Comment on Published Article

Assessing postoperative analgesic efficacy of a new regional block for video-assisted thoracoscopic surgery

Dear Editor,

With great interest, we read the recent article by Avci *et al*.[1] in which the serratus posterior superior intercostal plane block (SPSIPB) provided adequate postoperative analgesia for video-assisted thoracic surgery. There are certain concerns which warrant further discussion.

First, the study aimed to determine the postoperative analgesic efficacy of SPSIPB by comparing it with a control intervention. For sample size calculation, a reduction of 2 points in mean numerical rating scale (NRS) scores was considered clinically significant. Based on their pilot study with ten patients receiving SPSIPB, the authors reported the mean and standard deviation of NRS score at rest in the postanaesthesia recovery room (i.e. the primary outcome of this study). However, it was unclear if their pilot study included a control group without SPSIPB. Only providing the mean and standard deviation of the primary outcome in the intervention group and the expected clinically meaningful differences of primary outcome is insufficient for sample size calculation of a randomised controlled trial.[2]

Second, both paracetamol and dexketoprofen were intravenously (IV) administered for postoperative analgesia before the end of surgery, but they were not continued as scheduled dosing postoperatively. It must be noted that non-standard application or insufficient doses of non-opioid analgesics in the comparator groups have been one of the main concerns for inadequate design of the randomised controlled trials that evaluate local analgesic techniques.[3] Moreover, in this study, an opioid-dominated analgesic strategy, that is, patient-controlled analgesia with IV tramadol, was used as the primary postoperative pain control technique, and IV paracetamol was administered as a rescue analgesic. These are not in agreement with the requirements of a multimodal opioid-sparing postoperative analgesic strategy recommended by the current enhanced recovery after surgery protocols for thoracic surgery, in which opioids should be given as rescue analgesia only when non-opioid analgesics are ineffective or contraindicated.[4] In the patients undergoing video-assisted thoracic surgery, Klaibert *et al*.[5] demonstrated that with a standard multimodal opioid-sparing analgesic strategy, including local anaesthetic wound infiltration, scheduled acetaminophen and patient-controlled analgesia as required, additional use of a local block did not provide meaningful benefits in terms of pain control and opioid consumption. Thus, we argue that different results regarding the postoperative analgesic efficacy of SPSIPB would have been obtained if a standard multimodal opioid-sparing analgesia strategy had been included in this study.

Finally, the target of postoperative analgesia in this study was to keep an NRS score of 4 or less. The mean NRS scores of rest and dynamic pain levels achieved this target at all times during 24 h postoperatively in the patients receiving SPSIPB. This could not be achieved at most time points postoperatively in the control patients. Given that a low effective control group would bias the primary and secondary outcomes in favour of SPSIPB intervention, we are very interested in knowing why this target of postoperative analgesia was not achieved in the control patients.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Avci O, Gundogdu O, Balci F, Tekcan MN, Ozbey M. Efficacy of serratus posterior superior intercostal plane block (SPSIPB)

on post-operative pain and total analgesic consumption in patients undergoing video-assisted thoracoscopic surgery (VATS): A double-blinded randomised controlled trial. Indian J Anaesth 2023;67:1116-22.
2. Wolfenden L, Foy R, Presseau J, Grimshaw JM, Ivers NM, Powell BJ, *et al*. Designing and undertaking randomised implementation trials: Guide for researchers. BMJ 2021;372:m3721.
3. Joshi GP, Stewart J, Kehlet H. Critical appraisal of randomised trials assessing regional analgesic interventions for knee arthroplasty: Implications for postoperative pain guidelines development. Br J Anaesth 2022;129:142-4.
4. Semenkovich TR, Hudson JL, Subramanian M, Kozower BD. Enhanced recovery after surgery (ERAS) in thoracic surgery. Semin Thorac Cardiovasc Surg 2018;30:342-9.
5. Klaibert B, Lohser J, Tang R, Jew M, McGuire A, Wilson J. Efficacy of ultrasound-guided single-injection erector spinae plane block for thoracoscopic wedge resection: A prospective randomized control trial. Reg Anesth Pain Med 2022;47:749-54.

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