

## Cervical Proprioception and Dysphagia in Parkinson's Disease: The Importance of Disease Stage

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Dear Editor,

The relationship between cervical proprioception and dysphagia in Parkinson's disease remains insufficiently understood. In this context, the study by Ünlüer et al.<sup>1</sup> provides valuable clinical observations by highlighting the potential role of cervical proprioceptive input in swallowing, an area that remains relatively underexplored in Parkinson's disease (PD).

The reported association between dysphagia and sialorrhea is consistent with previous studies showing that these symptoms frequently co-occur and may reflect shared oropharyngeal dysfunction in PD.<sup>2</sup> In contrast, the absence of an association with cervical proprioception warrants careful interpretation in the context of disease stage and methodological considerations.

A key factor is that the study population predominantly consisted of patients with early-stage PD (median Hoehn and Yahr stage  $\approx 1.5$ ). Proprioceptive deficits and broader impairments in sensory integration are known to become more pronounced as the disease progresses.<sup>3</sup> Therefore, the lack of association observed in this cohort may be partly explained by relatively preserved proprioceptive function in early-stage disease rather than by the absence of a true relationship. This interpretation may be further supported by the reported cervical joint position error values. Previous studies have shown that these values are generally low in healthy individuals and tend to increase with age.<sup>4</sup> In this context, the values reported in the present study appear relatively close to those described in healthy populations, although this comparison remains indirect and hypothesis-generating in the absence of a control group. These findings may suggest that clinically significant proprioceptive impairment was limited in this cohort.

Another important consideration concerns the assessment of dysphagia. Although the EAT-10 is a valid and reliable screening tool, it is based on subjective reporting.<sup>5</sup> In early PD, swallowing impairment may remain subtle or subclinical and may not be fully captured by patient-reported measures. Objective assessments, such as videofluoroscopic or endoscopic evaluations, may provide more sensitive detection and could clarify whether cervical proprioception contributes to swallowing dysfunction in selected patient groups.

Furthermore, dysphagia in PD should be viewed as a multifactorial condition involving motor dysfunction, sensory alterations, cognitive factors, and treatment-related effects. Analyses based solely on correlations may not fully reflect this complexity. Multivariate approaches and subgroup analyses based on disease stage may provide more comprehensive insights.



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Finally, the potential contribution of cervical proprioception may be time-dependent. Longitudinal studies are needed to determine whether its role becomes more evident with disease progression. This issue may also have practical implications for rehabilitation strategies, particularly in the later stages of PD.

In conclusion, this study addresses an important clinical and pathophysiological question. The findings may suggest that central motor mechanisms contribute more prominently to dysphagia in early PD, whereas cervical proprioceptive impairment may remain relatively limited at this stage of the disease. Studies including larger cohorts, objective assessment methods, and comprehensive analytical approaches will provide a better understanding of this relationship.

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## REFERENCES

1. Ünlüer NÖ, Sarı YA, Hangün SF, Birbir B, Yıldız OŞ, Boynueğri SU, et al. Relationships Between Swallowing Function, Sialorrhea, and Cervical Proprioception in Parkinson's Disease. *J Clin Pract Res* 2026;48(1):62-8. [\[CrossRef\]](#)
2. Perez-Lloret S, Nègre-Pagès L, Ojero-Senard A, Damier P, Destée A, Tison F, et al.; COPARK Study Group. Oro-buccal symptoms (dysphagia, dysarthria, and sialorrhea) in patients with Parkinson's disease: preliminary analysis from the French COPARK cohort. *Eur J Neurol* 2012;19(1):28-37. [\[CrossRef\]](#)
3. Konczak J, Corcos DM, Horak F, Poizner H, Shapiro M, Tuite P, et al. Proprioception and motor control in Parkinson's disease. *J Mot Behav* 2009;41(6):543-52. [\[CrossRef\]](#)
4. Alahmari KA, Reddy RS, Silvian PS, Ahmad I, Kakaraparthi VN, Alam MM. Association of age on cervical joint position error. *J Adv Res* 2017;8(3):201-7. [\[CrossRef\]](#)
5. Demir N, Serel Arslan S, İnal Ö, Karaduman AA. Reliability and Validity of the Turkish Eating Assessment Tool (T-EAT-10). *Dysphagia* 2016;31(5):644-9. [\[CrossRef\]](#)