

ASSESSING HAND GRIP STRENGTH OF UPPER EXTREMITIES: A COMPARITIVE STUDY

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Purpose: This study was carried out to compare of hand grip strength between subjects with nonspecific neck pain (NNP) and healthy controls.

Methods: Eighty participants (40 with NNP; 40 healthy controls) were evaluated using by a hand held dynamometer and then compared in terms of both sides, right and left hands. A Visual Analog Scale was also used to describe pain intensity.

Results: The mean age of the subjects with NNP (group I) and healthy controls (group II) were 45.9 ± 11.7 yr., 43.5 ± 7.9 yr., respectively. The mean of daily working hours of the patients and healthy controls were 10.1 ± 2.3 hr/week. And 10.1 ± 2.0 hr/week, respectively. The mean of pain duration was 32.6 ± 30.6 months, for the patients (mean of pain intensity at rest: 4.6 ± 3.2 ; intensity of pain during activity: 6.6 ± 3.0 ; intensity of night pain: 5.6 ± 3.7). The mean of hand grip strength for right side in patients was 25.1 ± 13.6 kg, 28.7 ± 9.9 kg for right side in healthy controls. The mean of hand grip strength for left side in patients was 24.0 ± 11.9 kg, 26.0 ± 9.8 kg for left side in healthy controls. The results of this study showed that the hand grip strength scores were not found to be different between the patients and healthy controls ($p=0.254$ for right side; $p=0.419$ for left side).

Conclusion: The results obtained from this study indicate that pain is not an important factor in terms of hand grip strength in the sample just studied in this research.