

In Reply:

We thank Naik *et al.* for their comments on and questions regarding our study.¹ They first asked whether more detailed information about the operation is necessary to identify intraoperative surgical bleeding because the degree of invasiveness of the procedure could be associated with surgical bleeding as reported by Mirza *et al.*² We agree with them. In our study, one surgical team performed all of the surgeries to ensure procedural consistency; moreover, patients who had previous spine surgery were excluded from the study. In addition, as they commented, we used the Spine Surgery Invasiveness Index to compare the consistency of the surgical procedure between the two groups and found no difference (9.0 [9.0 to 12.0] in the pressure-controlled ventilation group *vs.* 9.0 [9.0 to 10.5] in the volume-controlled ventilation group; $P = 0.824$). Therefore, the degree of invasiveness of the surgical procedure in the two groups was similar, and its effect on the results could be eliminated.

Next, they asked why intraoperative coagulation tests were not performed and no allogeneic blood products other than erythrocytes were administered despite the fact that hemostatic abnormalities known to affect intraoperative surgical bleeding, including hypofibrinogenemia during spine surgery, could exist. Such abnormalities may be associated with major spine surgery at multiple levels. In a study showing that hypofibrinogenemia was related to intraoperative surgical bleeding, the mean number of operated spine levels was at least 4.³ Moreover, that study included revision surgery. In comparison, we operated on two or three spine levels and

excluded revision surgery. Therefore, there was no need to perform an intraoperative coagulation test, and the effect of hypofibrinogenemia on surgical bleeding was limited in our study.

Competing Interests

The authors declare no competing interests.

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