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The Electrophysiology Study Results in Patients with Guillain Barre Syndrome (GBS): A Retrospective Study in a TertiaryHospital in Cebu City, Philippines

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Abstract : Guillain Barre syndrome is an acute inflammatory polyradiculoneuropathy causing progressive symmetrical weakness which can be debilitating to the patient. Early diagnosis is important especially in the acute phase when treatment favors good outcome and reduces the incidence of the need for mechanical ventilation. Electrodiagnostic studies aid in the evaluation of patients suspected with GBS. However, the characteristic electrical changes may not be evident until after several weeks. Thus, studies performed early in the course may give unclear results. The aim of this study is to associate the symptom onset of patients diagnosed with Guillain Barre syndrome with the EMG NCV results and determine the earliest time when there is evident findings supporting the diagnosis. This is a retrospective descriptive chart review study involving patients of >/= 18 years of age with GBS written on their charts in a Tertiaty hospital in Cebu City, Philippines from January 2000 to July 2014. Twenty patients showed electrodiagnostic findings suggestive of GBS. The mean day of illness when EMG NCV was carried out was 7 days. The earliest with suggestive findings was done on day 2 (10%) of illness. Moreover, the highest frequency with positive results was done on day 3 (20%) of illness. Based on the Dutch Guillain Barre Study group criteria, the most frequent variables noted were: prolonged distal motor latency in both median and ulnar nerves(65%) and both peroneal and tibial nerves (71%); and reduced CMAP in both median and ulnar nerves (65%) and both tibial and peroneal nerves (71%). The EMG NCV findings showed majority of demyelinating type (59%). Electrodiagnostic studies are helpful in aiding the physician in the diagnosis and treatment of the disease in the early stage. Based on this study, neurophysiologic evidence of GBS can be seen in as early as day 2 of clinical illness.

Keywords : Acute Inflammatory Demyelinating Polyneuropathy, electrophysiologic study, EMG NCV, Guillain Barre Syndrome
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