

A Study of Nerve Conduction Properties in Labourers

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Abstract

Thirty healthy male volunteers who are labourer by occupation were included in the study after their informed written consent to participate. All the participants were examined to exclude any history of orthopedic, systemic or neuromuscular disorder by relevant history taking with psychological, musculoskeletal and neurological examination. Subjects were excluded if any one of them is not fit to the inclusion criteria. A NEUROPERFECT 2000 machine was used to check nerve conduction properties of the subjects. The study was conducted to know the nerve conduction properties of median nerve in healthy male labourer for dominant and non dominant hand. The nerve conduction properties studied for motor and sensory nerve were latency, amplitude and nerve conduction velocity of median nerve for dominant and non dominant hand of the subjects. The site of stimulation for motor median was the wrist; elbow and axial and recording site were motor point of Abductor Pollicis Brevis. The results indicate that there is no statistical significant difference in median motor nerve conduction properties as well as in median sensory nerve conduction properties of dominant and nondominant hand of labourer sample. Furthermore the MNCV and SDL of median nerve for dominant hand are lower than the referred healthy subjects reported in earlier studies it may be due to the working requirement of handloom industry (i.e. repetitive movement) and SNAP amplitude is lower only than that reported by Shehab as he measured it from negative peak to subsequent positive peak which was different than our procedure.

Key words: Labourers, Median Nerve, Motor, Sensory, Amplitude, Latency

Introduction

An activity that serves as one's regular source of livelihood or the principal activity in life that one does to earn money is known as occupation. There are various occupations in which people are involved to earn money. Labourer is a person engaged in physical work, especially of an unskilled kind.

Nerve conduction study (NCS) is a standard procedure for the evaluation of peripheral neuropathy. In the peripheral nervous system, the nerve fibres of various diameters and functions (motor and sensory) are bundled together by the

connective tissue to form nerves. NCS help in delineating the extent and the distribution of neural lesions and they distinguish two major categories of peripheral nerve diseases: demyelination and axonal degeneration (Kimura, 1984). The Increased use of NCS in clinical trials and research, and attention to quality in health care has heightened interest in the reliability of results. The results may be used as a basis for diagnosis and in pre-placement examinations for work restrictions, such as those related to carpal tunnel syndrome (CTS). A variety of tests