A recent study suggests that individual risk factors such as body mass index (BMI), wrist dimension ratio, steroid use, menopause and more may influence the likelihood of developing carpal tunnel syndrome (CTS), according to the American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM).

In a cross-sectional study performed on 1,000 patients with arm pain between July 2007 and August 2008, 250 cases (comprised of 34 men and 216 women) were diagnosed with CTS based on electrodiagnostic criteria. An additional 750 cases (102 men and 648 women) that did not have CTS were also included in the study.

The following factors were assessed: BMI, wrist anterior-posterior/medial-lateral diameter ratio, occupation, history of steroid use, family history, diabetes mellitus, thyroid disease, congestive heart failure, history of wrist fracture, smoking, use of oral contraceptive pills, history of hysterectomy, and menopause.

The study found a prevalence of CTS of 25 percent in the group studied. Mean BMI was higher in CTS patients in both genders and the wrist dimension ratio was also found to be higher in the CTS group. The study also found:

- Steroid use was reported in 2 percent of the control group and in 8 percent of the CTS group.
- Diabetes mellitus was found in 4 percent of the control group and in 11.2 percent of the CTS group.
- Of the control group, 8.8 percent had reached menopause, as compared to 25.2 percent in the CTS group.
- The ratio of women to men with CTS was 7 to 1.

In this specific study group, diabetes, high BMI, wrist dimension ratio, hormonal changes associated with menopause and steroid use were positively associated with CTS, stated Dr. Seyed M. Rayegani. Due to the high prevalence of carpal tunnel syndrome, especially in women, it is recommended that physicians refer patients with hand pain, numbness and night awakening of hand numbness for evaluation by a trained electrodiagnostic physician.
The American Academy of Orthopaedic Surgeons (AAOS) has approved and released the evidence-based clinical practice guideline on The Treatment of Carpal Tunnel Syndrome.

Carpal tunnel syndrome isn't limited to employees who spend their days at the keyboard; it also can affect workers commuting long hours by car or using cell phones while driving.

Treatment of CTS is based on the stage of the disease. In mild and early stages conservative treatment using medication, a wrist splint, or job modification can improve symptoms. More advanced stages may need more aggressive treatments such as surgery, Rayegani added.

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