

## Electrical Stimulation of Post-Irradiated Head and Neck SCCA

**Date and Time:** Tuesday, Sep 27, 11:36 AM to 11:44 AM

**Location:** Room 304B

**Category:** Head and Neck Surgery

### Authors

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### Abstract

**Problem Addressed:** Objective: We noted a significant improvement in complaints of dysphagia in patients with head and neck cancer who had received noninvasive neuromuscular electrical stimulation (E-stim) of their pharyngeal muscles. We wanted to determine if the improvement in dysphagia was associated with decreased complaints of xerostomia, as one of the first patients being treated with E-stim noticed a significant improvement in xerostomia.

**Methods and Measures:** Study Design: Retrospective review of dysphagia questionnaires instituted by our speech pathologists on head and neck cancer patients that had received radiotherapy and had undergone E-stim for dysphagia. Methods: Prior to the initiation of E-stim and 1 to 2 months after E-stim, patients were asked to answer a Dysphagia and Xerostomia Index questionnaire. All patients received E-stim 2-4 months after completing XRT. Patients received three E-stim treatments per week for a total of 1-2 months. Four electrodes placed along anterior neck over pharyngeal muscles. E-stim was initiated using 4 to 30mA at 80 to 100 pulse-widths.

**Results:** Results: 12 patients that received either post-operative radiation therapy or concomitant chemoradiotherapy had been treated with E-stim. All 12 patients noticed a significant improvement in dysphagia. 8/12 patients noticed a definite increase in saliva production with symptoms of less intake of water with meals, sleeping longer hours at night, and increased moistness of lips.

**Conclusions:** Conclusions: E-stim therapy appears to be an effective and approved treatment for dysphagia. Our study shows that it may also be an alternative treatment for xerostomia in the post-irradiated head and neck cancer patients.

**Clinical Significance of Study:** To determine if E-stim will benefit the post-irradiated patient with swallowing and xerostomia.

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