

Letters to the Editor



Comments on “The Value of the Optic Nerve Sheath Diameter (ONSD) in Predicting Postdural Puncture Headache (PDPH): A Prospective Observational Study”

TO THE EDITOR:

We have read with keen interest the article by Peng Q et al (1) on the value of Optic Nerve Sheath Diameter (ONSD) measurement in predicting post-dural puncture headache.

While we appreciate the authors' contribution, we would like to provide additional insights.

The authors used an ultrasound B-scan technique with a 13-6 MHz ultrasound frequency probe to measure ONSD, but not only did they place the probe with gel over the upper eyelid, but they also placed a film over the lids trying to avoid discomfort to the patient.

This approach may lead to sound attenuation, which can compromise the reliability of the results. To avoid this problem, an examination with open eye lids utilizing some anesthetic drops and methylcellulose instead of the usual gel, has been suggested (2-4).

Additionally, assessing the eye's primary position with closed eyelids can be challenging (3,5). Measuring the ONSD in the primary position is crucial, as altering the eye's position may affect the cerebrospinal fluid surrounding the optic nerve, resulting in inaccurate ONSD measurements (6,7).

Moreover, we would like to suggest not measuring the ONSD with the sound beam parallel to the optic nerve axis, because in this way the sound will scatter making it difficult to distinguish the ONSD borders. When a measurement of a structure is needed, the best way is to have the sound beam perpendicular and not parallel to the borders to be measured.

Unfortunately, this is not the only problem because even if B scan has been used in several studies, it is very sensitive in diagnosing the presence of optic disc dru-

sen, but can be affected by various artifacts, including the blooming effect, which can cause erroneous measurements when differences of less than 0.5 mm are significant, as in the differential diagnosis of optic nerve lesions (8-11).

The blooming effect may also account for variations in the thresholds reported in different studies.

Therefore, we recommend the use of the standardized A-scan technique with open eyelids and the eye in the primary position to obtain more reliable ONSD measurements (12-14).

While the study by Peng Q et al (1) is intriguing, the use of the B-scan technique may have compromised the accuracy of their results.

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