<https://doi.org/10.47660/CBR.2020.17226>

RELATIONSHIP BETWEEN THE ASSESMENT BODY MASS INDEX AND NEUROPHYSIOLOGICAL CLASSIFICATION OF CARPAL TUNNEL SYNDROME

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BACKGROUND

Carpal tunnel syndrome (CTS) is the most common entrapment neuropathy in humans and can be associated with a wide spectrum of severity. The association between CTS and overweight/obesity is well established, but few studies have evaluated this relationship with the severity of CTS.

MATERIALS AND METHODS

Cross-sectional study, including 115 database CTS patients, correlating CTS neurophysiological severity with demographic (age, gender and race) and anthropometric parameters (BMI). All patients had idiopathic CTS and secondary causes were excluded. A statistical analysis was performed using software R version 3.2.2. Normality was tested with the Kolmogorov-Smirnov test, the association between categorical variables with Fischer's exact chi-square and a correlation between continuous variables with the Pearson test. Significant values of $p < 0.05$ were considered.

RESULTS

The majority of patients were female (89.6%), non-white non-black people (51.3%), with overweight / obesity (78.5%) and with mean age of presentation being 50.67 years. In regard of CTS neurophysiological severity, mild CTS were 31.3%, moderate 51.3% and severe 17.4%. Black and non-white non-black people predominated in moderate CTS (83.33 and 59.32%, respectively) and white people in mild CTS (43.18%), with no significant association of severity of CTS with gender or BMI ($p > 0.05$).

CONCLUSION

Moderate CTS is associated with black and non-white non-black people and mild CTS with white people. There is no relationship between CTS severity with BMI or gender. Further studies are needed in order to identify factors related to greater severity of CTS.