Iron deficiency anemia among infants: a retrospective cohort study

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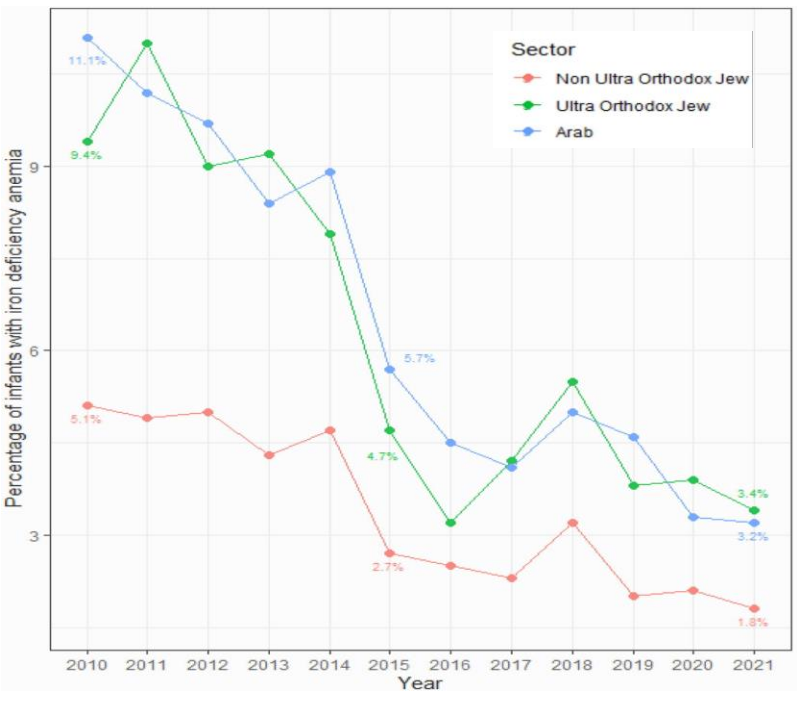
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Introduction: Postnatal iron deficiency anemia (IDA), especially from 6 to 24 months, can have long-term consequences extending into adolescence and adulthood. These include poor cognition, intelligence, development, motor function, behavior, and reduced visual and auditory function. The prevalence of IDA is 40-47% worldwide but it varies in different populations.

Aim: To characterize IDA among infants in a central Israeli district using demographic and laboratory parameters.

Methods: This retrospective cohort study, conducted between 2010 and 2021, included 101,650 infants aged 9 to 18 months who were members of Clalit Health Services in Dan Petach Tikva district and underwent a complete blood count as part of the national routine screening program for IDA.

Results: IDA was defined as hemoglobin levels <11 g/dL and mean corpuscular volume <70 fl. 4,296 infants (4.2% of the study group) had IDA. Higher prevalence of IDA was observed among Arab (6.6%) and ultraorthodox Jewish infants (6%), compared to non-ultraorthodox Jewish infants (3%). Low socioeconomic status and rural residence were additional risk factors. Over the study years, a decrease in IDA in all populations was observed.



Conclusion:
Arab and ultraorthodox Jewish infants are at increased risk for IDA. We recommend enhancing the nationwide intervention program for both clinicians and parents, thereby treating IDA promptly to avoid short- and long-term deleterious health consequences.