

---

**LETTER TO THE EDITOR**

---

**ORPHAN MUSCLE OF SHOULDER PAIN; A CITE TO SUBCLAVIUS'  
MYOFASCIAL TRIGGER POINT**Mustafa Hüseyin Temel<sup>1\*</sup>, Fatih Bağcıer<sup>2</sup>**Dear Editor,**

Anterior shoulder pain can be challenging to identify. The differential diagnosis includes shoulder instability, bursitis of the surrounding tissue, rotator cuff injuries, and impingement syndromes. Sometimes there may be an overlap between diagnoses, producing complicated clinical results. This may cause a diagnosis delay and prolong the symptomatology.<sup>1</sup> Myofascial pain syndrome (MPS) is a musculoskeletal disorder that causes pain called trigger points (MTrPs), originating from localized tight areas in skeletal muscle and fascia. Treatment of MTrPs in the muscles can also contribute to the healing of existing pathology by reducing the restriction in the fascia and the tension in the tendon, breaking the vicious cycle of pain - spasm – pain.<sup>2</sup> Studies of pain in the anterior aspect of the shoulder and arm show that the subclavius muscle is neglected. David G Simons, one of the names who brought the concepts of MTrP and dry needling (DN) therapy to the literature,

suggested that the subclavius muscle should be evaluated and treated in the treatment of pain in the shoulder and forearm.<sup>3</sup> DN is a treatment that is increasingly gaining popularity and is also a micro-invasive and cost-effective approach with a low risk of side effects in the treatment of MTrP.<sup>4</sup> This article aims to discuss the importance of the MTrP of the subclavius muscle in the differential diagnosis of shoulder pain and the treatment of the MTrP of this muscle with blind and ultrasound-guided DN technique.

The subclavius muscle starts from the anteroinferior surface of the clavicle and attaches to the sternal junction of the first rib and its costal cartilage. It is responsible for the active stabilization of the clavicle in the shoulder and arm movements.<sup>5</sup> MTrP of the subclavius muscle can cause referred pain in the shoulder and anterior side of the arm, forearm, and radial side of the hand. Pain may also be felt in the dorsal and volar regions of

---

<sup>1</sup> Physical Medicine and Rehabilitation Clinic, Üsküdar State Hospital, İstanbul, Turkey

<sup>2</sup> Physical Medicine and Rehabilitation Clinic, Başakşehir Çam ve Sakura City Hospital, İstanbul, Turkey

\* **Mailing address of the corresponding author:** Mustafa Hüseyin Temel, Clinic of Physical Medicine and Rehabilitation, Üsküdar State Hospital, İstanbul, Turkey. Email: mhuseyintemel@gmail.com

the thumb, index finger, and middle finger (Figure 1a).

In the blind technique, a 0.25×13 mm sterile acupuncture needle is used. The patient should be positioned in a supine position. Needling is performed with the flat palpation technique. The needle should penetrate the skin at an angle of 45 degrees from the medial to the cranial-lateral direction (Figure 1b).

In the ultrasound-guided technique, the patient is positioned supine, and the probe is perpendicular to the muscle's long axis in the middle of the clavicle (Figure 1c). In transverse imaging, the needle is advanced with an out-of-plane approach at a 0-60 degrees angle until it reaches the muscle (Figure 1d). The needle should be navigated intramuscularly until the twitch response is obtained. Although there is no consensus on how often and how many sessions of dry

needling therapy should be applied in the literature, we recommend three sessions once a week for patient compliance.

