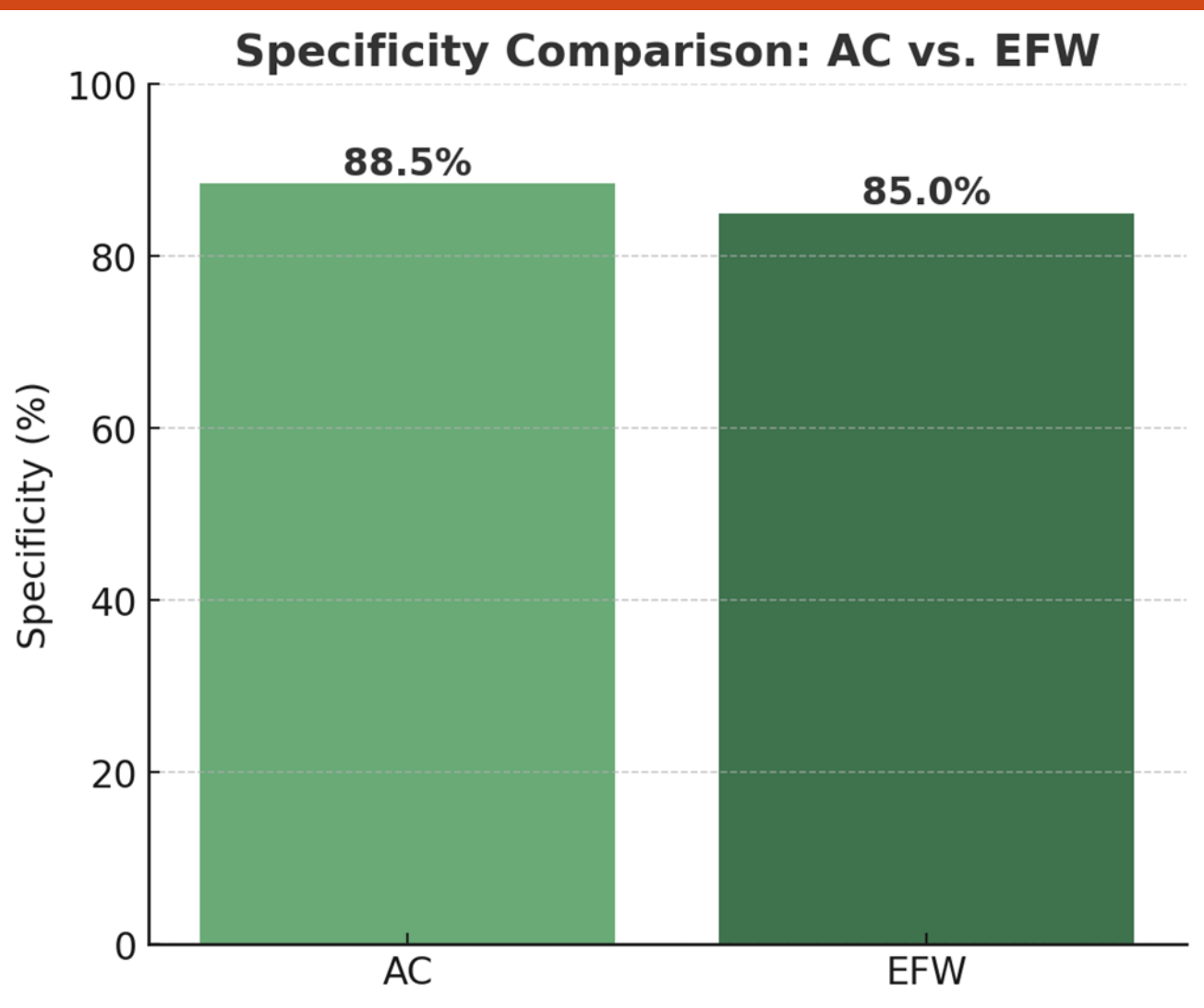
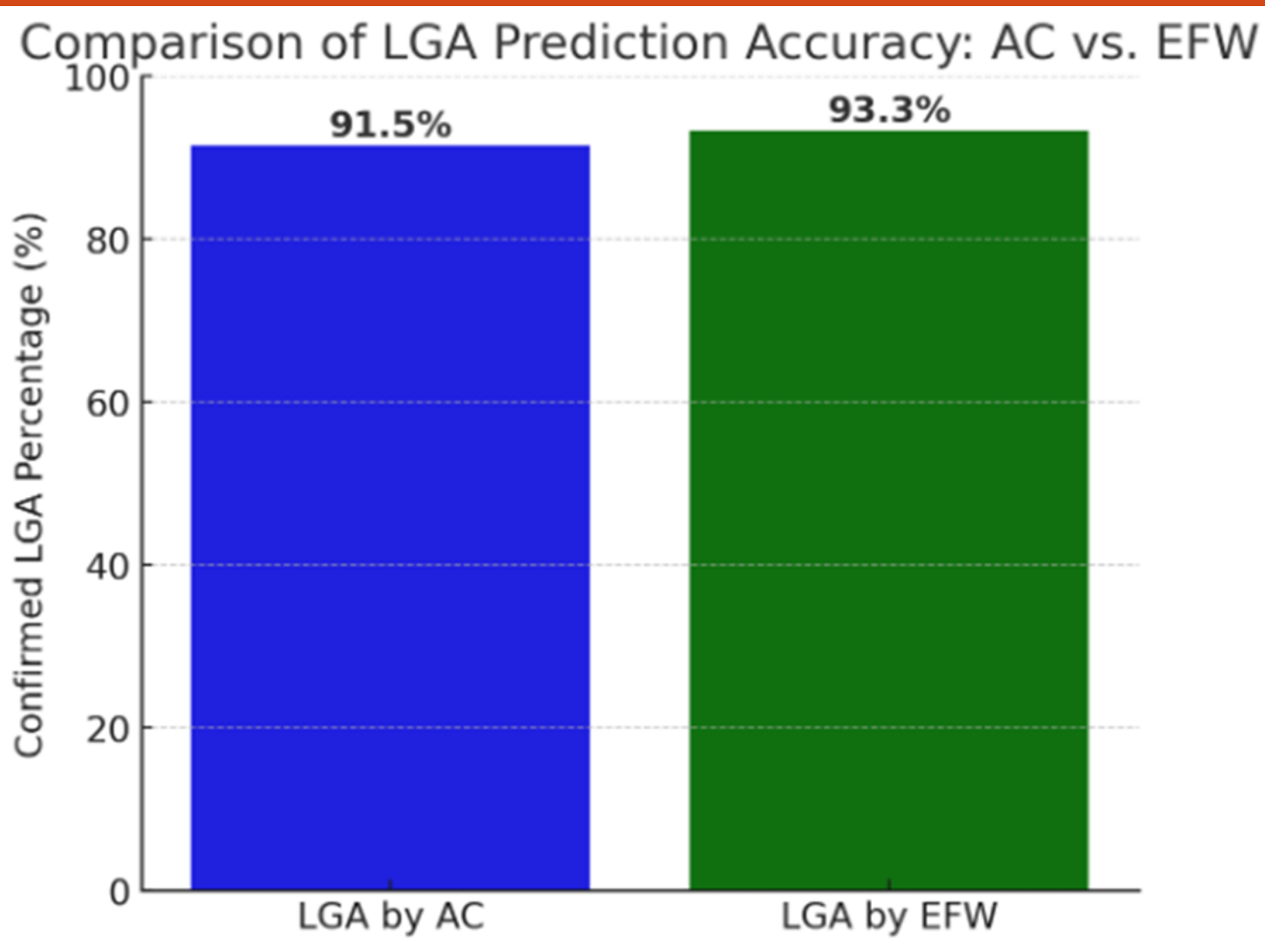
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INTRODUCTION

