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Letters to the Editor

Erector Spinae Plane Block for Hyperalgesic Acute Pancreatitis

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Dear Editor,

A 58-year-old woman with a medical history of hypertension, ischemic heart disease, and diabetes mellitus presented to the emergency department with ongoing abdominal pain located in the epigastric region and radiating toward the back, related to acute pancreatitis (AP). Her daily medications included ramipril 5 mg, amlodipine 10 mg, aspirin 100 mg, and insulin.

Initially, she had no clinical complications of pancreatitis but a computed tomography Balthazar E grade score. The pain was rated at 10/10 on the numerical rating scale (NRS) during the worst exacerbations. Multimodal analgesia was started with paracetamol, nefopam, and morphine titration. However, intravenous analgesics were of limited benefit to the patient as she continued to report severe pain despite a total dose of 18 mg of morphine. Epidural analgesia (EA) was indicated, but we planned to perform a novel alternative technique consistent with a bilateral erector spinae plane (ESP) block.

The patient was placed in a prone position, and a high-frequency linear ultrasound transducer was placed in longitudinal parasagittal orientation 3 cm lateral to T6 spinous process. The erector spinae muscle was identified superficial to the tip of T6 transverse process. The patient's skin was anesthetized with 2% lidocaine, and then a 22-gauge 10-cm needle was inserted using an in-plane approach to place the tip into the fascial plane of the deep aspect of the erector spinae muscle (Figure 1); 15 mL of bupivacaine 0.5% was injected into each side. The procedure was well tolerated, and no complications were encountered. Approximately 15 minutes after the block procedure, the adequacy of the blockade was assessed using a pinprick test over the lower thorax and abdomen. T4–T10 dermatome block was achieved. The NRS score of the patient was reduced to 2 and remained low over the course of the day. The next day, she was discharged without serious pain to the medical ward.

Different techniques have been described to provide high analgesic effectiveness in AP. Among them, EA has shown a specific beneficial effect both on decreasing pain and reducing mortality mainly attributable to the anti-inflammatory effect of local anesthetic (LA) combined with a sympathetic nerve blockade, which redistributes splanchnic blood flow to nonperfused pancreatic regions [1,2]. Patients who receive anticoagulant or antiplatelet therapy are at increased risk for hemorrhagic complications of neuraxial techniques, most notably spinal epidural hematoma.

The transversus abdominis plane block has also been described in case reports as an adequate analgesic technique in AP [3,4]. However, questions have been raised regarding the mechanism of action of a technique typically reserved for somatic pain in relieving abdominal pain of visceral origin.

Over the past months, there has been growing interest in the ESP block, a recently described interfascial plane block that has been used to provide effective analgesia in different situations. This block has been shown to be effective in providing both visceral and somatic abdominal analgesia if the injection is performed at a lower thoracic level [5]. LA spreads in a craniocaudal fashion over multiple levels from a single injection site. It also penetrates anteriorly through the intertransverse connective tissue and accesses the paravertebral space, where it can block ventral and dorsal rami of spinal nerves [6] and also the sympathetic nerve fibers [5].

To our knowledge, this is the first report on using the ESP block for analgesia in AP. We suggest that bilateral

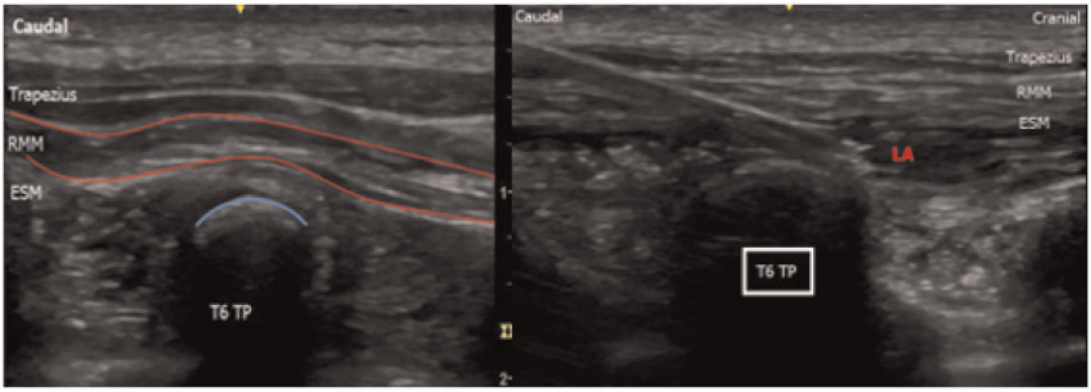

Figure 1. Identification of the plane below the erector spinae muscle and injection of local anesthetic. ESM = erector spinae muscle; LA = local anesthetic; RMM = rhomboid major muscle; TP = transverse process.

ESP block could be an effective alternative to EA in hyperalgesic AP in a clinical situation with opiate resistance. It is also a safe and easy technique as physicians can quickly identify relevant structures and perform the block efficiently.

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The Association Between Acupuncture Training and Opioid Prescribing Practices

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