### **Keywords**

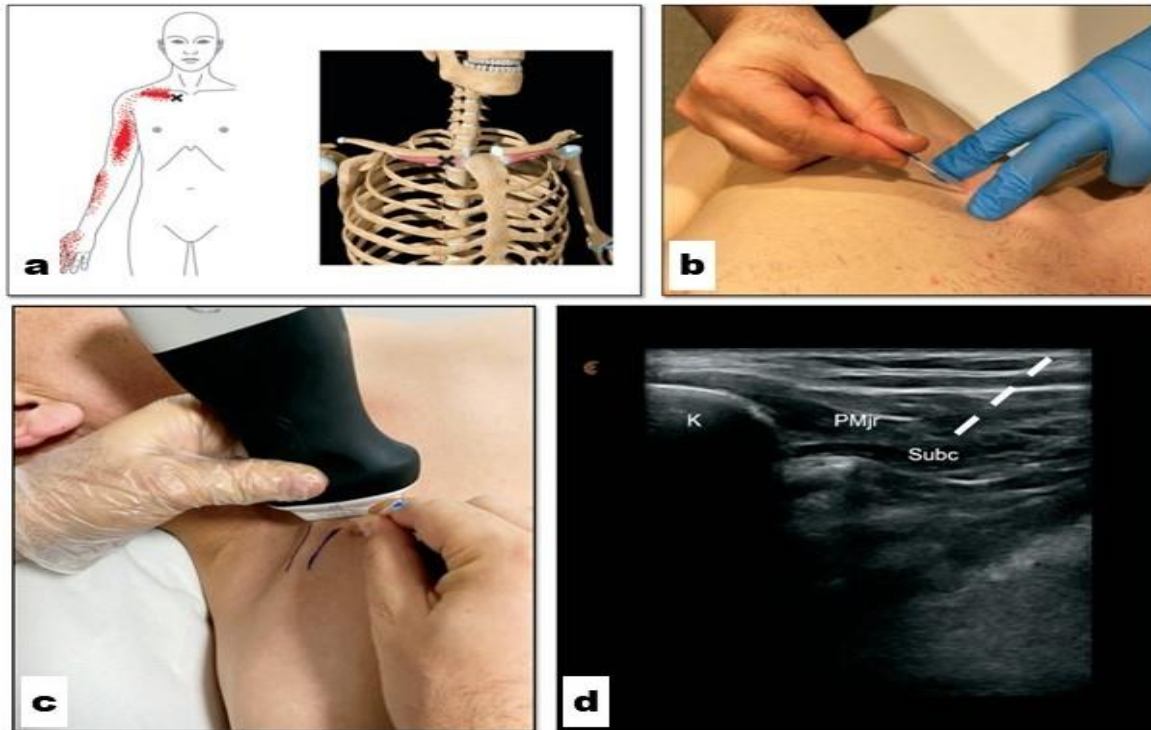
Trigger point; Subclavius Muscle; Shoulder Pain, Ultrasound; Dry Needling.

### ***Funding***

None.

### ***Conflict of interest***

The authors declare no conflict of interest in relation to the writing and/or publication of this article.



### Figure Legends

Figure 1. (a) Referred pain area of the trigger point of subclavius muscle, (b) dry needling for subclavius muscle with flat palpation technique, (c) probe placement for the subclavius muscle and insertion of the needle at an angle of 0-60 degrees with an out-of-plane approach, (d) transverse view of the subclavius muscle, and needle trace (K: clavicle, PMjr: Pectoralis Major, Subc: Subclavius, stripped line: needle trace).

## References

1. Bass E. Tendinopathy: why the difference between tendinitis and tendinosis matters. *International journal of therapeutic massage & bodywork*. 2012;5:14.
2. Bass E. Tendinopathy: why the difference between tendinitis and tendinosis matters. *Int J Ther Massage Bodywork*. 2012;5:14-17.
3. Travell JG, Simons DG. *Myofascial pain and dysfunction: the trigger point manual*: Lippincott Williams & Wilkins; 1992.
4. Rha D-w, Park G-Y, Kim Y-K, Kim MT, Lee SC. Comparison of the therapeutic effects of ultrasound-guided platelet-rich plasma injection and dry needling in rotator cuff disease: a randomized controlled trial. *Clinical rehabilitation*. 2013;27:113-122.
5. Crepaz-Eger U, Lambert S, Hörmann R, Knierzinger D, Brenner E, Hengg C. The anatomy and variation of the coracoid attachment of the subclavius muscle in humans. *Journal of Anatomy*. 2022;240:376-384.