

Work-Related Musculoskeletal Disorders

RA Werner et al. *Muscle and Nerve*. September (2001) Vol.24 #11 p 1462.

Accurate health surveillance or pre-placement screening would be useful in protecting employees from carpal tunnel syndrome (CTS).

This study was designed to determine whether median sensory latency is predictive of the development of CTS symptoms?

Prospective study of 77 asymptomatic workers. Tested for median nerve latency.

Re assessed 70 months later (nearly six years) for changes in median nerve sensory latency and emergence of CTS symptoms (defined as pain, numbness, tingling, or burning in the median distribution).

Follow up rate = 70%, it was not clear what had happened to the remaining 30%, some might have left employment for health reasons.

Of those with baseline abnormalities, 23% went on to develop CTS symptoms, compared with 6% in the normal baseline group.

Becoming symptomatic had no correlation with change in latency.

A clear majority of people who were abnormal at baseline do not go on to get CTS on a 70-month time scale, but the RR for those with abnormal sensory latencies to get CTS is about 4 when compared to those with normal latencies.

Comment

Much work needs to be done on defining normal and abnormal sensory latencies if this approach is to be decisive in shaping employment prospects. It should be noted that according to this work, abnormal sensory latency is predictive of some symptoms of CTS and it is not known if the same would be true for clinical diagnoses.

Many commentators assume an aggravation model for CTS. The low conversion rate reported in this research suggests that if CTS can be aggravated, the predominant cause of aggravation may be difficult to isolate. The work strongly suggests that median sensory latency is not progressive and should not be used in studies to determine risk factors for CTS.

