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Erector Spinae Plane Block for a Patient who Underwent Both Bilateral Mastectomy and Right Video-Assisted Thoracic Surgery

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Dear Editor,

Clinicians usually opt for a procedure that is easy and simple to perform and has low risk of complications during postoperative analgesia management. Techniques such as thoracal epidural analgesia (TEA) and paravertebral block are invasive and difficult to use in practice (1). Opioids are usually preferred for intravenous analgesia, but their use may cause adverse events, such as respiratory depression, nausea and vomiting (2). Thus, ultrasound (US)-guided interfascial plane blocks are increasingly being used in daily anaesthesia practice. Erector spinae plane block (ESPB) is a novel US-guided interfascial plane block that may provide both thoracic and abdominal analgesia (3, 4). Here we would like to report our experience of performing ESPB for a patient who underwent multiple surgeries. Written informed consent was obtained from the patient for reporting of this case.

A 62-year-old woman, weighing 87 kg and having an American Society of Anesthesiologists physical status of 2 (arterial hypertension), underwent both bilateral mastectomy with lymphadenectomy and right video-assisted thoracic surgery lobectomy. Before induction of anaesthesia while the patient was in sitting position, bilateral US-guided ESPB was performed after local anaesthetic infiltration to the skin under aseptic conditions. For left operation site, a linear US probe (12 MHz) with a sterile sheath was placed in a sagittal orientation at the level of T5. The trapezius, rhomboid major and erector spinae muscles were seen above the hyperechoic transverse process view. Then, a 22-gauge, 50-mm block needle was inserted in the interfascial plane below the erector spinae muscle in a caudal-to-cephalad direction; 2 mL saline was injected for correction. A total of 20 mL of 0.25% bupivacaine was administered. For right operation site, an 18-gauge, 80-mm Tuohy epidural needle was used. A total of 20 mL of 0.25% bupivacaine was administered, following which an epidural catheter was placed for continuous infusion. The patient was observed for 48 h. For left site, the maximum passive and active visual analogue scores (VAS) were 2 points. For right site, the maximum passive VAS score was 2 points and maximum active VAS score was 3 points. The withdrawal time of the catheter was 48 h.

Erector spinae plane block is performed into the deep fascia of erector spinae muscle. This area is located superior to the transverse process and far away from important structures such as the pleura and neuroaxial tissues. It can be clearly visualised on US, and the local anaesthetics spread in a craniocaudal direction in this area; thus, the block targets the ventral and dorsal rami of the spinal nerves (3-5). In our patient, we had planned to perform TEA first, but we could not apply it because of the failure of TEA procedure. An alternative option is pectoral nerve block, but it was not possible to place a block catheter into the interfascial area between pectoral muscles for continuous infusion. Another alternative may be intercostal blockage, but it requires multiple injections. Therefore, we performed ESPB in our patient. An intravenous injection of ibuprofen 400 mg at every 8 hours was performed postoperatively. No additional analgesic was administered.

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In conclusion, ESPB may provide effective postoperative analgesia, and it may be preferred as the first-step regional analgesia technique in cases such as our patient.

Informed Consent: Written informed consent was obtained from patient who participated in this case.

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