



Three versus five lumbar PVB injections for herniorrhaphy

Bailong Hu¹ · Haiyan Zhou² · Xiaohua Zou¹

Received: 18 February 2019 / Accepted: 23 March 2019 / Published online: 5 April 2019
© Japanese Society of Anesthesiologists 2019

Keywords Paravertebral block · Herniorrhaphy

To the Editor:

In a randomised controlled trial by Naja et al. [1] comparing the effect of three paravertebral (PVB) injections versus five injections for elderly patients undergoing inguinal hernia repair surgery, they showed that the five PVB injection technique was more suitable as a sole anaesthetic technique for elderly patients undergoing herniorrhaphy. However, we note several aspects of this study that need to be clarified and discussed.

As was described in Table 2, the number of failed block between the two groups was analysed by the Chi squared test and the *P* value was 0.024. However, we calculated using Fisher's exact test, the *P* value was 0.059, which means differences between the two groups were not statistically significant. We find that there were more than 20% of cells with an expected value of less than 5 for the "failed block". In this case, Fisher's exact test should be used rather than the Chi squared test [2].

Moreover, the concentration of bupivacaine between the two groups was 0.5% (group III) and 0.3% (group V), respectively. To our knowledge, concentration of local anaesthetic is an important factor that may influence the effect of PVB [3]. Thus, we suggest that the concentration of bupivacaine

should be equal between the two groups. Otherwise, it is not convincing to believe that five PVB injections provided better anaesthesia when compared with three PVB injections without providing the above information.

Compliance with ethical standards

Conflict of interest None declared.

References

1. Naja Z, Kanawati S, Khatib ZE, Ziade F, Nasreddine R, Naja AS. Three versus five lumbar paravertebral injections for inguinal hernia repair in the elderly: a randomized double-blind clinical trial. *J Anesth.* 2019;33(1):50–7. <https://doi.org/10.1007/s00540-018-2582-9>.
2. Armitage P, Berry G, Matthews JN. *Statistical methods in medical research.* 4th ed. Massachusetts: Blackwell Publishing; 2002. pp. 134–7.
3. D'Ercole F, Arora H, Kumar PA. Paravertebral block for thoracic surgery. *J Cardiothorac Vasc Anesth.* 2018;32(2):915–27.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Bailong Hu and Haiyan Zhou contributed equally to the letter.

This comment refers to the article available online at <https://doi.org/10.1007/s00540-018-2582-9>.

✉ Bailong Hu
375896605@qq.com

¹ Department of Anesthesiology, The Affiliated Hospital of Guizhou Medical University, No. 28 Guiyi Street, Yunyan District, Guiyang 550004, China

² Department of Clinical Research Centre, The Affiliated Hospital of Guizhou Medical University, No. 28 Guiyi Street, Yunyan District, Guiyang 550004, China