



In reply: Management of blood pressure alters cerebral oxygen saturation values in the beach chair position

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To the Editor,

We want to thank Dr. Kinoshita for comments on our paper.¹

The lowest acceptable blood pressure during surgery is a subject of discussion and significant controversy. A mean arterial pressure of 50–150 mmHg is often suggested as the range of cerebral autoregulation and therefore a guarantee of adequate cerebral perfusion. There is enormous inter-individual variability in the lower-limit autoregulation threshold, however, which makes it difficult to apply any one lower-limit value to a broad population. The average lower limit is probably higher than 50 mmHg (perhaps 60–90 mmHg) in awake, normotensive patients.² In hypertensive patients, the lower limit of autoregulation might be shifted to the right.³

The impact of extracranial contamination on cerebral oxygenation values indeed depends on the technology employed. However, changes in jugular venous bulb oxygenation⁴ and middle cerebral artery blood velocity⁵ were reported in patients in the upright position, suggesting a large intracranial contribution to the measured value.

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The goal of our study, however, was to compare the data of healthy volunteers with the results of patients. We believe this comparison is of more clinical significance than setting reference values that will always be susceptible to technical issues, independent of the device used.

Conflicts of interest None declared.

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