

Letter to the Editor

Ultrasound-guided erector spinae plane block provides effective perioperative analgesia and anaesthesia for thoracic mass excision: A report of two cases



postoperative analgesia in the thoracic surgeon with this effect [4]. We shared our clinical experience of perioperative anaesthesia and analgesia management with US-guided ESB in two adult patients.

Dear Editor,

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The ultrasound-guided (US) erector spinae block (ESB) is an interfacial plan block defined in 2016 [1]. It was reported that the ESP block can act at multiple levels with a single injection of T5 level and can block sympathetic nerve fibres as well as block the dorsal and ventral ramus of the thoracic spinal nerves [2,3]. ESP block is a regional anaesthesia method that may be preferred for

1. Case 1

An operation was planned for a mass lesion destructing the left 4th and 5th ribs of a 67-year-old male patient (height 170 cm, weight 80 kg). In the preoperative evaluation, the results of the PFT test of the COPD-diagnosed patient were in agreement with advanced obstruction and restriction. On the ECO examination, the patient was diagnosed with cor pulmonale. The patient, who was assessed as American Society of Anesthesiologists (ASA) classification 4, was described as having a high risk of general anaesthesia in terms of chest wall resection and reconstruction. The chest surgeon team planned the mass excision. The ESB block with US guidance was applied to this patient, who has a very high risk for general anaesthesia. The patient was placed in a sitting position. The high frequency linear ultrasonic probe was placed 3 cm lateral to the processus spinosus of the T5 vertebra. Process transversus,

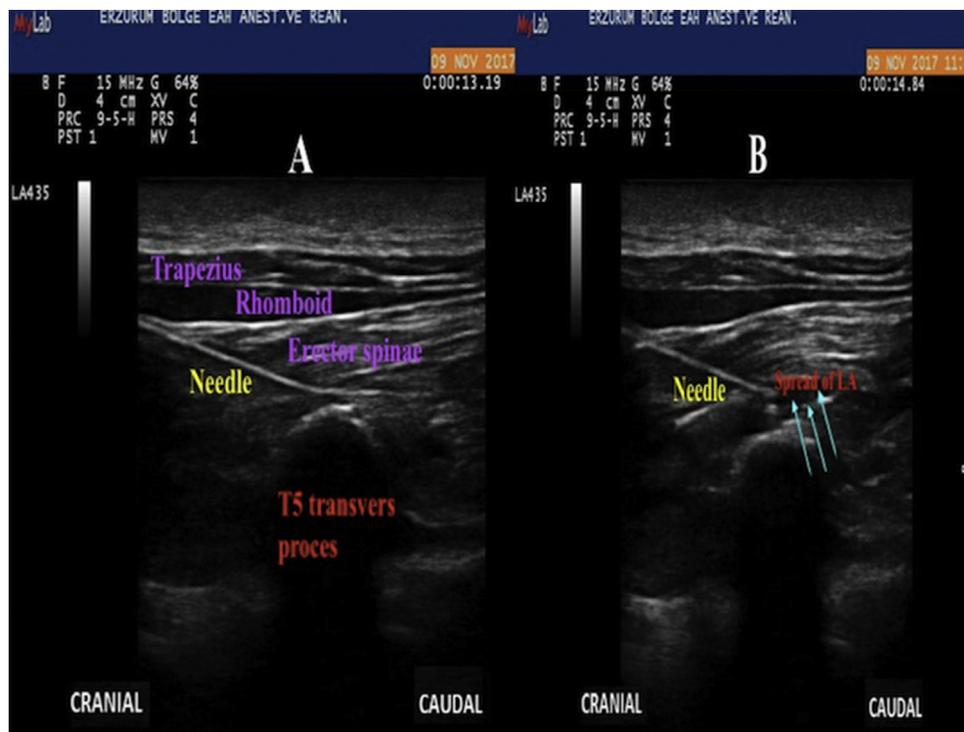


Fig. 1. A. Sonographic anatomy of ESP block. B. After local anaesthetics administration.

erector spinae muscle, rhomboid muscle and trapezeus muscle were viewed. Using in-plane technique, a 50 mm block needle (BBraun 360, Melsungen, Germany) was entered from cranial to the caudal direction and reached under the deep fascia of the erector spinae muscle. After negative aspiration, the needle position was confirmed with normal saline and 20 mL of 0.25% bupivacaine was injected (Fig. 1).

Thirty minutes after the block, the patient underwent a pinprick test to examine pain existence and a hot-cold test to examine sensation, and the operation started. After the patient was placed in the right lateral decubitus position, 0.3 mg/kg midazolam and 1 mcg/kg fentanyl were administered and surgical treatment started with 2 L/min O₂ nasal cannula. The patient did not feel pain during the operation.

2. Case 2

A surgical operation was planned for a 63-year-old female patient (height 158 cm, weight 70 kg) to remove the mass lesion extending from the left hemithorax to the left paravertebral muscles at the level of 8–10 ribs. The patient, who was diagnosed with ASA 2 in the preoperative evaluation, had hypertension and exercise dyspnea. Ejection fraction was noted as 65%, while the mild degree of aortic and mitral valve insufficiency was detected in the ECO of the patient. For a mass biopsy, a right lateral decubitus position was assigned to the patient to be operated by a team of chest surgeons, and US-guided ESP blocks were applied. Thirty minutes after the block, the patient underwent a pinprick test to examine pain existence and a hot-cold test to examine sensation, then, was received 0.03 mg/kg midazolam and 1 mcg/kg fentanyl intravenously and the operation started. The patient did not feel pain during the operation.

3. Discussion

The clinical application frequency of interfacial approach regional anaesthesia techniques is gradually increasing [5]. US-guided ESP block was defined in 2016 and is a new method that can be used for postoperative analgesia in thoracic surgeons. Also, ESP block can be a safer method regarding ease of administration and possible complications when compared with a thoracic paravertebral block and thoracic epidural.

ESP block in both of our cases was safe and effective for perioperative anaesthesia and analgesia. However, considering that the risk of general anaesthesia is very high in our first case, we think that it is clinically significant to have anaesthesia and analgesia with ESP block.

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Disclosure of interest

The authors declare that they have no competing interest.

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