

Comment on Ultrasonography-guided Erector Spinae Plane Nerve Block May Not Always Contribute to Enhanced Recovery after Spine Surgery

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Dear Editor,

A recent communication in this journal questions the role of the erector spinae plane block (ESPB) for pain relief in lumbar spinal surgery.^[1] I wish to draw attention to some important issues.

Asserting that ultrasound-guided ESPB may or may not contribute to enhanced recovery following spinal surgery based on the experience of a single case is at best a tenuous assumption.

Suresh suggests that surgical disruption of the tissues may result in significant 'loss' of local anesthetic (LA), leading to a reduction in analgesic efficacy of ESPB. However, in the described case, the patient reportedly had good quality intraoperative and early postoperative pain relief following bilateral single shot ESPB. While the mechanism of action of ESPB remains to be definitively elucidated, all of the proposed mechanisms to date ultimately rely on the injected LA travelling to sites of action remote from the site of injection.^[2] Indeed one of the key ultrasonic end points of ESPB is the observation of LA spread away from the injection site. This is one reason why ESPB may be an attractive technique for analgesia in spinal surgery.

The postoperative pain scores reported were stated to be visual analog scale (VAS) scores. While the VAS is considered the 'gold standard' for unidimensional pain scoring, its use is not considered ideal in the immediate postoperative period, as patients often find it difficult to understand at this time.^[3] Furthermore, the VAS rarely produces consecutive integers, so it is more likely that the author has confused the VAS with the numerical rating scale (NRS). There are important differences in these pain scoring tools.

No mention is made of preoperative pain scores or any preoperative analgesic regimen, but by definition, the patient had chronic pain, which had included a neuropathic component for at least one month. This is likely to affect the perioperative response to analgesia and a multimodal approach is essential. A single injection of bupivacaine for the treatment of acute nociceptive pain is likely to last <24 h, so it is not too surprising that the analgesic effects of ESPB did not last beyond 24 h. In addition, it is critically important that anesthesiologists using regional techniques either as a sole anesthetic, or in combination with general anesthesia, understand the phenomenon of rebound pain, a quantifiable difference in pain scores when nerve blockade is effective and when the nerve blockade has resolved.^[4] No regional technique is likely to be entirely successful if considered in isolation.

Finally, with any regional anesthesia technique, there is the possibility of technical failure. It is impossible to know how much ESPB contributed to analgesia in this single case. No end point measured was a unique test of ESPB efficacy, and it is not known what the pain scores would have been had the patient not received ESPB. Suresh recognizes that randomized controlled trials are required to determine the efficacy of ESPB in lumbar spinal surgery, but on the basis of a single case questions, the results of such a trial.^[5]

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Conflicts of interest

There are no conflicts of interest.

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