

Predictive factors associated with severity of carpal tunnel syndrome in multiethnic Asian patients

ABSTRACT

Objective: Carpal tunnel syndrome (CTS) is the commonest entrapment neuropathy referred for electro diagnostic evaluation. The objective of this study is to evaluate the risk factors associated with CTS and their relationship with the severity in nerve conduction abnormality. **Methodology:** This study was based on the retrospective data analysis of patients who were electro-physiologically diagnosed as CTS in a tertiary neurophysiology service. Patients were divided into 2 groups; non-severe and severe CTS. Factors, which include age, gender, ethnicity, laterality of CTS, symptoms and diabetes mellitus were analyzed separately and compared with severity of CTS based on NCS. **Results:** We analyzed 144 patients with age ranging from 18 to 76 years. Patients with bilateral CTS were 4 times more likely at risk to developed severe CTS while diabetes mellitus patients are 2.5 times more likely. There was no significant association found between age, gender, ethnicity and symptomatic patients with the CTS severity. **Conclusion:** This study shows that patients with bilateral CTS and diabetes mellitus are at higher risk in developing severe CTS. Therefore, early screening with NCS is recommended in these groups of patients.

Keyword: Carpal tunnel syndrome; Median neuropathy; Median nerve; Neural conduction; Risk factors