

# TRIGGER POINTS IN HEAD AND NECK MUSCLES IN INDIVIDUALS WITH MYOFASCIAL TEMPOROMANDIBULAR DISORDERS

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**Background and Aim:** It is suggested that muscle trigger points (TrPs) can be involved in the genesis of the pain in myofascial temporomandibular disorders (TMD). Our aim was to investigate in a blinded design the presence of TrPs in head and neck muscles in subjects with myofascial TMD and no comorbid pain conditions as compared to healthy controls.

**Methods:** Fifteen women (age:  $21 \pm 4$  years) with myofascial TMD according to the RDC/TMD and 15 healthy women (age:  $21 \pm 3$  years) were included. TrPs in deep and superficial masseter, temporalis, upper trapezius, sternocleidomastoid, and suboccipital muscles were bilaterally identified according to Simons et al criteria: hypersensible spot within a palpable taut band, local twitch response elicited by snapping palpation and presence of local and referred pain. TrPs were active when the referred pain reproduced pain symptoms of the subject, whereas TrPs were latent when the referred pain did not reproduce symptoms.

**Results:** The mean number of TrPs in TMD patients was 7.4 (SD: 2.4) active TrPs and 2.7 (SD: 2.0) latent TrPs. Controls only exhibited latent TrPs (mean: 1.5; SD: 1.0). Significant difference between groups were found for both active ( $P < 0.001$ ) and latent TrPs ( $P = 0.03$ ). Active TrPs in the deep masseter ( $n=11$ ,  $n=14$  right / left side), upper trapezius ( $n=10$ ,  $n=12$ ), temporalis ( $n=9$ ,  $n=11$ ) and superficial masseter ( $n=8$ ,  $n=12$ ) muscles were the most prevalent within TMD subjects.

**Conclusions:** Active TrP in head/neck muscles may be involved in the pathophysiology of myofascial TMD pain.

**Key words:** Muscle trigger points, temporomandibular disorder, referred pain.