



## Re: Comments on “Neuromuscular Ultrasonography of Cranial Nerves”: The Authors Respond

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Dear Editor,

We thank Tenuta et al.<sup>1</sup> for their interest in our review article, and we appreciate their input and clarifications. We generally agree with the points they have raised. We agree there is no strong evidence for a possible thermal or mechanical effect on the eye using B-mode scans and that the risk is associated more with color Doppler scans. We clarified this when we stated in the review article that color flow and power Doppler imaging are associated with significant increases in the insonation energy during ultrasonography, which results in the eye being vulnerable to the heat generated by the sound waves in these two modes. We stressed this point because safety is critical and novices might want to add the color flow mode indiscriminately when imaging the eye. The Food and Drug Administration recommends that health-care providers consider ways to minimize exposure while maintaining the diagnostic quality when using ultrasound. As with all other imaging modalities, the principle of as low as reasonably achievable (ALARA) should be practiced by health-care providers.

Using a closed-eye technique in scanning is encouraged in order to avoid direct contact with the eye structures and cornea, which may cause abrasion. It is also the most common technique described in the literature.<sup>2-5</sup> We agree that maintaining the gaze at the midline is near impossible. The 30° test is of interest, and we thank Tenuta et al.<sup>1</sup> for describing the technique and the value of the test.

### Conflicts of Interest

The authors have no financial conflicts of interest.

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