



NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE: Head and neck positions may affect the level of oropharyngeal dysphagia but their effect, particularly, may depend on the laterality of impairment and this needs to be assessed for individual cases. Chin-up positions may increase level of dysphagia in some patient groups.

Clinical Question [patient/problem, intervention, (comparison), outcome]: Does chin tuck eliminate aspiration in patients with (acquired neurological) dysphagia, characterised by a delayed swallow?

Search Terms: Complete

Search Systems: Complete

Citation: Ertekin, C, Keskin, A., Kiylioglu, N., Kiralzi, Y., Yagiz On, A., Tarlaci, S. and Aydogdu, I. (2001). The effect of Head and Neck Positions on Oropharyngeal Swallowing: A Clinical and Electrophysiologic Study. *Archives of Physical and Medical Rehabilitation*. 82: 1255-1260

Design: Unblinded, heterogenous sample, not age or sex matched. Did not fit a classical design model. Broadly categorised into "Experimental" group of in-patients with dysphagia (did not describe how dysphagia was identified or prevalence of silent aspiration). "Control" group of volunteers without dysphagia (including authors). It would be impossible to replicate this study based upon the description provided by the authors. Design of the study did not also match the research question. Poorly researched measurement of dysphagia (dysphagia limit).

Participants: Control Gp: 24 participants without complaint of dysphagia.

Group 1: 9 patients with whom dysphagia was attributed to a unilateral lower cranial lesion. Group 2: 42 dysphagia patients who had no evidence of laterality in pharyngolaryngeal function. These were then divided into subgroups: all the patients with bilateral symptoms and all patients able to perform all head and neck movement systematically.

Experimental Group: : All experimental groups were asked to perform the same four head positions using electromyography to measure for dysphagia limit (piecemeal deglutition at or below 20ml water) at 1,3,5,10,15,20ml. Not all participants could complete the required head positions

Control Group: Performed the above task also. The norms for "dysphagia limit" were based upon results from previous studies using a normal population sample.

Results: Poor validity of results directly related to poor design and poor research question. Broadly the control group showed no evidence of dysphagia except with chin-up posture. In Group 1 (unilateral impairment) dysphagia improved in 67% with head rotation to the paretic side. In Group 2 (bilateral impairment) dysphagia improved in 50% with the chin tuck and 55% worsened with the chin up.

Comments on Design: A lot of uncertainty of what the aims of the authors were and how this correlated with the results. Unreliable results secondary to poor design. Absence of adequate literature review and inconsistent use of terminology. Questionable inter-rater reliability (author participated in study). Participant recruitment poorly defined.

Level of Evidence (NH&MRC): Level 4

Appraised By: Adult S & L and Dysphagia

Date: September 2002