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## Drug-free chronic musculoskeletal pain management: The Effectiveness of Ultrasound guided Dry needling.

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## **Background and Aims:**

Numerous studies show that chronic nontraumatic neck and shoulder pain is related to the presence of Myofascial Trigger Points (MTrPs). Active MTrPs cause clinical symptoms, and their local and referred pain are responsible for at least part of the patient's symptoms. These trigger points can cause pain, restricted range of motion, and substantial motor dysfunction. Ultrasounds guidance is an useful tool to identify myofascial trigger points with visualization of local twitch response (LTR) and to identify the muscular structures to treat. Methods:

A 50- years old hairdresser woman came to our observation complaining chronic left back shoulder pain due to her job, with limitation and pain in abduction and elevation movements. She referred a NRS score of 6 at rest raising 8 with movement, QOL Index=6, MGPQ= 10 (S6A2V1M1). She refused to take oral drugs. We treated Erector Spinae, Rhomboid Minor and Major, Levator Scapulae, Sovraspinatus, Infraspinatus and Upper Trapezius muscles with ultrasound- guided dry needling once a week for three times. Results:

We observed a reduction of local twitch response and NRS score, decreasing down to 2-3, and an improvement of range of motion, QOL Index=9, MGPQ=5 (S2A1V1M1) with great satisfaction of the patient.

**Conclusions:** 

Ultrasound- guided dry needling treatment could be a safe and effective technique in the management of chronic muscle nontraumatic pain. The ultrasound visualization allows to treat even deeper muscles reducing the risk of damaging nearest structures.



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