

to validate our hypothesis.<sup>5</sup> There is no facility to do contrast enhanced local anesthetic spread in the animal or human models at our centre. Hence, further studies might be required to validate our hypothesis.

## Conflicts of interest

The authors declare no conflicts of interest.

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## Quadratus lumborum block in supine position for postoperative pain management in acetabular fracture surgeries: cadaveric and clinical experience

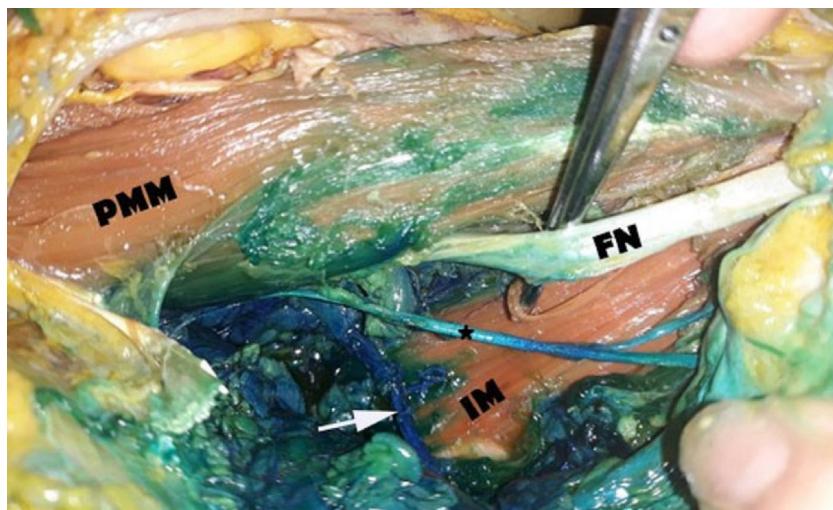


Dear Editor,

We read with interest the case report by Sandeep Diwan et al on supine coronal midaxillary approach to anterior quadratus lumborum block (SCAQLB).<sup>1</sup> Acetabular fractures are usually painful medical conditions. Positioning the patient for regional anesthesia is challenging due to the localiza-

tion of the fracture and severe pain. Quadratus lumborum block (QLB) in supine position gives advantageous in acetabular fracture surgeries for being both easily applicable and potentially effective in postoperative pain management.

In our clinical practice we started to utilize QLB in supine position for acetabular fracture surgeries with a methodology explained by Blanco et al. since 2019 in caesarean section cases.<sup>2</sup> After seeing the effectiveness of it first in four clinical cases, we investigated the distribution of local anesthetic in a fresh cadaver.<sup>3</sup> According to the results of cadaver dissection, we observed that there was no dyeing in the sacral plexus region. On contrast the branches of the lumbar plexus which are femoral nerve, ilioinguinal nerve, lateral femoral cutaneous were dyed (Fig. 1). This spread of methylene blue dye may explain the mechanism of effectiveness of QLB in acetabular region.



**Figure 1** Distribution of the methylene blue in supine QLB. PMM, Major Psoas Muscle; FN, Femoral Nerve; IM, Iliacus Muscle. White Arrow, Ilioinguinal Nerve; \*, Lateral Femoral Cutaneous Nerve.

The use of QLB in the supine position can be an efficient option in postoperative pain management in acetabular fractures. The block does not require the repositioning of the patient. In literature lumbar plexus block was reported to be effective in acetabular fracture pain management, since the primary innervation of the acetabular region originates from the lumbar plexus.<sup>4</sup> As QLB is a fascial plane block, unlike the lumbar plexus block, it is not directly applied to the nerve site; therefore, the risk of intraneuronal injection is lower.

We found an opportunity to perform SCAQLB in three patients. We can say that SCAQLB is easy to perform and has some advantageous for visualization of quadratus lumborum muscle than Blanco et al methodology.<sup>2</sup> Further studies on fresh cadavers may reveal the effectiveness of SCAQLB.

## Conflicts of interest

The authors declare no conflicts of interest.

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## The mid-point transverse process to pleura (MTP) block in chest trauma: a game-changer



Dear Editor,

Road traffic accidents have emerged as a pandemic of the modern world. Chest trauma, being commonly associated with these road traffic accidents, becomes the leading cause of morbidity and mortality. Management of pain is essential in these trauma patients as, along with patient comfort, it also decreases patient's respiratory complications.<sup>1</sup> Various techniques are designed to reduce pain-related complications, including pharmacological drug therapies, and regional or neuraxial nerve blocks techniques. Thoracic Epidural Analgesia (TEA) is considered as gold standard for relieving rib fracture pain. However, it is not free of complications, including dural puncture, accidental hypotension, and cardiovascular collapse.<sup>2</sup> Likewise, the thoracic paravertebral block might also lead to inadvertent vascular puncture, hypotension, epidural or intrathecal spread, pleural puncture, and pneumothorax.<sup>3</sup>

Mid-point transverse process to pleura (MTP) block is a recently described ultrasound-guided novel technique that involves injecting the drug at mid-point between the transverse process and the pleura.<sup>4</sup> In this block, a high frequency (8–15 MHz) linear ultrasound probe is placed

obliquely approximately 3 cm laterally from the midpoint of the spinous process. The block needle (50 mm long) is advanced from caudal to cranial direction of the paravertebral space. When the needle tip reaches the midpoint between the transverse process and the pleura, the drug is given. The drug spreads to the dorsal and ventral rami in the paravertebral space through the fenestrations in the superior costotransverse ligament at the level of injection (Fig. 1).<sup>4</sup> Being a superficial block, landmarks are quickly and easily felt.<sup>5</sup> Thus, it is comparatively easy to insert. It can be easily applied to obese traumatic patients with a compromised position. Due to these advantages, MTP block is much safer than thoracic epidural and thoracic paravertebral blocks by minimizing the risk of pleural puncture and inadvertent intrathecal injections.

Management of acute pain is highly advantageous for enhanced recovery after trauma to prevent the neuroendocrine stress response and thus combat the cascade of events occurring after activation of the sympathetic nervous system and catecholamine release. Therefore, we believe that MTP block can be a game-changer for the chest trauma patients due to an easy approach and reduced risk profile.

## Conflicts of interest

The authors declare no conflicts of interest.