NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE: Chin tuck has the potential to increase risk of aspiration in individuals with weak pharyngeal constriction. It is important to analyse @ patients specific swallowing impairment before deciding which strategy is the most effective. The study also showed that techniques are performed differently by different people, supporting the use of MBS to examine effectiveness of techniques as used by individuals.

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

Search Terms: Complete

Search Systems: Complete

Citation: Bulow, M., Olsson, R., Ekberg, O. (1999). Videomanometric analysis of supraglottic swallow, effortful swallow, and chin tuck in healthy volunteers. Dysphagia. 14(2). 67-72.

Design: AB Pre experimental Control. Subjects acted as their own control for experimental conditions.

Participants: 8 healthy volunteers were recruited (4M/4F). Age range 28-64 with M=41yr. Criteria for inclusion or recruitment specified.

Experimental Group: All participants were required to do 3 swallows of each of the following conditions: Normal swallow/Chin tuck/Effortful swallow/Supraglottic swallow with a 10ml liquid bolus. Instruction was provided for 10 min a ½ hr before procedure. Multiple measures were taken and swallow was assessed using MBS.

Control Group: NA

Results: Techniques were found to be performed differently by all participants and techniques operated differently as a result. There was a tendency for longer duration of PES relaxation (Pharyngoesophageal sphincter) with the supraglottic and effortful swallow and there was also reduced movement of the hyoid and reduced laryngeal elevation due to increased ms tension. With the chin tuck a reduction in pharyngeal contraction P was observed. It was hypothesised that this could result in increasing swallow impairment if this was the nature of the underlying dysphagia – especially with thick bolus consistencies.

Comments on Design:

Level of Evidence (NH&MRC): Level 3

Appraised By: Adult Sp/Lang &Dysphagia Gp

Date: October 2002

Form based on Worrall & Bennett, Evidence based Practice: Barriers & Facilitators for Speech-Language Pathologists, *Journal of Medical Speech-Language Pathology* 2:9, xi – xvi