

Abstract Information

* Abstract Title: Sensitivity and Specificity of Phalen's Test and Tinel's Test in Patients with Carpal Tunnel Syndrome

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* Name Of the Topics: Neurointensive , Neuroinfectious, Neuroepidemiology

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* Abstract: Introduction: Carpal Tunnel syndrome (CTS) is the most common cause of paraesthesia in the hands and it is the most common entrapment neuropathy in the upper and lower limbs . The symptoms are variable, but episodes of burning pain or tingling in the hand are common. Diagnosis of CTS is mainly clinical based on suggestive history and Physical examination. Several physical signs are associated with carpal tunnel syndrome, including Tinel's test and Phalen's test. The objectives of this study are to determine the sensitivity and specificity of the Phalen's and Tinnel's tests in the diagnosis of Carpal Tunnel Syndrome and to analyze how such factors as patients age and duration of symptoms influence these parameters. Materials and Methods: This is a prospective study comparing two groups (patient & control). Fifty cases (40 females and 10 males) who fulfilled the National Institute of Occupational Safety and Health (NIOSH) criteria for diagnosis of CTS attending physiotherapy unit in Loghman hakim Hospital in Tehran-Iran .The control group included (40females and 10 males) who were healthy asymptomatic volunteer .The duration of the study was eight months from 1st may 2017to 1st February 2017. Both groups were assessed by Phalen and Tinel tests. Results: : In the patient group 39(78%)cases were having positive phalen and 33(66%) cases had positive tinel test while in the control group 3 (6%) were having positive phalen and 12(24%) controls had positive tinel test. The resulting specificity and sensitivity of Phalen test for the patient and control groups were 94% and 78%respectively while specificity and sensitivity of Tinel test were 77% and 66% respectively. Conclusions: Phalen test is more specific and sensitive than Tinel test so it is essential in the diagnosis of CTS particularly when the Nerve Conductive Study (NCS) is not available.

* Keywords: Carpal Tunnel Syndrome, Phalen Test, Tinel tests