

# Anterior disc displacement and the superior head of lateral pterygoid muscle. A case-control study [Desplazamiento discal anterior y la cabeza superior del músculo pterigoideo lateral. Un estudio caso-control]

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The objective of this study was to assess the association between an increase in the proportion of the superior head of the lateral pterygoid muscle (SHLP) inserted into the temporomandibular joint (TMJ) disc and the presence of anterior disc displacement diagnosed by using MRI. We analyzed 75 images of patients with anterior displacement and 75 controls with normal relationship between the mandibular head and the articular tubercle also diagnosed by MRI. Levels of insertion were measured. Descriptive and analytic statistics were calculated. Analyses of differences were made by Fischer's exact test and also were calculated clinical significance (OR, CI = 95%). The average insertion of SHLP was 71.14% (SD 14.13) in controls and 67.80% (SD.16.23) in cases group. The only relationship that presented a significant association (OR 5.61) was found when comparing subjects with a percentage of inserting the disc into the SHLP at <math>\leq 50\%</math> with those who had higher levels of insertion (50%). Our results suggest that the highest percentage of insertion serves as a protective factor for anterior disc displacement, probably due to greater control of neuromuscular activity.

Anterior disc displacement

Articular disc

Lateral pterygoid muscle

Temporomandibular joint