Critical Review: Is Neuromuscular Electrical Stimulation (NMES) a beneficial supplement to existing dysphagia interventions for post-stroke patients?

Lyndsay Desimone and Julia Lovis M.Cl.Sc (SLP) Candidates University of Western Ontario: School of Communication Sciences and Disorders

Neuromuscular electrical stimulation (NMES) is well-informed in other rehabilitative practices; however, the use of NMES in the field of speech-language pathology remains controversial. This critical review examined the use of NMES as a beneficial supplement to existing dysphagia interventions for post-stroke patients. Studies analyzed included four randomized clinical trials, one case series and one retrospective case study. Inclusion of NMES alongside traditional dysphagia therapy was observed to increase swallowing safety and oral intake across the majority of studies. However, a lack of both consistency in outcome measures and in the standardization of procedures, limited the generalizability of findings to clinical practice. Overall, NMES, as a supplement to existing dysphagia therapy, does not appear to offer a clear benefit to post-stroke patients.

Introduction

Dysphagia, or the clinical manifestation of a swallowing disorder, following acute stroke has a reported incidence between 37% using bedside screening assessments and 78% using instrumental evaluations (Martino et al., 2005). Those who suffer from dysphagia post-stroke experience varying degrees of severity. Levels of

Methods

<u>Search Strategy</u> Online databases (Google Scholar, Western Libraries, videofluoroscopic swallowing study (VFSS) at baseline (10 days post-stroke) and at

Discussion

Across all studies, the value of NMES as a supplement to existing dysphagia interventions for post-stroke patients was investigated. Taken together, the results of the six articles reviewed provided