A CASE REPORT OF PRE-INFANTILE TREMOR SYNDROME PRESENTING WHEEZE ASSOCIATED LOWER RESPIRATORY INFECTION

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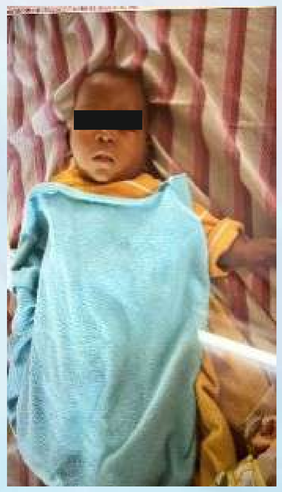
INTRODUCTION

Infantile tremor syndrome (ITS) is rare clinical disorder commonly seen in children of 5 months to 3 years age characterized by tetrad of coarse tremors, anemia, developmental delay/regression and pigmentary disturbance of hair and skin. This disorder is common in exclusively breast fed infant of vegetarian mothers. The disease is self-limiting but the child is frequently left with cognitive, language and neuro deficits which will affect the quality of life.[1] Early diagnosis of ITS in the pre-tremor phase (pre-ITS stage) will improve prognosis of the patient.

CASE REPORT

An eleven months old male patient with delayed milestones was brought to Paediatric OPD by his parents with chief complaints of refusal feeding and cough since 2-3 days with no other associated symptoms. The child was exclusively breastfed and no complementary feeds were introduced.

On physical examination the patient had sparse hair, puffy face, pallor skin, flat or broad nails, hyper pigmented knuckles, hypotonia, tremorous voice and mild stridor with following vitals: Pulse- 102/min, BP- 82/58, RR- 25/min, Temp- 98.7o C and SpO2- 99%. On investigation, anemia with severe anisopoikilocytosis, sickling trait and dimorphic RBC were seen. All these signs pointed to pre-ITS with associated lower respiratory tract infection.



In our case, Treatment was consisted of correction of vitamin B12 deficiency via injection Eldervit and oral multivitamins, Folic acid, iron in syrup form along with symptomatic treatment was given for cough and cold. After starting injectable B12, multivitamins, iron, folic acid and antibiotics, the symptoms considerably improved and given discharge.

Parameters	Values	Reference range
Hemoglobin	7.5	12.015.0 g/dL
WBC	11150	4000 - 10000 /µL
Platelets	721000	140000-450000 /µL
Peripheral-smear	Severe anisopoikilocytosis Dimorphic population is seen. Mainly microcytic hypochromic RBCs with normocytes, elliptocytes, target cells, few tear drop cells and few sickle shaped RBCs are seen. Few reactive lymphocytes are seen.	
B12	139	180 – 914pg /mL
CRP	0.7	
T. Bil	0.7	0.2–1.3 mg/dL
D. Bil	0.3	0.0–0.3 mg/dL
Ind. Bil	0.4	0.0 - 1.1 mg/dL
SGPT	20.0	0–50 U/L
SGOT	5.0	17.0- 59.0 U/L
ALP	105	60–300 U/L
T. Protein	6.40	6.3–8.2 g/dL
Albumin	4.4	3.5–5.0 g/dL
Globulin	2.0	2.3–2.5 g/dL
AG Ratio:	2.20	0.8-8 1.2

DISCUSSION

In our case patient was exclusively on breastfeeding to strict vegetarian mother and presented with anemia, sparse hair, pallor skin, flat or broad nails, hyper pigmented knuckles, hypotonia, tremorous voice which are similar clinical feature to ITS without tremors which is pre-tremor phase of ITS.[2] Patient showed improvement after treating patient with vitamin B12, iron, folic acid and multivitamins. Pre- ITS is most commonly seen in developing countries with poor socio-economic conditions such as Southeast Asia, Indian subcontinent and African countries.3Exact cause is not known.[3] Etiology has been postulated as multifactorial in the past including infections, degenerative processes, and nutritional deficiencies such as iron, magnesium, and zinc but no consensus has been reached till date. Most of the studies have found association with vitamin B12 deficiency.[4]

CONCLUSION

ITS needs to be considered in any child less than three years presenting with anemia, developmental delay/regression, skin depigmentation and sparse hair, with or without tremors. To prevent long term cognitive impairment, early detection and treatment are necessary.

Conflict of interest : None

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