RESPONSE TO LETTER TO THE EDITOR

The Authors Reply: Ocular Ultrasonography to Detect Intracranial Hypertension in Subarachnoid Hemorrhage Patients

Tommaso Zoerle^{1*} and Nino Stocchetti^{1,2}

© 2020 Springer Science+Business Media, LLC, part of Springer Nature and Neurocritical Care Society

Dear Editor,

We thank Dr. Marotta and colleagues for their comments on our recent paper [1]. In the letter they propose an A-scan technique with open eyelids to overcome some of the limitations of the B-mode scan and to improve optic nerve sheath diameter (ONSD) measurements accuracy. Unfortunately, we think that the proposed technique is not suitable for ONSD monitoring in the intensive care setting. Ocular surface disorders are frequent in sedated and/or comatose subjects and can lead to visual loss with a devastating effect on quality of life [2]. Prevention of these disorders includes maintaining the integrity of ocular surface avoiding unnecessary touches and manipulations [3]. For these reasons it seems unsafe, particularly for the repeated measurements necessary to monitor ONSD, to place the ultrasound probe on the ocular surface and to use forceps to move the eye.

Last, to describe the agreement between US-ONSD and MRI-ONSD we have used a Bland and Altman plot, not a *t* test.

Author details

¹ Neuroscience Intensive Care Unit, Department of Anesthesia and Critical Care, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy.
² Department of Pathophysiology and Transplantation, University of Milan, Milan, Italy.

Conflict of interest

The authors declare that they have no conflict of interest.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Published online: 27 May 2020

References

1. Zoerle T, Caccioppola A, D'Angelo E, Carbonara M, Conte G, Avignone S, Zanier ER, Birg T, Ortolano F, Triulzi F, Stocchetti N. Optic nerve sheath diameter is not related to intracranial pressure in subarachnoid hemorrhage patients. *Neurocrit Care*. 2020. <https://doi.org/10.1007/s12028-020-00970-y>.
2. Grixti A, Sadri M, Edgar J, Datta AV. Common ocular surface disorders in patients in intensive care units. *Ocul Surf*. 2012;10(1):26–42. <https://doi.org/10.1016/j.jtos.2011.10.001>.
3. Dua HS. Bacterial keratitis in the critically ill and comatose patient. *Lancet*. 1998;351(9100):387–8.

*Correspondence: tommaso.zoerle@policlinico.mi.it

¹ Neuroscience Intensive Care Unit, Department of Anesthesia and Critical Care, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy

Full list of author information is available at the end of the article

This comment refers to the article available at <https://doi.org/10.1007/s12028-020-00970-y>.

This reply refers to the article available at <https://doi.org/10.1007/s12028-020-00999-z>.