NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE: Chin down posture may eliminate aspiration in patients with valleculae pooling but not pyriform pooling in patients with acquire neurological dysphagia. Appropriateness of patient population undefined – variables include age. Effectiveness of chin tuck determined by MBS only.

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

Search Terms: Complete

Search Systems: Complete

Citation: Shanahan, K., Logemann, J.A., Rademaker, A.W., Pauloski, B.R., and Kahrilas, P.J. (1993). Chin – Down Posture Effect on Aspiration in Dysphagic Patients. *Archives of Physical Medicine and Rehabilitation. 74. 736-739.*

Design: Did not fit a classical design model.
More of an A-B design than a case controlled design (case – chin down and aspirate and control = chin down with no aspiration)

Participants: N=30 aspirators who demonstrated aspiration due to a delayed pharyngeal swallow during MBS with chin in neutral upright position on liquid bolus. Dysphagia of acquired neurological origin

Experimental Group: Aspirators allocated to groups based on the following:
Group 1: 15 aspirators, aspiration eliminated with chin tuck.
Group 2: 15 aspirators, aspiration not eliminated with chin tuck

Control Group: NA.

Results: Epiglottic angle is greater in aspirators.
Group 2 was significantly younger -? Significance of this. Patients who aspirated when using the chin tuck aspirated material from the pyriform fossa more often than from the valleculae sinus.

Comments on Design: Poorly designed. All agreed that the implications of the results were that the effectiveness of this position couldn't be identified unless done under MBS conditions. Study highlighted that we need to be a bit more discerning in our application of swallowing strategies. Study needs to be replicated and case and age matched in a RCT.

Level of Evidence (NH&MRC): Level3-4 (Dependent on design model which was poorly defined)

Appraised By: Adult Speech and Language/Dysphagia

Date: September 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