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AN ELECTROPHYSIOLOGICAL STUDY OF CARPAL TUNNEL SYNDROME

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This paper is based on the electrophysiological findings in 36 patients with carpal tunnel syndrome. The age range of the patients was 31-54 years. All except two patients were females. In 19 patients there was electrophysiological evidence of bilateral involvement; right hand was affected in 91.7% of the patients and the left hand in 61.1%.

Sensory conduction velocity of the median nerve from digit II to wrist (SCV), amplitude of the sensory action potential (SAP) and the terminal latency of the median nerve from wrist to abductor pollicis brevis (TL) were the parameters used in diagnosis. Abnormalities in the absolute values as well as relative abnormalities as shown by a significant asymmetry were considered. In the 55 instances of median nerve compression at the carpal tunnel, the frequency of abnormalities in the absolute values was as follows:

Slowing of SCV in 83.3%; Prolongation of TL in 80.1%; Reduction of SAP in 77.1%

In addition, slowing of motor conduction velocity in the proximal segment of the median nerve was observed in 32.7%.

The results show that measurement of sensory conduction increase the sensitivity of electrophysiological diagnosis of carpal tunnel syndrome.

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