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Letter to Editor

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Letter Regarding the Article Entitled: 'Normal Pressure Hydrocephalus Overshadowed by Traumatic and Degenerative Spinal Diseases: A New Assessment Proposal'

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Dear Editor,

We have carefully read the article by Demirci et al., and we are highly intrigued by their description of a novel diagnostic scoring system focusing on minimizing misdiagnosis and treatment of individuals with normal pressure hydrocephalus (NPH) and walking disorders (1). The significance of addressing diagnostic errors in NPH patients cannot be overstated, and we concur with the authors on the potential of incorporating an ancillary diagnostic method or scoring system to significantly enhance clinical decision-making. Nonetheless, we would like to offer some comments to further enhance the comprehension of the report.

The researchers conducted a retrospective analysis of data from 29 patients diagnosed with NPH, and intriguingly, they discovered that 11 of these patients had previously received different diagnoses at other medical centers (1). Notably, eight of these misdiagnosed patients had been labeled with degenerative spinal diseases. These alarmingly high rates of misdiagnosis underscore the critical importance of timely and accurate identification of NPH in affected individuals. In their study, the authors propose the Ste-P formula, which incorporates specific questions aimed at improving the differential diagnosis between spinal stenosis, NPH, and PD. However, it would be beneficial to include additional data justifying the inclusion of these questions. The authors inquire about the presence of cardinal symptoms associated with NPH, such as memory impairment, urinary incontinence, and gait apraxia. Nevertheless, it remains unclear whether there is reliable evidence supporting the inclusion of inquiries about dizziness or forward lean as supportive indicators for NPH diagnosis. Dizziness is not typically associated with NPH, and forward lean is suggestive of Parkinsonian syndromes other than NPH (2). Furthermore, a positive Romberg test may be observed in various neurological conditions unrelated to spinal stenosis, including polyneuropathy, subacute combined degeneration of the spinal cord, and myelitis, all of which can lead to gait disturbances in the elderly (3). Additionally, the authors assert that a score approaching zero should raise suspicion of PD. However, it is crucial to consider that numerous other factors can contribute to gait disturbances in these patients, such as vascular parkinsonism, stroke, Parkinson-plus syndromes, and so on. For instance, according to the authors' considerations, the clinicians should exclude the diagnosis of PD in individuals presenting with a walking disorder, urinary incontinence, and positive Romberg test results, which may not be a relevant consideration. They further state that, with the exception of one patient, all individuals scored positively on the Ste-P formula they developed. From our understanding, the authors include the positive results of the Ste-P formula for both male and female groups and note that only one patient had a total score of 0. However, it would be valuable to know if the authors also applied this formula to a control group to determine its diagnostic accuracy. The authors mention that as the time between symptom onset and diagnosis increased, the diagnostic score tended to approach zero, making diagnosis more challenging. Nevertheless, they do not provide clear data to substantiate these interpretations, which may render these comments speculative. Alternatively, formulating hypotheses based on subjective observations from a limited number of cases may lead to misleading conclusions. Therefore, it would be worthwhile for the authors to explore the diagnostic accuracy of their proposed approach by applying it to a control group.

In summary, we find this report highlighting the diagnostic complexities associated with NPH to be noteworthy. We concur with the authors' assertion that there are numerous

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other conditions that can mimic NPH, and recent studies have also emphasized the presence of dual pathologies in conjunction with NPH, such as comorbid PD, progressive supranuclear palsy, and Lewy body dementia, which further complicates the diagnostic process. However, we believe that in order to overcome these challenges, a comprehensive neurological examination conducted by an experienced neurologist is essential. Additionally, the results obtained from neuroimaging techniques and the response to a tap test are of critical importance. Relying solely on a scoring system that focuses on specific clinical clues may prove to be challenging. The aforementioned limitations may potentially hinder the diagnostic process.

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AUTHORSHIP CONTRIBUTION

Study conception and design: HO, SC
Data collection: HO, SC
Analysis and interpretation of results: HO, SC
Draft manuscript preparation: HO, SC
Critical revision of the article: HO, SC
Other (study supervision, fundings, materials, etc...): HO, SC
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REFERENCES

1. Demirci H, Kuzucu P, Eroglu E, Serin A, Senol O, Buke Sahin M, Keskil S, Ozisik P: Normal pressure hydrocephalus overshadowed by traumatic and degenerative spinal diseases: A new assessment proposal. Turk Neurosurg, 2022 (Online ahead of print)
2. Mikami K, Shiraishi M, Kawasaki T, Kamo T: Forward flexion of trunk in Parkinson's disease patients is affected by subjective vertical position. PLoS One 12(7):e0181210, 2017
3. Pirker W, Katzenschlager R: Gait disorders in adults and the elderly: A clinical guide. Wien Klin Wochenschr 129(3-4):81-95, 2017