



Influence of mentalis muscle relaxation on oronasal breathing

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ABSTRACT

Purpose: to investigate the existence of changes in the electromyographic patterns of the mentalis and inferior orbicularis oris muscles in oronasal breathers, submitted to massage therapy on the mentalis muscle controlled blind placebo experiment, with a sample of 19 oronasal breathers (1 man and 18 women), mean age (standard deviation) 22.3 (2.63) years, randomly divided into control and experimental groups, respectively with 7 and 12 volunteers. The experimental group alone underwent myotherapy with massages for 3 months, while electromyographic data were collected from both groups at the beginning and end of the treatment, both at rest and when swallowing water. The 5% significance level was used. **Results:** the analysis of variance revealed signs of interaction between the group and phase effects when analyzing the root mean square values of both the inferior orbicularis oris and the mentalis muscles. As expected, no signs of significant differences were found between the means of the phases in the control group. On the other hand, signs of significant difference were found in the experimental group, with reduced root mean square values in both muscles. The inferior orbicularis oris muscle, which in the pre-phase had a mean (standard deviation) of 202.10 (161.47) μV , had, in the post-phase, values of 131.49 (159.18) μV . The mentalis muscle, in its turn, had in the pre- and post-phase, respectively, a mean (standard deviation) of 199.31 (279.77) μV and 114.58 (253.56) μV .

Conclusion: given that no effect was detected in the control group, the decrease in the root mean square values of the mentalis and inferior orbicularis oris muscles in oronasal breathers was attributed to the massage therapy on the mentalis muscle.

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Biography

Bachelor's at Fonoaudiologia from Pontifical Catholic University of Sao Paulo (1989), master's at School of Dentistry from University of Campinas (2005) and PhD at Odontology from University of Campinas (2007). Has experience in Speech Therapy, focusing on Speech Therapy, acting on the following subjects as surface electromyography of the head, neck and face, mastication and other functions of the stomatognathic system