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**Iron Deficiency and Iron Deficiency Anemia in 3-5 months-old, Breastfed Healthy Infants**

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**Abstract**

**Objective:**To assess the prevalence of iron deficiency (ID) and iron deficiency anemia (IDA) in predominantly breastfed, 3-5-mo-old infants, born at term, with a birth weight ≥ 2.5 kg.

**Methods:**The cross-sectional study was conducted in the outpatient department of a tertiary care center from January 2013 through December 2014.

**Inclusion criteria:**Age: 90-180 d, exclusively/predominantly breastfed, birth weight ≥ 2.5 kg and term gestation.

**Exclusion criteria:**systemic illness, leucocytosis, leucopenia, thrombocytopenia, peripheral smear abnormality or iron supplementation. Blood sample was collected for complete blood count and ferritin assay. ID was defined as serum ferritin <12 μg/L. IDA was defined as ID plus Hb ≤ 10.5 g/dl.

**Results:**Two hundred ninety six infants were initially recruited; 29 declined consent; 22 had leukocytosis, leucopenia or eosinophilia; 15 had thrombocytopenia; 15 samples were hemolyzed or insufficient. Finally, 215 infants were evaluated. The male-female ratio was 1.8:1. The mean birth weight was 2.9 (0.4) kg. The mean Hb was 10.8 (1.2) g/dl. The median serum ferritin was 44 μg/L (18, 120). The prevalence of ID at 3, 4 and 5 mo of age was 5.4%, 21.4% and 36.4%, while that of IDA was 4.6%, 16.7% and 11.4%, respectively.

**Conclusions:**The prevalence of ID at 4 and 5 mo of age in predominantly breastfed, term infants was 21.4% and 36.4%, respectively. The study generates evidence for considering iron supplementation for well-babies from 4 mo of age, instead of the currently recommended 6 mo by National Iron plus Initiative in India.

**Keywords:**Anemia; Breastfeeding; Infants; Iron deficiency; Supplementation.

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