The prevalence of carpal tunnel syndrome in athletes of sport for people with disability

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The increase in the number of athletes in sports for people with disabilities (SPD) has been growing all over the world. Surveys conducted with these athletes showed alterations in the median nerve in ultrasound and electrical studies. We did not find research on the clinical signs and symptoms of Carpal Tunnel Syndrome (CTS) or the need for some type of treatment in SPD.

**Objective:** evaluate the clinical signs and symptoms of CTS in SPD, as well as the need for clinical and/or surgical treatment.

**Material:** Seventh two athletes in SPD that involved palmar grip or hand support in the flat position and flexion of the wrist when supporting the weight of the body, regardless of wheelchair use.

**Method:** The athletes were evaluated by the visual analogue scale for pain, presence of nocturnal paraesthesia, Tinel signal, Phalen test, Boston and the CTS-6 questionnaires. It was defined for this study that the presence of two or more signs/symptoms would characterize carpal tunnel syndrome.

**Results:**

The mean age of these athletes was 32 years, ranging from 14 to 53 years. Of these, 29 (40%) were weightlifters, 13 (18%) were volleyball players sitting, 13(18%) wheelchair fencers, 13 (18%) wheelchair basketball players, 2 (3%) capoeiristas and 2 (3%) table tennis players.

Fifteen athletes had at least one sign or symptom in a total of 20 hands. The presence of only one clinical symptom occurred in 8 (11%) right hands and 6 (8%) left hands, in a total of 11 athletes. The presence of two concomitant clinical symptoms occurred in 4 (6%) right hands and 3 (4%) left hands, in a total of 6 athletes. The presence of three concomitant clinical symptoms did not occur in any hand (athletes).

In the Boston questionnaire, for the right hand, the mean score was 11.76 and for the left hand it was 11.38. In the CTS-6 questionnaire, for the right hand, the mean score was 1.07 and for the left hand it was 1.05.

We did not find a relation between the presence of signs and/or symptoms, the type of adapted sport, whether the wheelchair, the dominant side and the time of sports practice.

The few athletes who reported some signs and/or symptoms of CTS showed no interest in performing complementary tests or some type of treatment.

**Conclusion:**

The prevalence of carpal tunnel syndrome in the 72 disabled athletes who practice adapted sport was 6 in 72 (8%).