

HYPOCALCEMIA SECONDARY TO MATERNAL VITAMIN D DEFICIENCY:

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Hypocalcaemia occurs in vitamin D deficiency, malabsorption and parathyroidism.

Vitamin D deficiency with secondary hypocalcaemia in infants is recognised.

We report an infant who presented with convulsions, hypocalcemia with hypomagnesaemia.

Case report

A full term male born to Asian family with no parent consanguinity nor any significant family history, presented at 26 days of age with new generalized convulsions weight 4.15 kg, no dysmorphic features, normal systemic examination. Initial studies showed ionised calcium 0.7mmol/l, total calcium 1.37mmol/l, magnesium 0.52mmol/l, inorganic phosphate 3.03mmol/l, vitamin D 3.1mmol/l, alkaline phosphatase 577iu/l. Sodium, Potassium, Urea, Creatinine, Pth and Glucose were normal. Genetic investigation in progress.

The baby was initially treated with anticonvulsants and calcium gluconate. Despite this treatment, seizures persisted, bolus of magnesium administered. Within 24 hours serum calcium normalized. The baby was transitioned to oral magnesium and calcium. Vitamin D 2000 units were supplemented. Renal ultrasound was normal.

Mother investigations showed low Vitamin D. Ca, Mg, and Po₄ were all normal. The baby was discharged on vitamin D supplementation. During follow up vitamin D tapered then stopped.

Conclusion:

The diagnosis can be a challenge. Maternal investigations are an important step in the management. Early diagnosis and appropriate treatment are important to avoid irreversible neurologic brain damage.

References:

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