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Authors' Reply

RE: How Are Thermoregulation and Ventilatory Modes Linked? Some Methodological Views

Dear Editor,

We are very pleased that our study examining the relationship between thermoregulation and mechanical ventilation methods has been read and interpreted with such interest in the academic field (1). Perioperative heat loss is often overlooked but has significant negative effects (2).

The main basis of our study is that higher PEEP levels, which have been tested in previous studies, trigger earlier peripheral vascular vasoconstriction owing to the effects on peripheral return and, thus, lead to less heat loss through less thermal distribution in the periphery (3, 4). Our hypothesis also raised the question that lower tidal volume and lower total minute ventilation may affect the temperature loss via airways. However, in the study results, peripheral vasoconstriction time and heat loss were found to be similar in both ventilation methods.

As a criticism of our study, limitations of the research can be stated as follows: no humidification type was specified, the relationship between hemodynamic values and temperature was not taken into consideration, and no patient position was specified. However, we believe that these points did not affect the results as they were adjusted to be the same in both groups, thereby providing standardization of the study.

Although it was not mentioned in the criticisms of our study, the mainstay of the study was that the PEEP level could not

trigger the peripheral vascular response adequately in this patient group. The fact that there was no difference between the two groups indicates that higher PEEP values should be used instead of the PEEP level set to 5 mmH₂O, especially in overweight patients.

The subject of thermoregulatory changes owing to mechanical ventilation mode has not yet been adequately studied. Similar studies can be conducted with different PEEP levels or through different hypotheses.

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