

## In reply: Desflurane anesthesia and cognitive function

Shunsuke Tachibana<sup>1</sup> · Tomo Hayase<sup>1</sup> · Michiaki Yamakage<sup>1</sup>

Received: 31 October 2016 / Accepted: 6 June 2017 / Published online: 17 June 2017  
© Japanese Society of Anesthesiologists 2017

To the Editor:

We thank Dr. Ding et al. [1] for the comments regarding our recent manuscript [2]. In the present study, we did not examine factors (i.e., educational background, economic status, and psychiatric disease) that are considered to have possible relations with cognitive function. These factors strongly influence cognitive function at 7 days after surgery, but it is not clear whether these factors also influence cognitive function at 24 h after surgery. We should confirm whether the mini mental state examination (MMSE) score changes in a time-dependent manner and whether cognitive function is affected by patient background factors such as educational level, economic status, and psycho-emotional status. Our data are limited because we only presented data for patients who underwent elective surgery in a single center. The results for cognitive function should be interpreted carefully. We did not mention the difference between MMSE scores in the desflurane group and sevoflurane group. Our data showed

comparable MMSE scores in the two groups. Sevoflurane is also a suitable anesthetic agent for elderly patients with regard to postoperative MMSE score. However, the results for modified Aldrete score might reflect the better emergence from general anesthesia in the desflurane group. We should present further discussions about the difference between the two anesthetic agents for perioperative cognitive function.

### References

1. Ding F, Zheng L, Luo T. Desflurane anesthesia and postoperative cognitive function. *J Anesth*. 2015. doi:[10.1007/s00540-015-2002-3](https://doi.org/10.1007/s00540-015-2002-3).
2. Tachibana S, Hayase T, Osuda M, Kazuma S, Yamakage M. Recovery of postoperative cognitive function in elderly patients after a long duration of desflurane anesthesia: a pilot study. *J Anesth*. 2015;29:627–30.

---

This reply refers to the comment available at  
doi:[10.1007/s00540-015-2002-3](https://doi.org/10.1007/s00540-015-2002-3).

---

✉ Shunsuke Tachibana  
[shunsuke.tachibana@gmail.com](mailto:shunsuke.tachibana@gmail.com)

<sup>1</sup> Department of Anesthesiology, Sapporo Medical University  
School of Medicine, South 1, West 16, Chuo-ku, Sapporo,  
Hokkaido 060-8543, Japan