The authors reported no conflicts of interest.

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## REPLY: POSTOPERATIVE PAIN AFTER THORACIC SURGERY: A NEVER-



## ENDING JOURNEY TO FIND THE RIGHT PAIN MANAGEMENT Reply to the Editor:

Postoperative pain is generally greater after thoracic surgery than after other surgeries. Despite the efforts of a minimally invasive approach, patients—although reporting less pain than open thoracotomy in terms of degree and duration—still report high pain levels. This seems to be a clear hurdle for patients seeking early recovery.

Intravenous patient-controlled analgesia (PCA), when compared with epidural PCA, has been widely adopted and used in various surgeries, including thoracic surgery, due to its ease of application and minimal procedure time. However, with the recent dedication to reduce the use of opioid analgesics, many alternative methods are being studied. As part of this effort, we studied whether the needle electrical twitch-obtaining intramuscular stimulation (NETOIMS) could be a new modality for pain management. We were able to discover that NETOIMS—by relaxing the intercostal muscles around the incision—is a sufficiently effective method in reducing postoperative pain. It is also important to note that more than one half of the patients receiving intravenous PCA ended up stopping the PCA because of severe nausea, vomiting,

dizziness, and other side effects. In these patients, the postoperative experience was worsened as the result of having to endure these side effects.

The method involving posterior intercostal nerve block via the use of liposomal bupivacaine may also be effective and thus a good alternative. However, we feel that it is important to consider the appropriateness of postoperative medication. Of course, there are various factors that influence postoperative pain after thoracic surgery and, as such, a multimodal approach is a must for pain management after thoracic surgery. One such approach can be NETOIMS. Further studies with large sample size, appropriate controls, and validation cohorts at other institutions are needed to confirm our findings and to share experiences.

Duk Hwan Moon, MD Sungsoo Lee, MD, PhD Department of Thoracic and Cardiovascular Surgery Gangnam Severance Hospital Yonsei University College of Medicine Seoul, Republic of Korea

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https://doi.org/10.1016/j.xjon.2022.12.001