Journal of Anesthesia (2022) 36:667
https://doi.org/10.1007/s00540-022-03092-1

LETTER TO THE EDITOR

Response to letter: Assessing analgesic consumption after shoulder surgery

Youngwon Kim[1] · **Jin-Tae Kim**[1]

Received: 25 July 2022 / Accepted: 28 July 2022 / Published online: 9 August 2022

To the Editor:

We thank Xue Gao et al. for their interest and valuable comments on our recent article [1]. We hope following additional information can improve reader's interpretation of our findings.

First, 65 over 68 patients had shoulder pain before operation. There was no difference in both preoperative NRS score of shoulder pain and the duration of pain. Preoperative numeric rating scale (NRS) score was 3.5±2.0 in C group and 3.0 ± 1.4 in R group ($P=0.25$). The duration of pain was 17.2 ± 23.9 months in C group, while 21.4 ± 27.5 months in R group ($P=0.50$). Only one patient of R group was diagnosed with major depressive disorder before surgery.

Second, we assessed postoperative pain level at resting state. Since all patients were wearing arm braces to limit the range of motion postoperatively, pain during movement was not evaluated.

Third, as described in method section, a bolus dose of intra-venous patient-controlled analgesic (IV-PCA) was allowed to be administered at a time when the patient required additional analgesic regardless of the NRS score. As we mentioned in the limitation section of the discussion, sufficient pain control was not achieved between 12 and 24 h postoperatively. This means that rebound pain should be paid more attention.

Fourth, when converted to morphine milligram equivalent (MME), the mean PCA consumption over 24 h postoperatively was 15.0 MME in C group and 23.8 MME in R group ($P=0.02$). The conversion factor of intravenous fentanyl, nefopam, and tramadol for MME was 100, 1.67, and 0.1, respectively [2, 3].

References

1. Kim Y, Bae H, Yoo S, Park SK, Lim YJ, Sakura S, Kim JT. Effect of remifentanil on post-operative analgesic consumption in patients undergoing shoulder arthroplasty after interscalene brachial plexus block: a randomized controlled trial. J Anesth. 2022. https://doi.org/10.1007/s00540-022-03085-0.
2. Fine PG, Portenoy RK. Establishing "best practices" for opioid rotation: conclusions of an expert panel. J Pain Symptom Manag. 2009;38(3):418–25. https://doi.org/10.1016/j.jpainsymman.2009.06.002.
3. Sunshine A, Laska E. Nefopam and morphine in man. Clin Pharmacol Ther. 1975;18(5 Pt 1):530–4. https://doi.org/10.1002/cpt1975185part1530.

This reply refers to the comment available online at https://doi.org/10.1007/s00540-022-03090-3.

✉ Jin-Tae Kim
jintae73@gmail.com

[1] Department of Anesthesiology and Pain Medicine, Seoul National University Hospital, Seoul National University College of Medicine, 101, Daehak-ro, Jongno-gu, Seoul 03080, Korea