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RESPONSE TO DR. VITIELLO ET AL. LETTER TO THE EDITOR



The Reply:

We thank Dr. Vitiello et al. for their commentary on the merits of a detailed, standardized ocular sonographic examination as advocated by Ossoinig (1).

We fully concur on the benefits of a “standardized” approach, especially in the evaluation of optic nerve sheath diameter, optic disc height, and other ocular pathologies, especially if small. This is especially useful for stable patients or for research purposes. The benefits of using the standardized approach are appreciated. However, this is not always possible in the emergency department (ED) setting.

In the pediatric population, especially for younger children, the need for patients to follow instructions (for example, to look straight ahead) may be difficult. This would be especially so in the ED setting when young pa-

tients are in distress or in pain or are unable to comply (e.g., during seizures) (2,3).

In general, the clinical role of a point-of-care ultrasound (POCUS) may be slightly different from the aims and objectives of a more formal sonography examination, and it tends to be more ED centric. Point-of-care tests are often used for ED rapid screening and evaluation to help in the evaluation of potentially time-critical conditions, to assist in risk stratification of the patient, and to determine the need for further evaluation and investigations, including imaging. Having stated that, it is also true that in many instances, diagnostic findings when performing POCUS can be definitive.

In our case report, we performed transorbital POCUS as part of our clinical evaluation while awaiting the formal eye review. We hoped to highlight the interesting transorbital POCUS findings of our pediatric patients with optic neuritis: 1) the markedly different optic nerve sheath diameter between eyes; 2) the presence of a unilateral raised optic nerve disc height (papilledema) of the affected eye; and most interestingly, 3) an irregularly enlarged optic nerve sheath (with good correlations with the findings on magnetic resonance imaging).

We employed the approach advocated by the American College of Emergency Physicians (4,5), but made a slight modification by using a “no touch” technique to avoid applying pressure on the eye (using copious gel as an acoustic standoff). We believe that the transorbital POCUS can be performed by both experts and nonexperts, with the appropriate training.

Perhaps further studies can be done to evaluate the clinical merits of using the “standardized” ocular ultrasound approach proposed by Ossoinig specifically in the ED setting.

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