

Impact of Maternal BMI on Caesarean Section Indications and Neonatal Outcomes: A Six-Month Review

Tadiwa Mashavave - RANZCOG Regional Symposium

Background:

Rising maternal body mass index (BMI) is associated with increased obstetric intervention and adverse outcomes. Elevated BMI has been identified as an independent risk factor for caesarean section (CS). This study aimed to examine the impact of maternal BMI on indications for emergency CS, intrapartum course, and neonatal outcomes in our unit.

Methods:

We conducted a retrospective review of 139 emergency CS performed over a six-month period. Data collected included maternal age, parity, gestational age, BMI, indication for CS, labour onset and stage, intrapartum factors (epidural, oxytocin use), CTG interpretation, and neonatal cord gases. Women were stratified into four BMI categories: normal (18.5–24.9), overweight (25–29.9), obese (30–39.9), and severe obesity (≥ 40).

Results:

The majority of emergency CS occurred in women with BMI 30–39.9. Obese and severely obese women were more likely to undergo CS for failure to progress compared with women of normal BMI. Intrapartum interventions, including oxytocin augmentation and epidural use, were more common in higher BMI groups. Neonates of obese women demonstrated higher rates of abnormal cord gases, suggestive of increased intrapartum compromise.

Discussion:

Maternal obesity is strongly associated with labour dystocia, greater reliance on intrapartum interventions, and potentially adverse neonatal outcomes. These findings highlight the challenges of managing labour in women with elevated BMI and the importance of preconception counselling and tailored intrapartum planning.

Conclusion:

Maternal BMI significantly influences indications for CS and intrapartum management. Anticipatory strategies are essential to optimise outcomes for both mothers and neonates in the context of rising maternal obesity.