**Evaluation of new treatment in patients suffering from trismus following radiotherapy**

Caterina Finizia, Prof, MD, PhD  
Division of ENT Sahlgrenska University Hospital Gothenburg Sweden

**ABSTRACT**

**Objectives**  
Trismus (maximum interincisal opening ≤35 mm) impacts on activities of daily living and adversely affects patient quality of life (QoL). This study aims to investigate the effectiveness of mouth-opening tools in the rehabilitation of trismus in patients with head and neck (H&N) cancer as well as any improvement in patients’ health-related quality of life (HRQL).  

**Methods**  
Thirteen study patients suffering from trismus following radiotherapy treatment for H&N cancer were identified at Sahlgrenska University Hospital, Gothenburg, Sweden. An additional 13 patients constituted a control group. The study patients were enrolled in a mouth opening training programme in contrast to the control patients who did not receive any systematic training. All patients reported HRQL and trismus related problems via validated questionnaires including Gothenburg Trismus Questionnaire (GTQ) and EORTC C30, EORTC H&N35.

**Results**  
Twelve months after completion of radiotherapy treatment, none of the study patients demonstrated trismus, whereas 62% of patients in the control group suffered from trismus 12 months post-treatment. An additional 13 patients constituted a control group. The study patients were enrolled in a structured mouth opening training programme in contrast to the control patients who did not receive any systematic training.

Tumor localization in each group were tonsils (n=7), base of tongue (n=4) and tumor colli (n=2).

The definition of trismus as proposed by Dijkstra, i.e. maximal interincisal opening (MIO) ≤35 mm (2) was used and measured as the maximum distance between the upper and lower incisors. Measurements were done using a ruler with the patient in a supine position.

All patients reported HRQL via validated Patient Report Outcomes (PRO) questionnaires including Gothenburg Trismus Questionnaire (GTQ) (3) and the European Organisation for Research and Treatment of Cancer Quality of Life; EORTC QLQ Core 30 and the EORTC QLQ H&N35.

**CONCLUSIONS**

The study demonstrates that jaw exercise training is an effective treatment for trismus arising secondary to radiotherapy treatment of H&N tumors. In clinical practice, this training could be introduced as a treatment option for patients who develop trismus or even as a preventative measure. Although trismus is a common complication, there is currently no established treatment approach and further trials with larger study populations are required to investigate how the training protocol itself should be designed to produce maximum training benefit.

**REFERENCES**