

CASE REPORT

SHORT-TERM EFFECTS OF INSTRUMENT-ASSISTED SOFT TISSUE MOBILIZATION ON PAIN FREE RANGE OF MOTION IN A WEIGHTLIFTER WITH SUBACROMIAL PAIN SYNDROME

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ABSTRACT

Background and Purpose: While there is limited evidence supporting the use of soft tissue mobilization techniques for Subacromial Pain Syndrome (SAPS), synonymous with subacromial impingement syndrome, previous studies have reported successful outcomes using soft tissue mobilization as a treatment technique. The purpose of this case report is to document the results of Instrument-Assisted Soft Tissue Mobilization (IASTM) for the treatment of SAPS.

Case Description: Diagnosis was reached based on the subject's history, tenderness to palpation, and four out of five positive tests in the diagnostic cluster. Treatment consisted of three visits where the IASTM technique was applied to the pectoral muscles as well as periscapular musculature followed by retesting pain-free shoulder flexion active range of motion (AROM) and Numerical Pain Rating Scale (NPRS) during active shoulder flexion. Scapulothoracic mobilization and stretching were performed after AROM measurement.

Outcomes: The subject reported an NPRS of 0/10 and demonstrated improvements in pain free flexion AROM in each of the three treatment sessions post-IASTM: 85° to 181°, 110° to 171°, and 163° to 174° with some carryover in pain reduction and pain free AROM to the next treatment. Through three treatments, DASH score improved by 17.34%, Penn Shoulder Score improved 29%, worst NPRS decreased from 4/10 to 0/10, and a GROC score of 6.

Discussion: IASTM may have a beneficial acute effect on pain free shoulder flexion. In conjunction with scapulothoracic mobilizations and stretching, IASTM may improve function, decrease pain, and improve patient satisfaction. While this technique will not ameliorate the underlying pathomechanics contributing to SAPS, it may serve as a valuable tool to restore ROM and decrease pain allowing the patient to reap the full benefits of a multi-modal treatment approach.

Level of Evidence: 5

Keywords: instrument assisted soft tissue mobilization, shoulder complex, subacromial impingement syndrome, subacromial pain syndrome

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