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Case Report

Guillain–Barre Syndrome (GBS) in a 2 Month Old Infant: A Case Report

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Abstract: Guillain–Barre syndrome (GBS) is an acute immune mediated progressive predominantly motor symmetric poliradiculoneuropathy. Although GBS can occur at any age it is very rare in infancy. Very few cases of have been reported under 12months of age. We report a case of GBS in a 2 month 10 days old male baby.
Keywords: Gullain Barre Syndrome, Polyradiculoneuropathy

INTRODUCTION:

Guillain–Barre syndrome (GBS) is an acute immune mediated peripheral polyneuropathy mostly characterized by progressive, symmetric weakness, paresthesias and areflexia/hyporeflexia combination. Although GBS is the most common cause of acute flaccid paralysis in children, it is rare under the age of 2 years and so far, only few cases have been reported under the age of 12 months [1, 2].

CASE REPORT:

A 2 month 10 days old male child presented with loose stool for 7 days and weakness of both lower limbs for 2 days. There was no history of trauma, fever, vomiting, convulsion and recent vaccination. There was no history of urinary retention. The child was singleton, term, adequate for gestational age and born out of LSCS (Indication: Gestational diabetes) with no history of birth asphyxia. Antenatal history was uneventful. Examination revealed HR: 120/minute, RR: 42/minute, peripheral and central pulses were well felt and CRT was less than 3 seconds. Neurological examination revealed hypotonia, areflexia and absence of power in both lower limbs. The Head circumference was appropriate for age and there was no evidence of any neurocutaneous marker. Investigation revealed Hemoglobin: 10.0 gm/dl, Total leucucyte count: 6000 /cmm with Neutrophil: 42%, Lymphocyte: 53%, Eosinophil: 03%, Monocyte: 02% and Basophil: 00%, Total platelet count: 2.8 lakhs/cmm, Serum Sodium: 132.96 meq/L, Potassium: 4.09 meq/L, Calcium: 1.08 meq/L. CSF study performed after 1st week and revealed 3 lymphocytes with protein: 151.77 mg/dl and sugar 55.9 mg/dl. NCV study was within normal limits in both upper limbs but in both lower limbs proximal latency was increased and CMAP and conduction velocity in bilateral tibial nerve and common peroneal nerves were decreasd and F wave was also absent, suggestive of grossly axonal and demyelinating type of motor polyneuropathy. MRI of spine was normal. Stool for polio virus was negative. Child was given two doses of intravenous immunoglobulin at 1 g/kg/day. The child was discharged home and regularly followed up. There was a gradual improvement in power in next 4 weeks.

Fig 1: Showing a 2 month old infant with GBS

DISCUSSION:

GBS is an autoimmune disorder often considered a post-infectious polyneuropathy involving mainly motor but also sensory and sometimes autonomic nerves [3, 4]. The paralysis usually follows a non specific gastrointestinal (especially Campylobacter jejuni, but also Helicobacter pylori) or respiratory (especially Mycoplasma pneumoniae) infection by approximately 10 days [4, 5]. GBS is also reported following administration of vaccines against rabies, influenza and OPV [6]. The classical presentation is characterized by an acute monophasic, nonfebrile, postinfectious illness manifesting as ascending weakness, and areflexia. Sensory, autonomic, and brainstem abnormalities may also be seen [7]. In our case GBS was suspected by clinical presentation but age of the patient caused diagnostic dilemma. The diagnosis was confirmed by CSF study which showed albuminocytological dissociation and suggestive NCV findings. Differential diagnosis was spinal cord lesions like poliomyelitis, other causes of peripheral neuropthies like toxic and metabolic causes, congenital myopathies and neuromuscular junction disorders like myasthenia gravis, tick paralysis and infantile botulism [8]. They were excluded by history, physical examination and laboratory investigations.

CONCLUSION:

Though GBS can occur at any age, GBS in infancy is rare and very few cases have been reported in less than 6 months. The possibility of GBS should keep in mind while dealing with infants with acute flaccid paralysis so that early diagnosis with prompt treatment can significantly improve the outcome.

Conflict of interest: none

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