

REVIEWER'S REPORT

Manuscript No.: IJAR-57122

Title: Clinical presentation of vitamin B12 deficiency in pediatric patients at a tertiary care centre

Recommendation:

Accept after minor revision.....

Rating	Excel.	Good	Fair	Poor
Originality		(✓)		
Techn. Quality	(✓)			
Clarity	(✓)			
Significance	(✓)			

Reviewer Name: Dr. Bilqees Hamza

Detailed Reviewer's Report

The academic article titled "Clinical Presentation of Vitamin B12 Deficiency in Pediatric Patients at a Tertiary Care Centre" provides a critical cross-sectional analysis of the symptomatic landscape and etiological factors associated with cobalamin deficiency in children. The study, conducted over a six-month period at Rani Durgavati Medical College, examines a cohort of 110 pediatric patients to highlight the often-underreported prevalence of this nutritional deficiency in regions with high vegetarianism and malnutrition rates. The author establishes that vitamin B12 is indispensable for neurological development and hematological stability, noting that failure to identify early clinical markers can lead to irreversible nerve damage and severe neurodevelopmental delay. By evaluating laboratory parameters such as hemoglobin levels, peripheral blood smears, and serum B12 concentrations, the research effectively maps the systemic impact of the deficiency across different pediatric age groups.

A primary strength of the manuscript is its focus on the diverse clinical manifestations observed in the study population, ranging from hematological abnormalities like megaloblastic anemia to complex neurological symptoms. The author identifies that infants and young children are particularly vulnerable, especially those who start complementary feeding late or are breastfed by B12-deficient mothers. The study successfully illustrates the correlation between maternal nutritional status and neonatal health, framing B12 deficiency as a multi-generational health issue. Furthermore, the inclusion of data regarding appetite loss and irritability as early indicators provides valuable diagnostic tools for clinicians in tertiary care settings who may otherwise overlook these non-specific symptoms. The research underscores that

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early intervention through supplementation is a highly effective and cost-efficient method to prevent long-term morbidity.

However, for the article to be fully accepted with minor revision, the author must refine the methodological and comparative aspects of the analysis. First, the manuscript should be modified to include more specific quantitative results from the 110-patient cohort within the discussion section. While the abstract mentions that deficiency is more common in infants and vegetarians, providing a clear statistical breakdown of the percentage of patients presenting with specific neurological versus hematological symptoms would significantly enhance the paper's empirical weight. Second, the author needs to expand on the "malnutrition" factor mentioned in the background. The revision should explicitly discuss how B12 deficiency interacts with other common pediatric conditions in the region, such as iron-deficiency anemia or protein-energy malnutrition, to provide a more holistic view of the patient's clinical profile.

Additionally, a minor stylistic adjustment is required to ensure that the transition between the laboratory findings and the clinical conclusions is more seamless. The author should also incorporate a more detailed comparison with existing Indian and international literature on pediatric B12 deficiency to situate these findings within the broader global health discourse. This comparison would help clarify whether the symptoms observed at this specific tertiary care centre align with or diverge from trends seen in other demographic settings. Finally, the conclusion needs to offer more concrete policy recommendations, such as the implementation of routine B12 screening for pregnant women and infants in high-risk areas. By addressing these technical points—specifically the inclusion of detailed symptom statistics and the expansion of the socio-economic context—the author will provide a definitive and highly relevant contribution to pediatric nutritional science.

Recommendations and publication decision

Subject to these minor revisions, the article is suitable for publication.