




# Comparing Analgesic Efficacy and Clinical Benefits of Fascial Plane Blocks Following Open Hepatectomy [Letter]

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## Dear editor

Regarding the recent article by Mao et al,<sup>1</sup> comparing the analgesic efficacy and clinical benefits of ultrasound-guided quadratus lumborum block at the lateral supra-arcuate ligament (QLB-LSAL) and subcostal transversus abdominis plane block (TAPB) in patients undergoing open hepatectomy, we have several questions about their methodology and results.

First, the primary outcome of this study was milligram morphine equivalents (MEQ) of cumulative opioid consumption within 24 h postoperatively, and the sample size was calculated based on the results of a pilot study. However, the authors did not clearly provide the sample size of their pilot study or the absolute between-group difference in MEQ. In particular, they did not specify what effect size was clinically significant. This may result in an inappropriate interpretation of their findings that is only based on statistically significant differences rather than clinically significant differences in pain outcomes.<sup>2</sup> For example, the available literature recommends that the minimal clinically important difference in MEQ is an absolute reduction of 10 mg intravenous morphine in 24 h.<sup>3</sup> Thus, we believe that clarification of these issues would improve the transparency of the study design.

Second, a main aim of this study was to establish a multimodal analgesic strategy, which complies with the requirements of current enhanced recovery after surgery (ERAS) practices for open hepatectomy, ie, fast functional recovery with adequate pain control while minimizing opioid consumption and side effects. However, the multimodal analgesic strategy used in this study did not include basic analgesics, such as acetaminophen, cyclooxygenase-2 inhibitors, gabapentinoids and ketamine. It is generally believed that these drugs are the cornerstones of a multimodal analgesia strategy to reduce perioperative opioid consumption and opioid-related side effects.<sup>4</sup> Thus, we argue that different results on the comparison of postoperative analgesic efficacy between the QLB-LSAL and subcostal TAPB would have been obtained if this study design had included a package of basic analgesics.

Third, the numeric rating scale (NRS) pain scores at rest and during coughing at 2, 6, 12 and 24 h postoperatively were significantly decreased in patients receiving the QLB-LSAL compared to those receiving the subcostal TAPB, but the net between-group differences in NRS pain scores at these time points were less than 1, which is less than the recommended minimal clinically important difference of a pain score reduction of 1.5 in a randomized clinical trial.<sup>3</sup> Furthermore, mean pain scores at rest and during coughing were greater than 3 at all observed time points within 48 h postoperatively, indicating that a significant proportion of patients had inadequate postoperative pain control. In addition, this study did not assess and compare patient satisfaction with postoperative analgesia. In these cases, we cannot determine whether slight between-group differences in postoperative NRS pain scores at rest and during coughing are clinically significant.

Finally, the authors did not determine whether there was a treatment effect on the cumulative opioid consumption over the first 2 postoperative days, although the duration of a single-injection local block is not expected to exceed 24 h. This analysis is very important to understand the opioid-sparing effect of a local block, and can be completed by

a simple linear regression model with log-transformed cumulative opioid consumption to estimate the ratio of geometric means.<sup>5</sup>

## Disclosure

All authors declare that they have received no financial support and have no potential conflicts of interest for this communication.

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