

Efficacy of Ultrasound-Guided Interscalene Brachial Plexus Block for Acute Post-Hepatectomy Shoulder Pain: A Randomized Controlled Trial [Letter]

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Dear editor

We are writing in response to the research article “Efficacy of Ultrasound-Guided Interscalene Brachial Plexus Block for Acute Post-Hepatectomy Shoulder Pain: A Randomized Controlled Trial” by Zhou et al.¹ The authors effectively demonstrated the efficacy of the interscalene block (ISB) in relieving post-hepatectomy shoulder pain and proposed it as a promising alternative to phrenic nerve block. However, there are several aspects of the study that warrant further consideration to enhance its rigor and clinical impact.

First, while the study reported significant short-term pain relief, the role of epidural anesthesia as a potential confounding factor is underexplored. Epidural anesthesia, commonly used in liver surgeries, has been shown to increase the risk of post-hepatectomy shoulder pain due to its opioid-sparing effects.² In this study, the authors administered 300 mg of ropivacaine combined with 100 µg of sufentanil for postoperative epidural analgesia, which could have masked the true effectiveness of ISB in controlling shoulder pain.¹ A comparison of ISB with general anesthesia alone or non-epidural analgesic techniques would provide a clearer picture of ISB’s independent effect on postoperative shoulder pain.

Second, the study lacks a comparison to phrenic nerve-sparing techniques, such as suprascapular or superior trunk blocks, which are increasingly favored for patients at risk of respiratory complications. ISB is associated with a near-100% incidence of phrenic nerve paralysis, as acknowledged by the authors.³ A comparison with these alternative blocks could have offered a more comprehensive assessment of pain management options, particularly for patients who may benefit from reduced respiratory risks.⁴

Third, secondary outcomes, such as patient satisfaction and quality of recovery, were not sufficiently analyzed. Although satisfaction scores were mentioned briefly, the study did not assess other patient-reported outcomes like sleep quality, mobility, or overall comfort—factors that are crucial for evaluating the tolerability and efficacy of postoperative interventions.⁵ Future studies should include a more thorough analysis of these outcomes to provide a holistic understanding of the intervention’s impact on recovery.

Finally, the potential for long-term complications, such as chronic pain, prolonged sensory deficits, or motor impairment, was not addressed. While ISB offers effective short-term relief, it is known to carry risks of nerve damage, which may persist beyond the immediate postoperative period. Long-term follow-up is necessary to assess any residual numbness or motor dysfunction that may result from ISB.⁶

In conclusion, while the study offers valuable insights into the use of ISB for post-hepatectomy shoulder pain, addressing the aforementioned limitations will improve the generalizability and clinical relevance of future research. By

considering alternative techniques, analyzing secondary outcomes more thoroughly, and evaluating long-term effects, subsequent studies can provide more robust data to inform clinical decision-making.

Disclosure

The author(s) report no conflicts of interest in this communication.

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