



Letter to the Editor

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Ultrasound-guided rhomboid intercostal block effectively manages myofascial pain

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We have read with great interest the article on rhomboid intercostal and subscapular block by Elsharkawy et al. [1]. They have reported that rhomboid intercostal and subscapular block helps effectively manage pain in patients after major abdominal surgeries. Herein, we would like to report that rhomboid intercostal block (RIB) may also provide effective pain relief in myofascial pain syndrome (MPS). MPS is a chronic disease that affects 21–30% of the population [2]. It originates in the painful trigger points of skeletal muscle, and patients suffer moderate to severe pain. Medications and ultrasound-guided injections at the trigger points may be used to treat MPS [2].

Thanks to the use of ultrasound, interfascial plane blocks have become very popular. RIB was first described by Elsharkawy et al [3]. A local anesthetic solution is administered between the rhomboid muscle and intercostal muscles over the T5–T6 ribs 2–3 cm from the medial border of the scapula. By cadaveric examination, Elsharkawy et al. observed that injectate caudad and cephalad had spread into the deep tissues over the T2–T8 levels containing the posterior primary rami and the clavipectoral fascia of the axillary region (T2–T9). RIB targets the posterior rami and the lateral cutaneous branches of the thoracic nerves, and it provides analgesia for the hemithorax from T2 to T9 [3–5]. Here we report our experience of using RIB in a patient suffering from MPS.

Written informed consent was obtained from the patient at Istanbul Medipol University Hospital to perform the procedure and for the publication of this report. A 33-year-old male patient (height 175 cm, weight 88 kg) had been diagnosed with MPS 3 years earlier. He was not known to have had any other systemic disease. For the last 6 months, he had suffered from severe pain in the left dorsal hemithorax from T2 to T7. His pain was unresponsive to medications; trigger point injections, given on five previous occasions, had not provided pain relief.

While the patient was in a sitting position, he had placed his left hand over his right shoulder by moving his hand over his chest. This movement caused lateral movement of his scapula, and the cavity was opened; therefore, we opted for RIB. Under aseptic conditions, a linear high-frequency probe was medially placed in the sagittal plane on the medial border of the scapula at the T5–T6 level. The trapezius muscle, rhomboid major muscle, intercostal muscle, ribs, and pleura were visualized. We inserted a 22-gauge needle into the fascial plane between the rhomboid major and intercostal muscles in a craniocaudal direction and injected 20 ml of 0.25% bupivacaine with 8 mg of dexamethasone into the fascial plane.

We used a visual analog scale (VAS) to evaluate the patient's pain before and after im-

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plementing the block. Before the procedure, arm movement had been limited by pain, and the VAS had been 6/10 during rest and 9/10 during movement. Thirty minutes after RIB, the patient was able to move his arm easily, and he felt no pain in his arm (when moving and at rest). We followed his progress for 4 weeks. For 2 weeks, we prescribed 25 mg of oral dextetoprofen and 8 mg of thiocolchicoside bid. He felt no pain, and no other analgesia was administered to him.

Although the literature on RIB is limited, several cases now provide evidence that this novel interfascial plane block may be an effective addition to the multimodal analgesic regimen for managing pain in MPS. Further studies may be needed to improve our understanding of the mechanisms and analgesic efficacy of RIB.

Conflicts of Interest

No potential conflict of interest relevant to this article was reported.

Author Contributions

Mürsel Ekinci (Conceptualization; Data curation; Investigation; Methodology; Writing – original draft)

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References

1. Elsharkawy H, Hamadnalla H, Altinpulluk EY, Gabriel RA. Rhomboid intercostal and serratus plane block: a case series. *Korean J Anesthesiol* 2020; 73: 550-6.
2. Borg-Stein J, Iaccarino MA. Myofascial pain syndrome treatments. *Phys Med Rehabil Clin N Am* 2014; 25: 357-74.
3. Elsharkawy H, Saifullah T, Kolli S, Drake R. Rhomboid intercostal block. *Anaesthesia* 2016; 71: 856-7.
4. Altıparmak B, Korkmaz Toker M, Uysal Aİ, Turan M, Gümüş Demirbilek S. The usage of single-shot ultrasound guided rhomboid intercostal block for analgesia after thoracotomy: clinical experience in two patients. *J Clin Anesth* 2019; 56: 98-9.
5. Yayık AM, Aydın ME, Tekin E, Ulas AB, Ahiskalioglu A. An alternative plane block for multiple rib fractures: Rhomboid Intercostal and Sub-Serratus block (RISS). *Am J Emerg Med* 2019; 37: 2263.e5-2263.e7.