

How Different Is Demyelinating and Axonal Subtypes of Guillain-Barré Syndrome (GBS) in Children? A Study From Tertiary Care Centre in Northern India



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Abstract

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 studies, 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. Mean time from onset of symptoms to hospital admission was more in Dmy-GBS 18 days to 8 days in Ax-GBS. Asymmetry of motor findings was more likely in Ax-GBS (10 vs 4 $P=0.048$). 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. 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.

Biography

Pradeep Kumar Gupta, is Nepalese citizen, currently working as a Pediatrician in Department of Pediatrics in a non government non profitable hospital in Nepal. He has completed his post-graduation (MD Pediatrics) from PGIMER, Chandigarh, India. He was awarded scholarship provided by Indian government to pursue my post-graduation in India. By young age of 30 years He has completed Fellowship in Neonatology by Indian Academy of Pediatrics. He did his undergraduate (MBBS) from BPKIHS, Nepal and He was university topper during my basic science exam. His ongoing research is on septic markers in newborn and use of bubble CPAP in resource limited setting.



Annual Meeting on Pediatrics and Neonatology, June 26-27, 2020

Citation: Pradeep Kumar Gupta, *How Different is Demyelinating and Axonal Subtypes of Guillain-Barré Syndrome (GBS) in Children? A Study From Tertiary Care Centre in Northern India*, Pediatrics 2020, Annual Meeting On Pediatrics And Neonatology, June 26-27, 2020, Pp. 18-19.