Pediatrics & Primary HealthCare 2018, Volume 22
DOI: 10.4066/0971-9032-C1-003

How different is demyelinating and axonal subtypes of Guillain-Barré syndrome (GBS) in children? A study from tertiary care centre in Northern India

Pradeep Kumar Gupta, Naveen Sankhyan, Pratibha Singhi and **Sunit Singhi**
Siddhi Memorial Hospital, Bhaktapur, Nepal

Introduction: Studies comparing the Demyelinating GBS (Dmy-GBS) and axonal GBS (Ax-GBS) subtype in children are lacking.

Methods: In this hospital based, prospective and observational study, consecutive children with GBS were studied to compare the clinical profile and outcome among the subtypes.

Results: Among 9847 children admitted to the emergency, 95 had acute flaccid paralysis, 57 of whom had GBS. Electrophysiologic studies were completed in 56, of whom 20 each had Dmy-GBS and Ax-GBS(19 motor axonal), 12 had non-reactive nerves, and 5 unclassifiable findings. Mean age of onset in Dmy-GBS was 55 months while Ax-GBS occurred later at 84 months. More children in Ax-GBS group had preceding gastroenteritis (4 vs 2), while Dmy-GBS had upper respiratory infections (12 vs 7). Mean time from onset of symptoms to hospital admission was more in Dmy-GBS 18 days to 8 days in Ax-GBS. Ataxia was only seen in Dmy-GBS while wrist drop, foot drop and hyperreflexia were seen only with Ax-GBS. Asymmetry of motor findings was more likely in Ax-GBS(10vs4 P=0.048).Respiratory muscle involvement (6 vs 3) and artificial ventilation (5 vs 2) was more in Ax-GBS. The average duration of hospital stay was more in Ax-GBS 16 days to 11 days in Dmy-GBS. Children with Ax-GBS less likely to be non-ambulant at discharge (12 vs 6, p=0.036). Mean disability scores at hospital discharge (4.9±1.2 vs 4±0.9, p=0.015) and at last follow up (0.7±1.01 vs 0.05±0.2, p=0.016) were higher in Ax-GBS. Children with Dmy-GBS were more likely to achieve normalcy on follow up (19 vs 12, p=0.023). IVIg was the treatment modality and was tolerated well with no side effects reported with no relapse of symptoms after treatment.

Conclusion: Axonal and demyelinating subtypes of GBS are equally common in children of North India. Children with axonal GBS have severe clinical course and more short term morbidity and slower recovery.

e: drpradeepgupta87@gmail.com