

Changes in Masseter Muscle Trigger Points Following Strain-Counterstrain or Neuro-Muscular Technique

Jordi Ibáñez-García PT, DO^a, Francisco Alburquerque-Sendín PT, DO^{a, b}, Cleofás Rodríguez-Blanco PT, DO^{a, c}, Didac Girao PT, DO^a, Albert Atienza-Meseguer PT, DO^a, Sergi Planella-Abella PT, CO^a and César Fernández-de-las Peñas PT, DO, PhD

The aim of this study was to compare the immediate effects, on pressure pain sensitivity and active mouth opening, following the application of neuromuscular or strain/counter-strain technique in latent myofascial trigger points (MTrPs) in the masseter muscle. Seventy-one subjects, 34 men and 37 women, aged 20–65 years old, participated in this study. Subjects underwent a screening process to establish the presence of MTrPs in the masseter muscle. Subjects were divided randomly into three groups: group A which was treated with a neuromuscular intervention, group B treated with the strain/counter-strain technique, and group C as control group. Each treatment group received a weekly treatment session during 3 consecutive weeks. Outcomes measures were pressure pain thresholds (PPTs), active mouth opening and local pain (visual analogue scale, VAS) elicited by the application of 2.5 kg/cm² of pressure over the MTrP. They were captured at baseline and 1 week after discharge by an assessor blinded to the treatment allocation of the subject. The ANOVA found a significant group×time interaction ($F=25.3$; $p<0.001$) for changes in PPT, changes in active mouth opening ($F=10.5$; $p<0.001$), and local pain evoked by 2.5 kg/cm² of pressure ($F=10.1$; $p<0.001$). Within-group effect sizes were large ($d>1$) for PPT and mouth opening, and moderate for local pain ($d<0.7, 0.5$) in both intervention groups; but small ($d<0.2$) for the control group in all outcomes. No significant differences between both intervention groups were found for any outcome ($p>0.8$). Our results suggest that neuromuscular or strain/counter-strain technique might be employed in the management of latent MTrPs in the masseter muscle.