



Factors influencing abdominal compliance

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Received: 3 March 2024 / Accepted: 4 March 2024 / Published online: 11 March 2024
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Keywords Robotic surgery · Laparoscopy · Peripheral nerve block · Neuromuscular block

To the Editor:

We read with interest the recently published article speculating adding abdominal peripheral nerve block with moderate neuromuscular blockage creates sufficient surgical space in patients undergoing robot-assisted laparoscopic radical prostatectomy (RARP) compared to space created with deep neuromuscular blockage [1]. As authors indicated that laparoscopic workspace increases by positional change, deep neuromuscular blockade or peripheral or neuraxial block improves the surgical success or reduces the procedural duration [2]. They described a new technique to display the relaxation performance of the abdominal cavity by measuring the distance between the umbilicus port and peritoneum after raising the pressure of the pneumoperitoneum from 8 to 12 mmHg. The term abdominal compliance (AC) would be more convenient to discuss the effects of peripheral nerve block on abdominal cavity relaxation capacity. AC is defined as a change in abdominal volume per alteration of the intraabdominal pressure.

Nevertheless, previous laparoscopic surgery may increase AC by gradually pre-stretching of the abdominal muscles at the start. On the other hand, the change of compliance in these patients is observed less during the continuation of the surgery relative to the patients with no previous surgery [3]. Moreover, previous laparotomies that decrease the distensibility of the abdominal wall by scarring of the muscle fibers and fascial layers might give rise to loss of AC [3]. Furthermore, AC is not only related to reshaping the capacity of the

abdominal wall but also diaphragmatic stretching and pressurization capacity that would be modified in patients with chronic pulmonary lung diseases [4]. Based on the above, it may be more suitable to mention surgical and pulmonary history patients. If the cohort of the study written by Noguchi et al. has included patients with previous surgeries or chronic pulmonary lung disease, it would be more appropriate to report the number of these patients to demonstrate statistically no significant difference.

Declarations

Conflict of interest The authors declare no conflicts of interest.

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This comment refers to the article available online at <https://doi.org/10.1007/s00540-024-03309-5>.

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