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Paraplegia : A Rare Manifestation of Vitamin K Deficiency

Late onset Vitamin K Deficiency Bleeding (VKDB) is a syndrome defined as unexpected bleeding attributable to severe vitamin K deficiency in infants 2 to 12 weeks of age, occurring primarily in exclusively breastfed infants who have received no or inadequate neonatal vitamin K prophylaxis. The incidence ranges from 4.4 to 7.2 per 100000 births(1). It tends to be more severe than early onset or classical disease. 50-80% of VKDB patients present with serious intracranial hemorrhage. Other manifestations are ecchymosis, nodular purpura and bleeding from GI tract/mucus membranes/skin punctures or surgical incisions(1-5). We describe a rare case of VKDB with spinal hemorrhage.

A 9 month old boy presented with ecchymotic patches for 7 days, bleeding from both ear and pallor for 2 days with paucity of spontaneous movements in both legs and urinary retention for 1 day. There was no icterus, lymphadenopathy or hepatosplenomegaly. Higher mental functions were normal. Tone was decreased with power of 0/5 across all joints in lower limbs. Knee and ankle jerk were not elicitable at admission but became brisk after 6 days. Abdominal, cremasteric and anal reflexes were absent. Babinski response was positive bilaterally. There was no evidence of any liver disease/ drug intake or chronic diarrhea. There was no history of similar illness and family history was negative. The child was born at term and did not receive vitamin K

injection at birth. He was on exclusive breast feeding since birth.

Both PT and APTT were deranged (PT 96.0 s against 27s, PTTK >120s against 12s, PT index=3.55) with a normal platelet count ($480 \times 10^3/\mu\text{L}$). Peripheral smear showed microcytic hypochromic RBCs and normal platelet morphology. Liver function tests including serum bilirubin, SGPT, ALP and albumin were normal.

Child was given intravenous vitamin K (5 mg) and packed red cells (in view of Hb 2.9 g/dL). Bleeding stopped after vitamin K administration and PT/PTTK normalised within 24 hours. MRI spine revealed posterior epidural hemorrhage in lower thoracic and lumbar region at and below T11/T12 level. At discharge (after 10 days), power at both hips, both knees and both ankles improved to 3/5, 2/5 and 1/5, respectively. On follow up after 1 month, power at both hips, both knees and both ankles was 4/5, 3/5, and 2/5, respectively and urinary complaints had subsided.

We conclude that paraplegia should be considered as one of the important cause of spinal hemorrhage, especially in infancy.

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