Large for gestational age (LGA) births are associated with increased perinatal risks, necessitating accurate prenatal identification. While estimated fetal weight (EFW) integrates multiple biometric parameters, abdominal circumference (AC) remains a simple yet widely used marker for fetal growth assessment

RESULTS

EFW demonstrated higher sensitivity (93.3%) than AC (91.5%), correctly identifying more LGA cases. AC had slightly superior specificity (88.5%) over EFW (85.0%),



RECOMMENDATIONS

✦ Prioritize EFW over AC when diagnosing LGA prenatally.

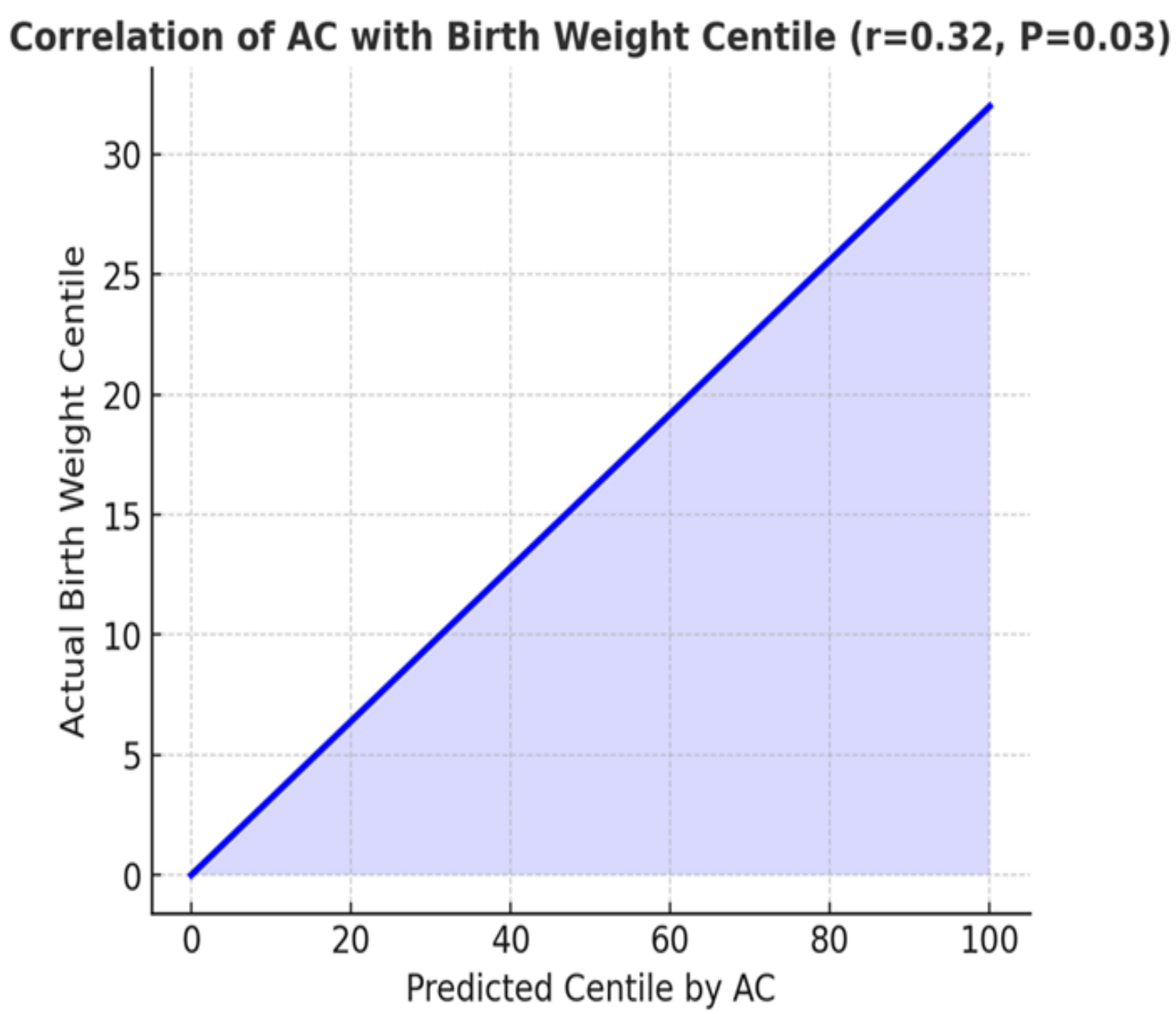
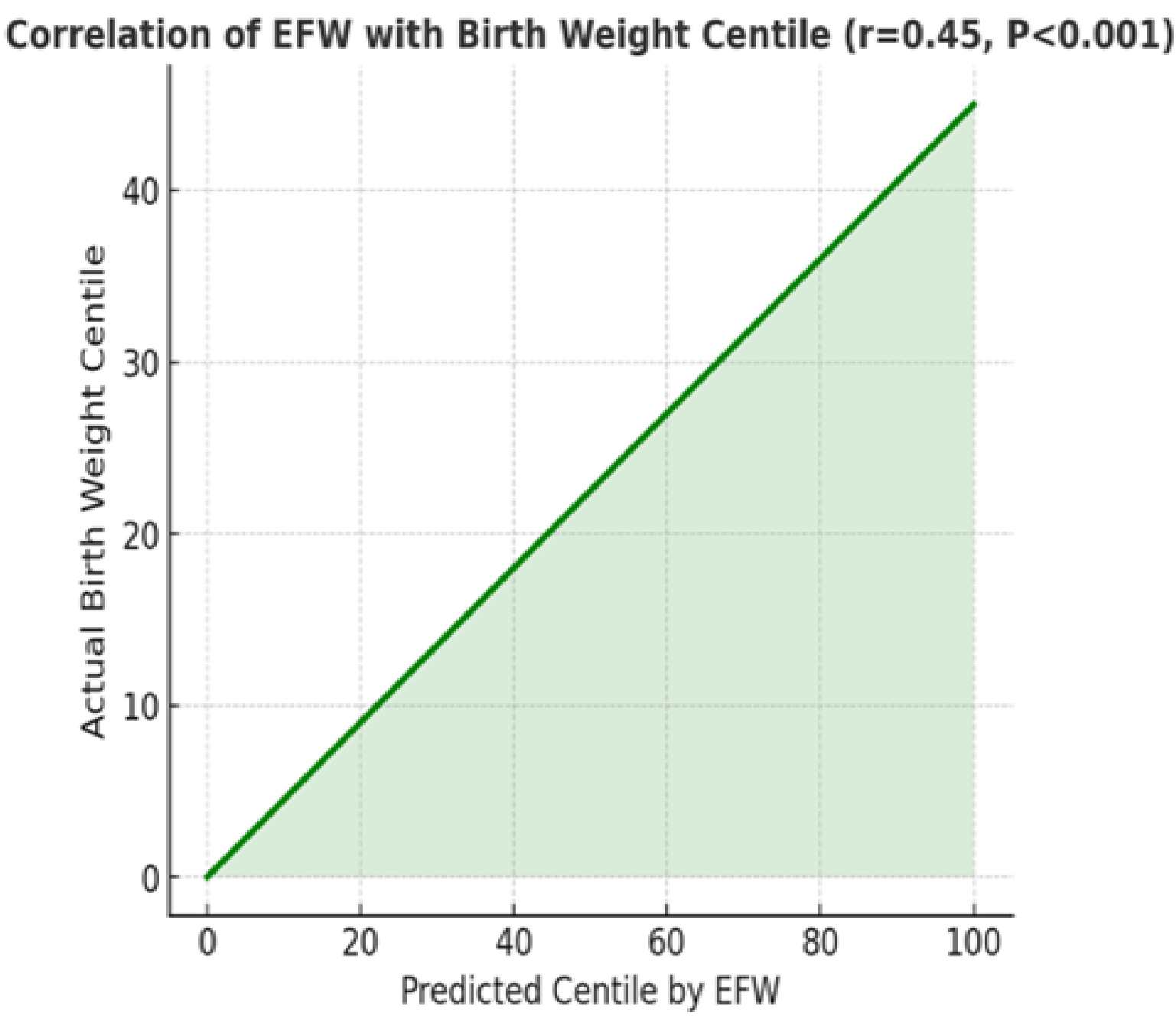
✦ Combine EFW with maternal factors (e.g., BMI, weight gain) to refine predictions.

