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Ultrasound-guided lumbar erector spinae plane block: A new alternative for the treatment of post-herniorrhaphy neuralgia

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To the Editor;

Pain after herniorrhaphy is common but expected to subside within two months after surgery. When the pain persists more than two months, the patient is presumed to have post-herniorrhaphy neuralgia (PHN). The pain can be moderate to severe in nature and can be disabling [1].

The stepwise approach for PHN includes watchful waiting, basic analgesics, systemic analgesics, groin nerve block, and surgical treatment [2]. Up to date surgical mesh removal and nerve excision is known to be the last step for the management of PHN. Nerve stimulation was presented as an alternative treatment method with limited efficacy.

The erector spinae plane block (ESPB) is a novel plane block where local anesthetic is injected between the transverse process and the fascia of the erector spinae muscle was first described by Forero et al. [3] for the treatment of thoracic neuropathic pain. Thereafter lumbar ESPB was documented to provide effective postoperative analgesia following various surgical settings [4]. We are presenting our experience with lumbar ESPB for the management of PHN where all other pain management modalities failed.

The patient was a 61 years old male patient with controlled hypertension. He was operated for inguinal hernia repair four years ago. He had a persistent groin pain after the surgery. He was prescribed non steroidal anti inflammatory drugs and gabapentin. He used the medications for six months but there was no change in his pain. Two years after the operation, he admitted to a pain clinic and groin nerve block was applied to treat his pain. He responded well for two days but the pain recurred again. One year ago he admitted to general surgery clinic and the surgeon decided to remove the mesh with nerve excision. Two months after the last operation, the patient still complained about groin pain graded 8/10 with numeric rating scale (NRS). He was consultated to our clinic for the treatment of PHN. Since all treatment modalities were tried for the management of the patient's pain and all failed, we decided to perform ultrasound-guided lumbar ESPB to control the PHN pain of the patient. Written informed consent was obtained from the patient for the lumbar ESPB and for the use and publishing of the data.

An intravenous line was secured on the dorsum of left hand at the ward and the patient was transferred to operation room. The patient was monitored, and 2 mg intravenous midazolam was injected for sedation. Following sterile draping in the prone position, L2 vertebra was navigated with the 2–5 MHz convex probe (Esaote MyLab30, Florence, Italy) and the transverse process was identified 4 cm lateral to the midline. Block needle (Temena GmbH, Felsberg, Germany) was inserted in cranio-caudal direction with in-plane technique. Contact of the needle with the midpoint of 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 was injected (Fig. 1).

The NRS score of the patient was 1/10 ten minutes after the lumbar ESPB. The dermatomes covered with Lumbar ESPB performed at L2 vertebra level covered T6 – L5 dermatomes. There was no motor weakness. The patient was followed-up for 2 h and transferred to ward. No complication was reported related to ESPB. Six hours after ESPB, he was assessed with NRS for his PHN pain and he replied 0/10. He was discharged free of pain.

We performed the ultrasound-guided lumbar ESPB at L2 level for the management of PHN. It has been two months since the lumbar ESPB was performed and the patient is still free of pain. We suggest that ultrasound-guided lumbar ESPB is an effective treatment modality for PHN. Moreover, it may be considered for the management of PHN before performing mesh removal and nerve excision.

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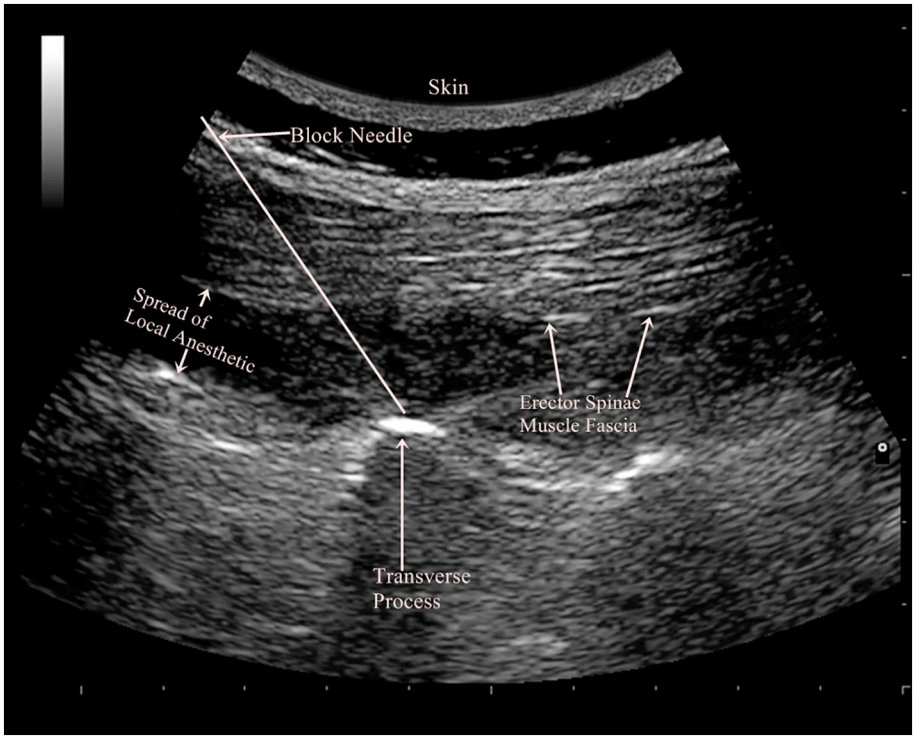

Fig. 1.

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Declaration of competing interest

None.

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