

## Dry needling with blinded technique in pectoralis minor syndrome

Burak Tayyip Dede<sup>1</sup>, Mustafa Hüseyin Temel<sup>2</sup>, Fatih Bağcıer<sup>3</sup>

<sup>1</sup>Department of Physical Medicine and Rehabilitation, Istanbul Training and Research Hospital, Istanbul, Türkiye

<sup>2</sup>Department of Physical Medicine and Rehabilitation, Üsküdar State Hospital, Istanbul, Türkiye

<sup>3</sup>Department of Physical Medicine and Rehabilitation, Cam and Sakura City Hospital, Istanbul, Türkiye

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To the Editor;

We have carefully read your article titled “Pectoralis minor syndrome”.<sup>[1]</sup> It was impressive that you mentioned myofascial pain syndrome in etiological reasons in your article. In particular, trigger point of the pectoralis minor and scalene muscles may cause this problem.<sup>[2,3]</sup> Although the article described ultrasound-guided injection approach, they did not mention the blinded technique of dry needling treatment in this context.

Dry needling treatment is described as a “skilled intervention” in the literature. The reason for that is very clear: without using any drug, regenerative feature, rarely side effects, cost effective and favorable results. In the current literature, we use this treatment not only for muscle problems, but also tendon pathologies, spasticity management and orthopedic rehabilitation. For myofascial pain syndrome, it should be kept in mind that every skeletal muscle of our body is special and has ‘3P rules (position, palpation, and penetration angle).<sup>[4]</sup> Thanks to this perspective, possible complications can be minimized. Although ultrasound-guided dry needling procedures are safer, as a physiatrist, blinded technique needs to be recognized, as well. For pectoralis minor and scalene muscles, there is an easy procedure to apply.<sup>[5]</sup>

### Pectoralis minor

**Rule 1. Palpation:** For the pectoralis minor muscle, pincer palpation technique is used by taking the muscle between the first and second fingers.

**Rule 2. Position:** For needling the muscle properly, the position where each muscle is suitable should be selected. For the pectoralis minor muscle, while the patient lies in the supine position, the shoulder is in internal rotation, and the hand on the painful side is brought under the lumbar cavity.

**Rule 3. Penetration angle:** After determining the myofascial trigger point (MTP), the pectoralis minor muscle is held between the first and second fingers and the muscle is brought to a superficial state. The needle is directed into the pectoralis minor muscle in the craniomedial direction (Figure 1).

### Scalene anterior muscle

**Rule 1. Palpation:** For the scalene muscle, flat palpation technique is used by taking the muscle between the second and third fingers.

**Rule 2. Position:** For needling the muscle properly, the position where each muscle is suitable should be selected. For the scalene muscle, while the patient lies in the lateral position and the neck is brought into slight lateral flexion to the painless side.

**Corresponding author:** Burak Tayyip Dede, MD. İstanbul Eğitim ve Araştırma Hastanesi Fiziksel Tıp ve Rehabilitasyon Kliniği, 34098 Fatih, İstanbul, Türkiye

E-mail: drbrk22.94@gmail.com

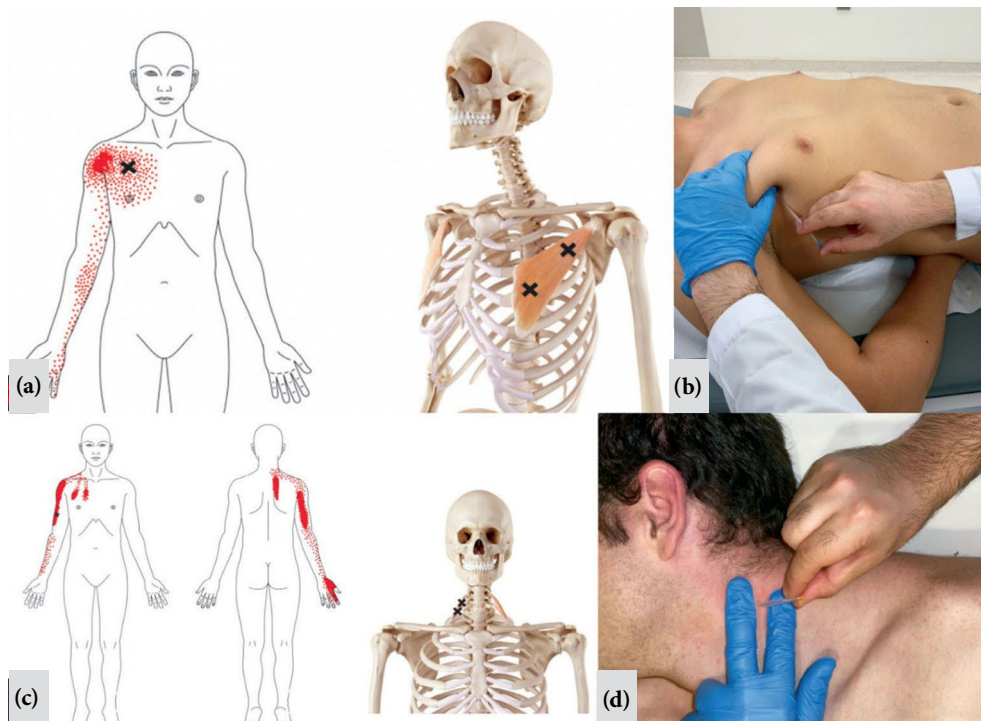
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**Figure 1.** (a) Pain spread of MTP in the pectoralis minor muscle. (b) Dry needling application technique should be done with pincer palpation method. (c) Pain spread of MTP in the scalene muscle. (d) Dry needling application technique should be done with flat palpation method. MTP: Myofascial trigger point.

**Rule 3. Penetration angle:** After determining the MTP, the scalene muscle is held between the second and third fingers. The muscle is approached lateral to the clavicular head of the sternocleidomastoid muscle. The needle is directed perpendicular to the muscle between two fingers and advanced 10 to 15 mm, until a local twitch response is obtained (Figure 1).

In conclusion, invasive procedures, particularly to the pectoral muscles and scalene muscle, have a risk of injury to the axillary artery and vein, jugular vein and brachial plexus, as well as pneumothorax. Ultrasound is an effective imaging method to avoid these complications. However, it is possible to avoid undesired complications with the 3P rule, which is a simple method we use in blinding technique.

**Data Sharing Statement:** The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## REFERENCES

1. Aktaş İ, Ünlü Özkan F. Pectoralis minor syndrome. Turk J Phys Med Rehabil 2022;68:447-55. doi: 10.5606/tftrd.2023.12037.
2. Simons DG. Symptomatology and clinical pathophysiology of myofascial pain. Schmerz 1991;5(Supplement 1):S29-37. doi: 10.1007/BF02530068.
3. Hong CZ, Simons DG. Pathophysiologic and electrophysiologic mechanisms of myofascial trigger points. Arch Phys Med Rehabil 1998;79:863-72. doi: 10.1016/s0003-9993(98)90371-9.
4. Bağcier F, Yurdakul O, Ozduran E. Three simple rules in pectoral muscle's trigger point treatment, which may be a cause of chest pain: Position, palpation, and perpendicular needling. J Am Board Fam Med 2020;33:1031. doi: 10.3122/jabfm.2020.06.200342.
5. Vas L, Pai R. Ultrasound-guided dry needling as a treatment for postmastectomy pain syndrome - a case series of twenty patients. Indian J Palliat Care 2019;25:93-102. doi: 10.4103/IJPC.IJPC\_24\_18.