

Nina Pauli, Ulrika Svensson, Therese Karlsson & Caterina Finizia (2016)

Exercise intervention for the treatment of trismus in head and neck cancer – a prospective two-year follow-up study, *Acta Oncologica*, 55:6, 686-692, DOI:10.3109/0284186X.2015.1133928

Trismus is a common side effect of the treatment of head and neck cancer. The restrictions of mouth opening with or without associated pain complicates eating, speaking, oral hygiene and swallowing. Social function and contact are often effected as well. In 2016, *Acta Oncologica* published Exercise intervention for the treatment of trismus in head and neck cancer, by Pauli, Svensson, Karlsson and Finizia. This article examines the effects of a structured exercise program on improving mouth function.

The researchers used the TheraBite and the Engstrom jaw device to perform warm up and stretching exercises with up to 30 seconds, five times per day. The control group did not participate in a structured exercise program but mouth opening was measured. Trismus was defined as maximum interincisal opening less than 35 mm as measured using a ruler in sitting.

Measurements were taken at 4 weeks, 10 weeks, three months and two years after initiation of the study. The Gothenburg trismus questionnaire was used for patient self reporting of outcomes. Patients also completed exercise diaries that included information on adverse effects exercise frequency, as well as compliance with the established protocol. Health related quality of life was measured with the European Organization for Research and Treatment of Cancer Core Questionnaire and the related Head and Neck Cancer module.

The intervention group reported fewer limitations of eating, speech, muscle tension and facial pain at a statistically significant level compared to the control group. Mean improvement in mouth opening in the intervention group was 6.2 mm. The improvement demonstrates the benefits of a structured exercise program to address post radiation trismus.

Commentary

This is a small study (50 patients) that demonstrates the benefits of stretching to decrease the effects of radiation treatment on TMJ function. While the sample size was small, the significant difference in the outcome of the intervention vs control group suggests further investigation is warranted. If results can be reproduced, then including therapy for stretching or guided use of stretching devices such as those used in this research would be warranted as part of a comprehensive treatment protocol for head and neck cancer patients with trismus.

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