健常成人における舌回旋トレーニングが舌圧へ与える効果

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Effectiveness of Tongue Rotation Exercise Training on Tongue Pressure in Normal Adults

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Abstract

In recent years, changes in diet and lifestyle have led to the decline in oral muscle strength in not only elderly but also young people. The aim of the present study was to investigate the effect of the tongue rotation exercise training on the oral functions by using the measurement of the maximum tongue pressure in normal adults. Subjects were 32 healthy adults (mean age 24.8 ± 2.3 years old) with normal occlusion and no dysfunction of the stomatognathic system. We instructed subjects to perform the tongue rotation exercise three times daily for 3 months. While the tongue was rotated every 2 sec, the apex of the tongue was pressed against onto the gingivobuccal fold with the mouth closed. We measured the maximum tongue pressure by using the JMS Tongue Pressure Measurement System® at the point before training and at the points of 2 weeks and 1, 2, and 3 months after the beginning of training. We analyzed the changes of the maximum tongue pressure based on the sex differences and the measurement points in training by repeated two-way ANOVA and Bonferroni’s post-hoc test. The maximum tongue pressure increased with the progress of continuous training in both genders. The maximum tongue pressure was always higher in men than in women, and increased significantly at 2 weeks of training in both sexes (p<0.01). This increase continued up to 2 months. These results might suggest that the present training method was effective for the recovery of the activity of the stomatognathic system.