Critical Review: The Effects of Cervical Bracing on Swallowing

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addition, using the 8-Point Penetration-Aspiration Scale would have been useful to universally qualify the existence and extent of penetration and aspiration. Videofluoroscopy was used to view the swallow. This is judged to be reliable and valid since videofluoroscopy is used most frequently in assessing oropharyngeal swallows (Logemann, 1998). There was no discussion of the reliability or validity of the measurement tools used throughout the study.

Statistical Analysis

To measure the significance of the results, the authors used a Wilcoxon signed rank test on each variable. The reason for using a non-parametric test instead of a parametric test was not discussed, although one could assume it was due to the small sample size.

Level of Evidence

with dysphagia and with which the individual presented (e.g., coughing, muffled voice, etc.), thereby helping to validate this diagnosis. The otolaryngologist's examination further increases the validity of these findings, as s/he provided expert information.

Measurements

Observing the subject's swallow under videofluoroscopy upon removal of the cervical collar contributes to the reliability and validity of the conclusion that the subject had a normal swallow. Videofluoroscopy is not a standardized tool, but it is used most frequently in assessing oropharyngeal swallows (Logemann, 1998). One could still question the reliability of the results since it is unknown whether an expert conducted the swallow evaluation.

Statistical Analysis

The results of this study were descriptive, and no statistical analysis was conducted, which was appropriate.

Level of Evidence

A case study can usually provide at least a low level of evidence. However, the lack of procedural data provided in this case study leads to the conclusion that the evidence from this study that cervical bracing can effect swallowing in adults is very weak.

Other

The following studies have been completed and are informing to this topic; however, the complete papers are unavailable, and so cannot be critiqued adequately.

puree, diced, mixed consistencies, etc.), and

5) Evaluate the effects cervical bracing can have on those who are already at risk of developing dysphagia (e.g., cervical spine surgery, spinal cord injury, traumatic brain injury)

Conclusions

Based on this critical review, the literature provides preliminary evidence suggesting that cervical orthoses can change the swallowing function in individuals who have no known risk of developing dysphagia. Further research should provide more information on the effects that cervical bracing can have on the swallowing function and mechanism.

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