



## Reply to the letter

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To the Editor:

We are most grateful to Dr. Mahmut for the helpful comments on our manuscript titled “Changes in the corrected carotid flow time can predict spinal anesthesia-induced hypotension in patients undergoing cesarean delivery: an observational study” [1]. We appreciate the opportunity to address the concerns raised and provide further clarification on the methodological decisions underlying our study.

We acknowledge the suggestion regarding bilateral corrected carotid flow time measurements, which could potentially enhance the accuracy of our findings. However, we believe it is essential to elucidate the rationale behind our choice to employ unilateral carotid artery measurements in our research.

Firstly, an extensive review of existing literature revealed that previous studies on corrected carotid flow time predominantly utilized unilateral measurements [2–5]. Despite our efforts, we found limited evidence supporting the comparative analysis of measurements from both sides of the carotid artery within the context of our study objectives. Moreover, given that our study cohort comprised pregnant individuals, the likelihood of carotid artery stenosis was deemed minimal. While bilateral measurements during supine rest may seem reasonable, conducting measurements on both sides to capture changes induced by the Trendelenburg position could introduce potential lag effects, impacting the results. Furthermore, even if there were differences in flow velocity between the left and right carotid arteries, our study primarily focused on assessing the “percentage of change” in corrected carotid flow time induced by the Trendelenburg position, rather than absolute values. Therefore, any potential disparities between the left and right carotid arteries would likely have minimal impact on our study outcomes.

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We appreciate Dr. Mahmut's thoughtful critique and assure you that we carefully considered the methodological implications before finalizing our approach. Transparency and rigor are paramount in our research endeavors and we remain committed to continuously improving the quality and applicability of our work.

Once again, we thank you for facilitating this discussion and look forward to contributing further to the advancement of knowledge in obstetric anesthesia.

### Declarations

**Conflict of interest** Koichi Suehiro has received speaker fees from Edwards Lifesciences and Otsuka Pharmaceutical Factory. Other authors have no conflict of interest.

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