Contents lists available at ScienceDirect



Journal of Clinical Anesthesia

journal homepage: www.elsevier.com/locate/jclinane

# Correspondence

# Ultrasound-guided lumbar erector spinae plane block: The sole anesthetic method for emergent strangulated inguinal herniorrhaphy for a patient on anticoagulant treatment



## ARTICLE INFO

Keywords: Erector spinae plane block Myomectomy Ultrasound Postoperative analgesia

## To the Editor;

Strangulated inguinal hernia is an emergent surgical condition. Surgical treatment should be provided as soon as it is diagnosed to prevent bowel necrosis and the relief of pain. Neuraxial block is contraindicated when international normalized ratio (INR) is > 2. Therefore general anesthesia was provided for the patients on anticoagulant medication with INR > 2.

The INR value of our patient was 2.6 since he was using Asprin and Coumadin because he had coronary artery stents on circumflex and right coronary artery which were fixed four months ago during coronary angiography. The patient was a heavy smoker and had chronic obstructive pulmonary disease for 20 years. He had controlled hypertension and diabetes mellitus. He also had congestive heart failure. His echography revealed an ejection fraction of 20%. He was red bidden and his American Society of Anesthesiologists Physical Status(ASA-PS) was graded as ASA-PS IVE. Under these circumstances, we decided to perform an ultrasound guided high lumbar erector spinae plane block as the sole anesthetic method with mild sedation for the planned emergent surgery (Fig. 1).

The ESPB was first described by Forero et al. [1] for the treatment of neuropathic pain. Since then, the ESPB has become a prosperous plane block to provide postoperative analgesia after several surgical settings [2–5]. We want to present our results with ultrasound-guided high lumbar ESPB for surgical anesthesia in a patient on anticoagulant treatment who had to undergo an emergent strangulated inguinal herniorrhaphy.

The patient was a 71 years old male admitted to emergency room with severe pain due to inguinal hernia. His ultrasound examination revealed an incarcerated inguinal hernia with bowel distention. He was consulted with the general surgeon and an emergent surgery was decided. Written informed consent was obtained from the patient for the ESPB, sedation, inguinal herniorrhaphy, and for the use and publishing of the data.

On arrival to the operation room, he was monitored, and an intravenous line was secured. After sedation with 2 mg midazolam and 1 mg/kg ketamine in the prone position, L1 vertebra transverse process was identified 4.5 cm lateral to the midline navigated with the 2-5 MHz convex probe of ultrasound (Esaote MyLab30, Florence, Italy) in sagittal axis. Under aseptic conditions, block needle (Temena GmbH, Felsberg, Germany) was inserted in cranio-caudal direction with inplane technique. Contact of the needle with the transverse process was visualized. After confirmation of erector spinae plane with 2 ml of saline, 10 ml 0.25% bupivacaine and 10 ml 1% prilocaine were injected. The patient was turned to supine. Fifteen minutes after the ESPB, the patient defined numbness between T10- L3 dermatomes, and the surgery was commenced.

The operation lasted for 35 min. The patient was followed-up at recovery room for 2 h. Diclofenac 75 mg intravenous and paracetamol 1 gr intravenous every 6 h was ordered if his numeric rating scale (NRS) was > 2, and Meperidine 25 mg intramuscular was prescribed as rescue analgesic if NRS > 4. He did not ask for any rescue analgesic in the ward. We did not observe hematoma or any neurologic complications during the follow-up period until he was discharged on postoperative second day. No complication was reported related to surgery and ESPB.

We performed the ultrasound-guided high lumbar ESPB as the sole anesthesia technique for a patient undergoing emergent strangulated inguinal herniorrhaphy surgery who was on anticoagulant medication. We suggest that ultrasound-guided high lumbar ESPB is an effective alternative to either neuraxial blocks or general anesthesia for the patients who are on anticoagulant treatment and in need of emergent herniorrhaphy surgery with ASA-PS IVE.

# Financial support and sponsorship

The authors received no funding for this work. Written informed consent was obtained from the patient for the procedure and publication.

## Declaration of competing interest

The authors declare no conflicts of interest.

https://doi.org/10.1016/j.jclinane.2019.109685 Received 19 November 2019; Accepted 1 December 2019 0952-8180/ © 2019 Elsevier Inc. All rights reserved.



Fig. 1. Ultrasound images before and after ESPB

#### References

- Forero M, Adhikary SD, Lopez H, Tsui C, Chin KJ. The erector spinae plane block: a novel analgesic technique in thoracic neuropathic pain. Reg Anesth Pain Med 2016;41:621–7.
- [2] Canturk M. Ultrasound-guided bilateral lumbar erector spinae plane block for postoperative analgesia after spondylolisthesis correction surgery. J Clin Anesth 2019;57:77–8.
- [3] Canturk M. Ultrasound-guided lumbar erector spinae plane block: a new alternative for the treatment of post-herniorrhaphy neuralgia. J Clin Anesth 2019;58:128–9.
- [4] Canturk M. Lumbar erector spinae plane block for postoperative analgesia after nephrectomy followed by emergent complication surgery. Minerva Anestesiol

#### 2019;85:1032-3.

[5] Canturk M, Canturk FK. Ultrasound-guided bilateral lumbar erector spinae plane block for postoperative analgesia after myomectomy with Pfannenstiel incision. J Clin Anesth 2020;59:40–1.

Mehmet Canturk\*

Department of Anesthesiology and Reanimation, Kirsehir Ahi Evran University Training and Research Hospital, Kervansaray Mah., 2019, Sok D:1, 40200 Merkez, Kırşehir, Turkey E-mail address: drmcanturk@gmail.com.

<sup>\*</sup> Kervansaray Mah., 2019. Sok D:1, 40200 Merkez, Kırşehir, Turkey.