Pre-Infantile Tremor Syndrome: A Case Report

A Child with Megaloblastic Anaemia in Pre-Infantile Tremor Syndrome: A Case Report

Abstract: Pre-infantile tremor syndrome is a prodromal phase of infantile tremor syndrome affecting children between 5 months to 3 years. It is characterized by vacant look, mental or motor regression, and apathy, inability to recognize mother, lethargy and poor interest in the surroundings. Megaloblastic anaemia due to vitamin B12 deficiency is a common feature of the disease. The case discussed presented in a regional healthcare institute with severe anaemia. On workup she was diagnosed as pre-infantile tremor syndrome and managed accordingly.

Keywords: Infantile tremor syndrome, megaloblastic anaemia, severe malnutrition, micronutrient deficiency.

INTRODUCTION

Infantile tremor syndrome [ITS] is a clinical syndrome characterized by sudden or insidious onset of tremors, mental and psychomotor symptoms and pigmentary changes of skin and hair. It occurs in malnourished children aged between 5 months to 3 years [1]. Its exact etiology and pathogenesis is still unknown but various factors like malnutrition, infections, vitamin or mineral deficiencies and toxins have been attributed to its occurrence. Studies have demonstrated vitamin B12 deficiencies in children with ITS [2]. Pre-infantile tremor syndrome is prodromal phase in the disease without apparent tremors. This phase is characterized by vacant look, mental or motor regression, and apathy, inability to recognize mother, lethargy and poor interest in the surroundings. There can be pallor along with pigmentary changes over hands, feet, knees, ankles, wrist and terminal phalanges [1]. The author presents a case report of the child in pre-infantile phase of ITS.

CASE:

A 6.5 months old female child, developmentally gaining milestone age appropriate and immunized for age, presented in the OPD of a regional healthcare institute of North India with progressive pallor for 2-3 weeks, fever and breathing difficulty for 3 days. Fever was low-grade and relieved on medication. There was no rash associated with fever. Breathing difficulty was progressive in form of increased work of breathing. She was lethargic and irritable. She was born by full term normal vaginal delivery with average birth weight. On examination she was found to be in respiratory distress and compensated hypovolemic shock. There were signs of dehydration, micronutrient deficiencies, severe pallor, knuckle hyper-pigmentation, wasting and hepatomegaly. Clinical diagnosis of severe anaemia with congestive cardiac failure [CCF] with pre infantile tremor syndrome [pre-ITS] and severe acute malnutrition [SAM] was kept. Her blood examination showed hemoglobin as 2.3 g%, macrocytes and bicytopenia. She was started on nasoprong oxygen and ionotrops after slow IVF bolus. Dehydration correction was given and packed red blood cell was transfused in 3 small aliquots. She was started on intravenous ceftriaxone and all other micronutrients. She was started on intravenous cobalamin in view of megaloblastic anaemia. Her respiratory distress and shock became passive by 48 hours of hospital stay and she was made off ionotrops and oxygen. She was switched on to oral feeds on day 5 of hospital stay and was gaining weight. Antibiotics were completed for total of 7 days. At discharge child was afebrile, hemodynamically stable. She was accepting spoon feeds well and weighing 5.9 kg with weight gain of 25gm/kg/day.
DISCUSSION:

The case discussed above is female child of 6.5 months old. Studies suggest equal male: female predisposition or slightly male predominance of children affected with ITS [3, 4]. Studies suggest that the disease is more common between 6 and 18 months [5]. The reason for this age presentation could be faulty introduction of complementary feeding and predominant breastfeeding. Hence there are associated micronutrient deficiencies in children with ITS. The present case had clinical presentation of pre-infantile tremor syndrome. On examination there were pallor and hyper-pigmentation and blood investigations were suggestive of B 12 deficiency. Management of ITS is mainly empirical, it includes vitamin B12, folic acid, iron, calcium, zinc, magnesium and high protein diet [6]. Infant stimulation is also important to reduce long-term neuro-developmental complications. For management of tremors, many drugs have been tried, including phenobarbitone, chlorpromazine, carbamazepine and propranolol [7]. But as the child didn’t has the tremors so she was not given medication for the same. Child responded well to treatment and discharge on follow-up.

REFERENCES: