

Effects of the Different Doses of Esketamine on Postoperative Quality of Recovery in Patients Undergoing Modified Radical Mastectomy: A Randomized, Double-Blind, Controlled Trial [Response to Letter]

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Dear editor

We thank Prof. Xue et al for their kind comments on the rigor of our recently published clinical study suggesting the effect of the different doses of esketamine on postoperative quality of recovery in patients undergoing modified radical mastectomy: a randomized, double-blind, controlled trial.¹ We agree that their questions would further clarify some details of the study protocol.

First, we collected and analysed preoperative QoR-15 scores in our trial. Because of the primary outcome of this study is the QoR-15 scores after surgery (POD1 and POD3), in addition, preoperative QoR-15 scores was not differences in all three groups (Table 1). Therefore, we only selected the QoR-15 scores on POD1 and POD3 in the present study.

Second, we did not collect data about the total dosages of remifentanyl and propofol during perioperative period between the three groups. As you described, the available evidence indicates that combined use of esketamine can reduce the dosages of remifentanyl and propofol required for anesthesia maintenance, but we found that esketamine administration increased the BIS value, therefore, we did not significantly reduce the dosage of propofol in our study based on BIS value. In addition, all three groups received a continuous infusion of remifentanyl at a rate of 0.15µg·kg·min during anesthesia could not reflect the opioid-sparing effect of esketamine, which was stated in limitation of our study.

Third, multimodal strategy of postoperative analgesia is often used for perioperative pain management in clinical practice, non-opioid drugs combined with nerve block are commonly used to achieve satisfactory analgesic effect and reduce postoperative adverse reactions. But in our hospital, patients with modified radical mastectomy do not routinely use postoperative analgesic pump after surgery, and the cost also limits the use of postoperative analgesic pump and the method of nerve block, therefore, multimodal strategy of postoperative analgesia was not used in this study due to the above reasons.

Fourth, in this study, since we did not observe these indicators in this study (such as duration of postanesthesia care unit stay, time to early mobilization, time to hospital discharge, readmission and the occurrence of postoperative

Table 1 The Comparison of Preoperative QoR-15 Scores between Groups

Index	Group C (n=33)	Group E ₁ (n=33)	Group E ₂ (n=33)	P
Preoperative total QoR-15 scores	133(130.0–136.5)	134(130.5–137.0)	136(131.5–138.0)	0.335

complications), we will pay more attention to these observations in future studies to see if improving quality of early postoperative recovery by intraoperative esketamine infusion can be translated into early postoperative benefits of female patients undergoing modified radical mastectomy.

To sum up, we deeply thank Prof. Xue et al for these questions.

Disclosure

The authors report no conflicts of interest in this communication.

Reference

1. Zhu M, Xu S, Ju X, Wang S, Yu X. Effects of the different doses of esketamine on postoperative quality of recovery in patients undergoing modified radical mastectomy: a randomized, double-blind, controlled trial. *Drug Des Devel Ther*. 2022;16:4291–4299. doi:10.2147/DDDT.S392784

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