✦ Reduce reliance on AC alone to avoid unnecessary interventions.

✦ Future studies should explore AI-based models to enhance fetal weight estimation accuracy.

OBJECTIVE

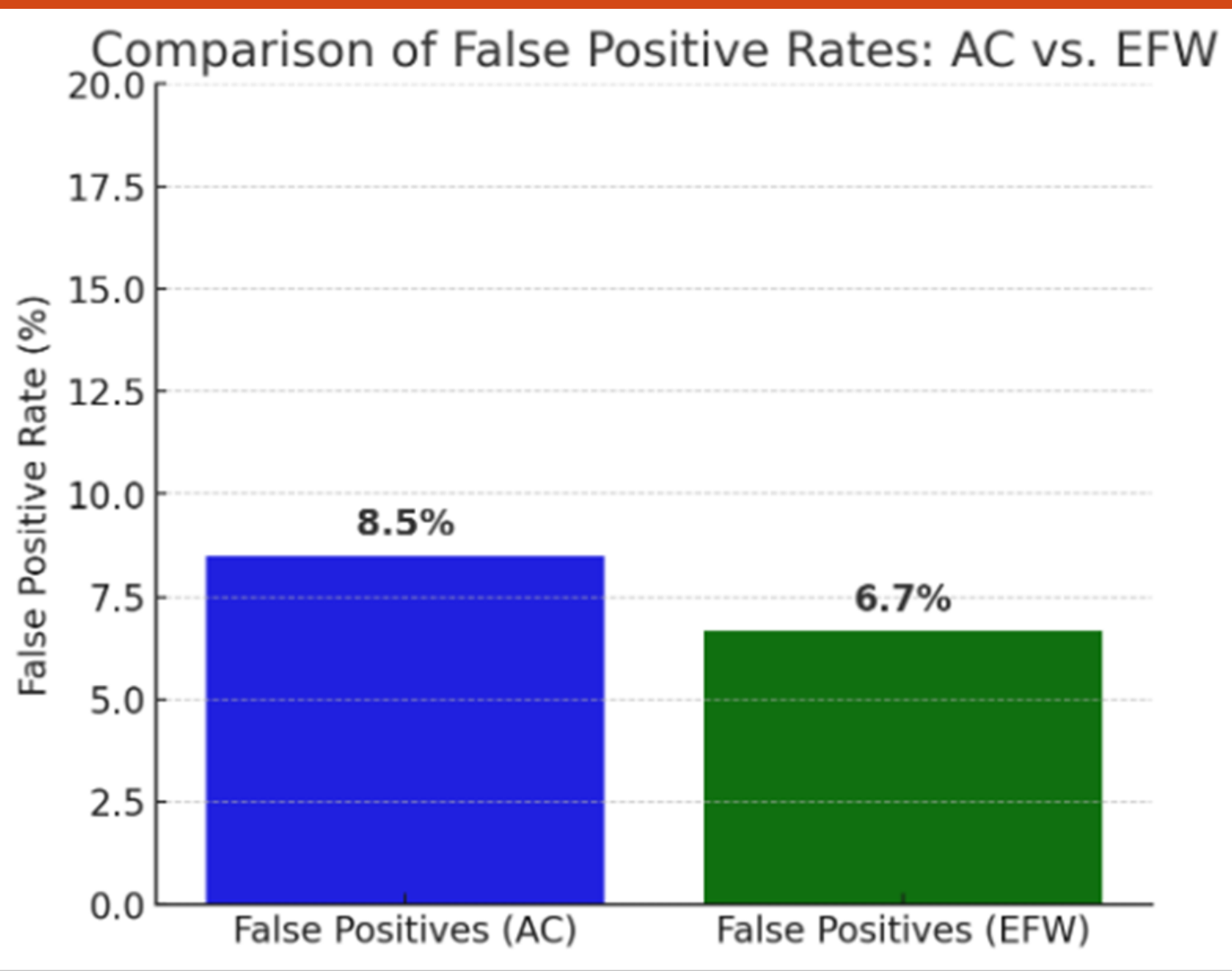
The study evaluates which parameter—EFW or AC—is the more reliable predictor of LGA births, with implications for optimizing obstetric ultrasound reporting



Pearson correlation revealed a stronger association between EFW and birth weight centiles ($r = 0.45$, $P < 0.001$) than AC ($r = 0.32$, $P = 0.03$).

METHODS

: A retrospective analysis of 200 ultrasound reports from George Eliot Hospital (2023–2024) was conducted. AC and EFW measurements were extracted from the Badgernet Maternity App, with outcomes matched for maternal age, BMI, and parity. LGA was defined as birth weight ≥ 90 th centile. Diagnostic accuracy was assessed using sensitivity, specificity, and positive predictive value (PPV), alongside Pearson correlation analysis to determine agreement between ultrasound-derived measurements and actual birth weights



AC had slightly superior specificity (88.5%) over EFW (85.0%), but a higher false positive rate (8.5% vs. 6.7%)



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CONCLUSION

EFW appears to be a more accurate predictor for optimizing LGA detection than AC, striking a better balance between sensitivity and specificity. Despite AC's ease of use and high sensitivity, its lower specificity raises concerns about over-diagnosis and unnecessary intervention. Future research should explore multifactorial prediction models to refine fetal growth assessments and enhance perinatal outcomes.