

Does Maternal Hemoglobin Consistently Associate with Iron Status at Birth? Evidence from a Cross-sectional Study in Indonesia

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Abstract	<p>a:3:{i:0;s:414:"Background: Maternal iron status is a vital determinant of fetomaternal iron transfer to ensure the adequacy of neonatal iron. Hemoglobin measurement is often used in pregnancy as an iron status parameter. However, evidence on the association between maternal hemoglobin and newborn iron status is still inconclusive. This study aims to assess the association between maternal hemoglobin and neonatal iron status.";i:1;s:574:"Methods: We conducted a cross-sectional study involving 84 neonates and their mothers in three hospitals in Central Java, Indonesia. Maternal hemoglobin was measured as a proxy for maternal iron status. Neonatal iron status was measured using hematologic markers (red blood cell count, hemoglobin, hematocrit, mean corpuscular volume, and red cell distribution) and biochemical markers (serum iron, soluble transferrin receptor/sTfR, and cord blood hepcidin). Neonatal iron status was compared between the two groups of maternal iron status followed by sensitivity analysis.";i:2;s:568:"Results: Maternal hemoglobin was not significantly associated with neonatal hematologic markers or biochemical markers. Sensitivity analysis did not reveal any associations in multiple tests conducted by various categories.Conclusion: Maternal hemoglobin was consistently not associated with neonatal iron status, as measured by both hematologic and biochemical markers. The use of maternal hemoglobin as a single parameter proxy for maternal and neonatal iron status is likely inaccurate and can potentially underestimate the actual maternal and neonatal iron status.";}</p>
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