Author’s response to reviews

Title: 1-1-8 one-step sevoflurane wash-in scheme for low-flow anesthesia: simple, rapid, and predictable induction

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Thank you all reviewers so much for your kind and constructive comments. I have amended my manuscript according to those comments. I’ll address all the concerns raised as following:

1. Ozcan Piskin (Reviewer 2): -When was the start induction why they did not use a technique to monitor the depth of anesthesia, (etc Bispectral Index).
Response: The induction was started after 3 min of pre-oxygenation and premedication with fentanyl using propofol 2 mg·kg⁻¹. (Page 6, Line 6-7).
To monitor depth of anesthesia, Bispectral Index (BIS) is mainly used for intravenous drugs, e.g., propofol in TIVA technique (Zhang et al. Bispectral index monitoring prevent awareness during total intravenous anesthesia: a prospective, randomized, double-blinded, multi-center controlled trial. Chin Med J (Engl). 2011;124:3664-9.), while Minimum Alveolar Concentration (MAC) value from anesthetic gas monitor is used for inhalation agents, e.g., nitrous oxide, sevoflurane, desflurane. (Aranake et al. Minimum alveolar concentration: ongoing relevance and clinical utility. Anaesthesia. 2013;68:512-22.). In our institute, we only use BIS when we apply TIVA technique, e.g., in neurosurgery. The current study used MAC value to monitor depth of anesthesia. (Page 6, Line 3).

2. Renu Sinha (Reviewer 3): 1:1:8 method is good however I donot agree that it should be used in those institution where gas analyzer is not available. Also low flow anaesthesia should not be used without monitoring inspired oxygen concentration. So suggestions to use this technique without inhalational agent analyzer should be removed.
Response:
We removed “The scheme may be applied for sevoflurane LFA in the situation where an anesthetic gas analyzer is not available.” from the Conclusions. (Page 11, Line 17).

3. in the graphs figure 3: Y axis should be sevoflurane concentration figure 4: Y axis should be written as FAS/FIS value
figure 5: Y axis should be HR (beats/min) & BP (mmHg)
maximum time for achieving FAS in N2O group was 4.5 minutes and in air group was 5 minutes, so in
figure 5 include HR & BP till 5 minutes instead of 3.5 minutes
Response: Figure 3, 4, and 5 were amended according to Reviewer’s comments.

In Figure 5, the X-axis does not represent Time (min) but represents FAS (%) which the
end-point of study was 3.5%. So, HR & BP were included till FAS 3.5%. We amended the legend of
Figure 5 to “Pattern of changes in heart rate and blood pressure of group N2O and group Air at each
FAS”.