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Letter to the Editor

Comparing analgesic efficacy of different local blocks after laparoscopic cholecystectomy: author's reply

Ho-Jin Lee

Department of Anesthesiology and Pain Medicine, Seoul National University Hospital, Seoul, Korea

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Correspondence: Ho-Jin Lee
Department of Anesthesiology and Pain Medicine, Seoul National University Hospital, 101 Daehak-ro, Jongno-gu, Seoul 03080, Korea
Tel: +82-2-2072-0039, Fax: +82-2-747-8363, E-mail: hjpainfree@snu.ac.kr

TO THE EDITOR

We express our gratitude to the authors for their valuable comments on our recent study comparing the analgesic effects of modified thoracoabdominal nerve block through the perichondral approach (M-TAPA) and subcostal transversus abdominis plane block (TAPB) [1]. They have raised several questions concerning the study design and results.

First, they addressed concerns regarding our analgesic protocol, which did not involve the routine use of non-opioid analgesics such as acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs) after surgery. As the authors rightfully mentioned, non-opioid analgesics like acetaminophen and NSAIDs are widely used for postoperative pain management. We administered these non-opioid analgesics intraoperatively, and, considering the short surgery duration, we believe that their effects sufficiently covered postoperative pain during the fasting period (approximately 6 hours). Additionally, for laparoscopic cholecystectomy, we followed our institution's standard analgesic protocol by administering 40 mg of intravenous nefopam during the first 8 hours postoperatively. Notably, we recently reported on the opioid-sparing and analgesic effects of intravenous nefopam during thoracic surgery [2]. Moreover, 6 hours post-surgery, when patients' pain had significantly decreased and they resumed oral intake, we administered an oral tramadol/acetaminophen combination tablet as a rescue analgesic.

Second, the authors expressed concerns that our study participants may have received insufficient postoperative pain control based on the pain intensity results. Although we administered non-opioid analgesics and performed nerve blockade in both groups, we observed high pain scores immediately after surgery. It is plausible that the participants' responses to the pain assessment might have influenced these results. According to a recent prospective study on the cutoff pain scores for mild, moderate, and severe pain in adult Korean patients, the cutoff score between mild and moderate pain was 5.5 on the numeric rating scale [3]. Our previous prospective study conducted in a post-anesthesia care unit yielded similar results [4]. Since we did not provide specific guidance beyond the numeric rating scale (with 0 indicating no pain and 10 indicating the worst pain imaginable), the participants tended to respond with scores closer to the midpoint of 5 when their consciousness was not entirely clear immediately after surgery.

Third, the authors highlighted the high occurrence rate of postoperative nausea and vomiting (PONV) among

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our patients. To prevent PONV, we implemented multimodal prophylaxis including intravenous dexamethasone and ramosetron. In addition, we used intravenous opioids as rescue analgesics only. Despite these efforts, a significant number of patients experienced PONV, which may be attributed to the procedure itself, as laparoscopic cholecystectomy is known for its relatively high incidence of PONV [5]. Additionally, all degrees of PONV, even transient mild nausea, were included in outcome, which likely increased the incidence of PONV.

Lastly, the authors questioned our choice of M-TAPA and subcostal TAPB over regional blocks such as the thoracic erector spinae plane block (ESPB) or paravertebral block (PVB), which could also be effective in managing visceral pain. Our response to this question is outlined in the fourth paragraph of the discussion section. We opted for subcostal TAPB and M-TAPA over various other regional blocks because they can be easily performed in the supine position during anesthesia induction. Techniques such as thoracic ESPB and PVB require needle insertion closer to the spinal cord and would necessitate turning the patient to a lateral position, leading to potential delays, given the short duration of laparoscopic cholecystectomy. By performing nerve blocks in the supine position alongside anesthesia induction, we were able to promptly initiate surgery without any delay. Although various regional blocks have shown effectiveness in postoperative pain control, the implementation of such techniques can be hindered in clinical practice due to potential surgical delays [6,7]. We acknowledge that this constitutes a significant obstacle to the adoption of these techniques, and plan to address these issues further.

We highly value the constructive criticism provided on our study and hope that this revised explanation of our results clarifies any uncertainties.

DATA AVAILABILITY

Data sharing is not applicable to this article as no datasets were generated or analyzed for this study.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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AUTHOR CONTRIBUTIONS

Ho-Jin Lee: Writing/manuscript preparation.

ORCID

Ho-Jin Lee, https://orcid.org/0000-0002-7134-5044

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