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Immediate postpartum complications and neonatal outcomes of antenatal anaemia among mother-newborn pairs in the obstetrics wards of Teaching Hospital, Jaffna

Kais AKAA¹, Asra AN¹, Karunarathna MMCP¹, Bandara LMHM¹, Sivasankar JT², Guruparan K³

¹Faculty of Medicine, University of Jaffna

²Department of Community and Family Medicine, Faculty of Medicine, University of Jaffna

³Teaching Hospital, Jaffna

Background and objective: Anaemia in pregnancy, defined as haemoglobin (Hb) <11 g/dL, remains a major global health concern, affecting approximately 40-45% of pregnant women worldwide. In Sri Lanka, the prevalence of antenatal anaemia is estimated at around 29-34%, varying by region and socioeconomic background. Maternal anaemia is linked to complications such as postpartum haemorrhage, preterm delivery, and low birth weight. This study aimed to determine the immediate postpartum complications and neonatal outcomes associated with antenatal anaemia among mother-newborn pairs in the obstetrics wards of Teaching Hospital Jaffna.

Methods: A hospital based descriptive cross-sectional study was conducted among anaemic mothers and their newborns in wards 18, 20, 21 and 22 (Gynaecology and Obstetrics) of Teaching Hospital Jaffna from 9th August 2024 to 20th January 2025. Data were collected using interviewer-administered questionnaires and data extraction forms. Data analysis was performed using SPSS version 21 and Fisher's Freeman - Halton test was applied to assess associations between sociodemographic factors, postpartum complications, and neonatal outcomes. A p-value <0.05 was considered statistically significant.

Results: Of the 351 participants, 308 (87.7%) mothers did not experience any immediate postpartum complications. Among those affected, postpartum haemorrhage (7.4%) and blood transfusion (5.4%) were the most common complications. Regarding neonatal outcomes, 88.3% of newborns had no complications, while preterm birth (4.4%) was the most frequent adverse outcome. One neonatal death was recorded. No significant associations were found between sociodemographic characteristics and postpartum complications. A significant association was identified between postpartum blood transfusion and household income ($p = 0.022$).

Conclusion: Although most mothers and neonates did not develop complications, preterm births and postpartum haemorrhage emerged as leading adverse outcomes in mothers with antenatal anaemia. Strengthening antenatal screening, nutritional supplementation, and management of maternal anaemia is essential to reduce maternal and neonatal risks. Enhanced postpartum monitoring and community-based nutritional interventions are recommended to further improve outcomes.

Keywords: antenatal anaemia, postpartum complications, neonatal outcomes, postpartum haemorrhage, pre-term birth