

# DRY NEEDLING IN THE MANAGEMENT OF PATIENTS MEETING CLINICAL DIAGNOSTIC CRITERIA FOR SUBACROMIAL PAIN SYNDROME: A CASE SERIES

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## ABSTRACT

**Background:** Physical therapy interventions of exercise and manual therapy provide benefit in treatment of subacromial pain syndrome (SAPS). Dry needling is an emerging technique for treating musculoskeletal conditions; however, conflicting investigative evidence exists regarding the use of dry needling for SAPS.

**Purpose:** The purpose of this case series was to describe the use of dry needling, in conjunction with exercise, as a management strategy for patients meeting clinical diagnostic criteria of SAPS and to observe the short- and intermediate-term effects of dry needling with therapeutic exercise in this population. A secondary purpose was to describe a framework of clinical reasoning to guide the pragmatic application of dry needling and exercise in clinical practice.

**Study Design:** Case series.

**Methods:** Twenty-five patients met criteria for SAPS and provided informed consent. Patients received examination-based dry needling for the first two visits with exercises added beginning at the third treatment session to help distinguish treatment effects. The primary outcome measure used in this study was the Quick Disabilities of the Arm, Shoulder, and Hand (Q-DASH) survey assessed at their third clinical visit, at four-weeks after starting intervention and again at a three-month follow up visit.

**Results:** On the Q-DASH survey 21 of 24 patients reported improvement at the third visit (range 4.5 to 38.6 points) and 19 of 22 reported improvement at the 3-month follow-up (range 0.1-54.5 points) relative to baseline. Sixteen of 24 patients at the third visit and 19 of 22 patients at the 3-month follow-up reported Global Rating of Changes scores of +3 or greater.

**Conclusion:** This case series provides insight to the observed short- and intermediate-term effects of dry needling combined with exercise for SAPS. Additionally, it discusses the framework of clinical reasoning when applying this intervention. The results are encouraging for dry needling as an adjunct to exercise for treating patients with SAPS.

**Level of Evidence:** Therapy, level 4

**Key Words:** Movement system, shoulder, trigger point, subacromial pain syndrome,

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