Office-Based EMG-Guided Botox Injection for Dysphagia Patient in ENT Clinic

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Objective

The objective of this study was to evaluate changes in swallow safety and dietary status after the office-based EMG-guided botox injection for dysphagia patients.

Methods

Ten Patients who had severe dysphagia after maximum rehabilitation were admitted to the study (BOT cancer ; n=2, Hypoparynx cancer ; n=2, Carotid body tumor ; n=2, (B) RPLND ; n=1, Lung cancer with cranial nerve palsy ; n=1, Nasopharynx cancer with cranial nerve palsy ; n=1, Idiopathic; n=1). All patients showed grade 2 residue and aspiration after swallow. All patients were treated in the office ; none had previous esophageal dilatation. The upper border of the cricoid cartilage was identified using standard electromyogram procedures and 30−50 U of botulinum toxin (Botox A) were injected. Outcomes were assessed using the penetration-aspiration scale, patients' short-term and long-term subjective impressions of their ability to swallow, and change in dietary status.

Results

All patients underwent an instrumental evaluation of swallowing function at approximately 1 & 3 months after treatment to corroborate the self-reported changes in swallowing. Of the 10 patients, 9 showed an overall improvement in their ability to take an oral diet safely as evidenced by the penetration-aspiration scale. Of the 10 patients who were on a non-oral or nearly non-oral diet, 9 resumed a oral diet. The remaining 1 was on an oral diet supplemented by percutaneous endoscopic gastrostomy feeding.

Conclusion

Office-based EMG-guided botox injection should be considered when there is failure of the cricopharyngeus muscle to relax after the swallow, significant residue in the cricopharyngeal region, and a risk for penetration and aspiration.