In reply

We thank Dr De Bernardo and colleagues for their thoughtful letter. We agree that the sonographic technique used in our study has several important limitations. Nevertheless, it is currently the most widely used and validated method for evaluating the optic nerve in critically ill patients.[1] As a result, clinicians involved in management of severe pre-eclampsia are familiar with B-scan optic ultrasound. This technique is also considered a little bit easier to learn and perform compared to the A-scan, especially for doctors who are not specifically trained in ophthalmologic ultrasound. Moreover, applying the probe on open eyelids can be impractical and poorly tolerated by postpartum women. Of note, none of the drawbacks discussed by Dr De Bernardo and colleagues affects the clinical implications of our results. Systematic errors may have occurred in both patient groups, those with pre-eclampsia and healthy controls alike. Therefore, significantly higher optic nerve sheath diameters in those women with preeclampsia found in our study, as well as in the study by Dubost et al.,[2] still emphasizes the importance of intensive surveillance and individualized fluid management of preeclamptic patients.

We are heartened by the interest in ocular ultrasonography in patients with pre-eclampsia. We hope that our study will lead to larger, more robust, longitudinal studies that also assess differences between various measurement techniques and in predictive values for perinatal neurological complications associated with this disease.

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0959-289X/$ - see front matter

https://doi.org/10.1016/j.ijoa.2018.12.009

Which anesthetic technique should be used for cesarean section in the case of Horner's syndrome associated with epidural analgesia in labor?

Recently, Chambers and Bhatia published a very good review of Horner's syndrome (HS) following obstetric neuraxial blockade.[1] As explained by the authors, the main mechanism of HS in pregnant patients receiving epidural analgesia is the cephalic spread of local anesthetic leading to block of the sympathetic chain from C8 to T1. These thoracic levels correspond to a potentially dangerous situation in the case of complete sensory and motor anesthesia. Consequently, many anesthesiologists who are not fully familiar with this uncommon syndrome may be concerned about maintaining epidural block and might decide to stop or to temporarily decrease the amount of local anesthetic given until the complete resolution of the HS. The authors of the review article gave different advice, reporting that in the majority of cases in which epidural analgesia was maintained the HS resolved spontaneously without complications.

In the case of an emergency cesarean section in a woman with HS related to epidural analgesia, which is a more stressful situation, the management of the epidural anesthetic was not discussed. When parturients need an emergency cesarean section while receiving epidural analgesia during labor, an epidural top-up is usually performed. Of the 63 cases of HS reported by the authors,[1] 13 subsequently underwent a cesarean section. For 10 of these 13 women, the HS was diagnosed during or after the cesarean section. Only three women had the diagnosis made before the decision to deliver by cesarean section. Among those case reports, in one woman epidural analgesia was augmented with 20 mL of local anesthetic (the initial sensory block level was T7);[2] in another epidural analgesia was converted to general anesthesia;[3] and in the last case epidural analgesia was converted to spinal anesthesia.[4]

It would be interesting to know the practices and advice of the authors with regard to epidural top-ups when an emergency cesarean section has to be performed in a parturient who has HS related to epidural labor analgesia.