

## Authors's reply to "Preventing atelectasia at robotic surgery"



## Resposta dos autores para "Prevenir atelectasia em cirurgia robótica"

Dear Editor,

The letter by Yetim et al. discussed mechanical ventilation modes and parameters to prevent hypoxemia and improve lung function during robotic surgery, using Recruitment Maneuvers (RMs), positive pressure ventilation mode, and Positive End-Expiratory Pressure (PEEP).<sup>1</sup>

We agree that pressure control ventilation is an option and PEEP and RMs may be needed during robotic surgery. However, some studies have reported that PEEP and RMs may improve gas exchange during laparoscopic surgery, whereas others have shown no changes.<sup>2</sup> In both our robotic cystectomy and prostatectomy series, patients in the deep Trendelenburg position and with intra-abdominal pressure due to pneumoperitoneum tended to generate auto-PEEP as well as high inspiratory peak and plateau pressures. However, adjusting the ventilator settings to a higher breathing frequency with respect to auto-PEEP values and to a lower tidal volume using a volume-controlled ventilator mode was very helpful in obtaining normal values for peak and plateau pressures and in avoiding the generation of auto-PEEP. Although PEEP can improve gas exchange in these patients, it was not needed because of the very few instances of auto-PEEP. Additionally, no signs of low hemoglobin oxygen saturation and/or hypoxemia were observed on arterial blood gas analysis, and atelectasis was not diagnosed in any patient. However, it is possible that PEEP and RMs may

be needed even in dual-controlled ventilation modes, and they can be considered in hemodynamically stable cases.

## Conflicts of interest

The authors declare no conflicts of interest.

## References

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Menekse Oksar<sup>a,\*</sup>, Mevlana Derya Balbay<sup>b</sup>, Orhan Kanbak<sup>c</sup>

<sup>a</sup> *Mustafa Kemal University, Faculty of Medicine, Department of Anesthesiology and Reanimation, Hatay, Turkey*

<sup>b</sup> *Memorial Sisli Hospital, Istanbul, Turkey*

<sup>c</sup> *Ankara Ataturk Training and Research Hospital, Department of Anesthesiology and Reanimation, Ankara, Turkey*

\* Corresponding author.

E-mail: [m.oksar@yahoo.com](mailto:m.oksar@yahoo.com) (M. Oksar).

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