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**EVALUATION OF VITAMIN B12 LEVELS IN  
CHILDREN WITH INFANTILE SPASMS AND CHILDREN  
WITH GLOBAL DEVELOPMENTAL DELAY WITHOUT  
INFANTILE SPASMS:  
A CROSS SECTIONAL OBSERVATIONAL STUDY**

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There have been few case reports showing association of vitamin B12 deficiency with infantile spasms. We planned this study to see if there was an association of serum vitamin B12 deficiency in children with development of infantile spasms. Aim of the study was to evaluate the mean serum vitamin B12 levels in children with infantile spasms as compared to children with Global Developmental Delay without infantile spasms aged 6 months to 3 years and to compare the mean serum levels of vitamin B12 in children with West syndrome as compared to GDD without infantile spasms. It was an observational cross-sectional study. Study population consisted of children presenting to the Out Patient Department and Paediatric wards of Kalawati Saran Children's Hospital. Primary Outcome Variable was mean serum vitamin B12 levels in two groups. Secondary Outcome Variable was to find the Percentage of patients with vitamin B12 deficiency defined as level below 160pg/ml in children with infantile spasms. The most common etiology in both the groups (cases and controls) was perinatal asphyxia. West syndrome patients had lower mean serum vitamin B12 levels as compared to patients with GDD without spasms. Out of total 40 cases 14 patients had serum vitamin B12 levels <160 pg/ml. Mean serum levels of homocysteine and mean levels of urinary methylmalonic acid were elevated in patients of West syndrome as compared to GDD patients and the elevated levels were significant with p value <0.05.

**Conclusion:** Vitamin B12 deficiency should be considered in the differential diagnosis of West syndrome as a treatable cause. Although vitamin B12 deficiency was seen in 35.0% of children with infantile spasms, this does not prove a causal association. However, considering the magnitude of deficiency, further studies are needed to understand the association between vitamin B12 deficiency and infantile spasms.

**Keywords:** West syndrome, Infantile spasm, Global Developmental Delay, Homocysteine, Methylmalonic acid.

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## Biography

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