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/mucous 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 or 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 (480×10³/µL). 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.

ACKNOWLEDGMENT

Dr Bhuvnesh Guglani, Consultant MRI, Focus MRI, IHBAS, Delhi, for giving his expert opinion.

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