Early Identification of Dysphagia in Moderate to Late Preterm Neonates

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Abstract

Purpose: A clinical feeding assessment instrument to assist with early identification of oropharyngeal dysphagia (OPD) in neonates was developed.

Methods: The validity and reliability of the Neonatal Feeding Assessment Scale (NFAS) in comparison to the modified barium swallow study (MBSS) as gold standard were investigated. A within-subject design was implemented. A group of 48 late premature neonates (mean gestational age 35.5 weeks) were sampled in the neonatal intensive care unit. The NFAS consists of six subsections, including physiological stability, infant state, stress cues, screening of muscle tone and control, oral peripheral examination and feeding/swallowing assessment.

Results: Of those participants identified with OPD on the NFAS, 93% (14/15) received confirmatory diagnosis of OPD on MBSS. The NFAS presented with high sensitivity (78.6%) and specificity (88.2%) scores. The positive predictive value was 78.6%. Subsequently the accuracy of the NFAS to identify the presence of OPD accurately was 85.4% when compared to MBSS. Inter-rater reliability was determined on 35% of the sample. The inter-rater agreement on overall instrument outcome was substantial beyond chance.

Clinical implications: The NFAS may be of use to clinicians to support the early identification of OPD in this population, especially in resource constrained settings working without access to MBSS and to reach underserved neonates. Further research to enhance the validity of the NFAS amongst different infant population groups can be considered as well as the development of a mobile health application to increase access to the NFAS internationally.