

Adjunctive Neuromuscular Electrical Stimulation for Treatment-Refractory Dysphagia

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Objectives: Neuromuscular electrical stimulation (NMES) has been proposed as an adjunctive modality for the treatment of swallowing disorders. We present data from a prospective case series to define and measure effects of a systematic therapy for chronic pharyngeal dysphagia using adjunctive NMES.

Methods: Six adult patients with pharyngeal dysphagia received 15 sessions of a standardized protocol of swallowing exercises with adjunctive NMES. The patients completed clinical and instrumental baseline, post-treatment, and 6-month follow-up evaluations. Outcome measures included the proportion of patients who improved in clinical swallowing ability, functional oral intake, and change in body weight; patient perception of swallowing ability; and changes in kinematic aspects of swallowing.

Results: Significant change was demonstrated for clinical swallowing ability (p,.042), functional oral intake (p,.02), weight gain (p,.026), and patient perception of swallowing ability (p,.043). Hyoid and laryngeal elevation during swallowing demonstrated bolus-specific patterns of change. No patient experienced a treatment-related or swallowing-related complication. Patients (4 of 5) who were followed out to 6 months after treatment maintained functional gains.

Conclusions: A systematic therapy for chronic pharyngeal dysphagia using adjunctive NMES produced improvement in clinical swallowing ability and functional oral intake without significant weight loss or complications.

Key Words: case series, dysphagia, swallowing, treatment.