



Scapular Mobilization Combined with Thoracic Manipulation for Treating Subacromial Impingement Syndrome in an Elderly Female: A Case Report

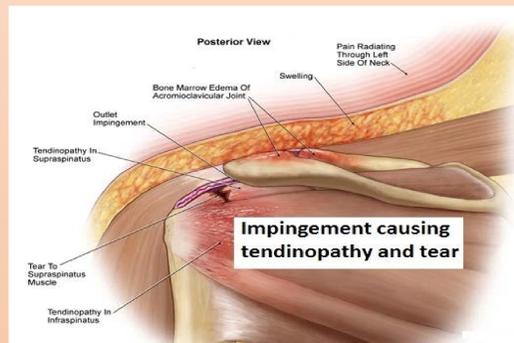
Tyler Alford, SPT & David Kempfert, PT, DPT

BACKGROUND & PURPOSE:

Subacromial impingement syndrome (SAIS) accounts for almost 50% of all shoulder pain and is one of the primary complaints seen each year by primary care physicians.

Second, in prevalence only to chronic low back pain, shoulder pain has been shown to affect nearly 16%-21% of the population.

Purpose: To describe the treatment of a patient with Subacromial Impingement Syndrome (SAIS) pathology utilizing a combination of manual therapy techniques at the scapulothoracic joint and the upper thoracic spine along with more traditional scapular stabilization exercises.



CASE DESCRIPTION:

The patient is a 72-year old female suffered from subacromial impingement syndrome with concomitant RTC tendinopathy and glenohumeral (GH) osteoarthritis (OA) in the L UE.

Chief Complaint: Pain in the superior aspect of the left shoulder beginning four months' prior while performing cleaning tasks around the house.

Aggravating Factors: Lifting grocery bags, quadruped baseboard cleaning, sweeping floors, reaching for objects in high cabinets.

Outcome Measures:

- QuickDASH (Initial Evaluation): 38.64
- Visual Analog Scale (VAS): At the time of initial evaluation, the patient complained of constant 4/10 generalized, aching pain.

PMH: Patient did not have any significant medical history that would contraindicate manual therapy intervention.

METHODS:

| Interventions | Tx Directions | Tx Duration | Tx Rationale |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------|
| Scapular Cephalic/Caudal Glide | Operator cups inferior angle of the scapula and superior aspect near the spine of the scapula. Force is applied in cephalic and caudal directions. | 5-7 min, 2x/week | Increase scapular mobility |
| Scapular Upward/Downward Rotation | Operators hands are in the same position as technique above. Force is applied to rotate scapula either upward or downward. | 5-7 min, 2x/week | Increase Scapular mobility |
| Scapular Distraction | Fingers of operator placed under the medial border of the scapula. The scapula is lifted away from the thoracic wall in a lateral direction. | 5-7 min, 2x/week | Increase scapular mobility |
| Lateral Distraction of Humeral Head | Operator's cephalic hand stabilizes lateral/distal aspect left humerus. Caudal hand placed proximal/medial on humerus and moves in lateral direction away from the thorax. | 5-7 min, 2x/week | All motions at GH joint |
| Upper Thoracic P/A Manipulation (If indicated) | Bilateral Transverse Process contact of still segment. Arms are crossed and a skin lock is applied. A high-velocity P/A force is applied in time with patient breathing if indicated. | Thrust: As needed Non-Thrust: 5-7 min (oscillations), 2x/week | Increase T/S mobility |

RESULTS:

| | Initial Evaluation (9-14-17) | Discharge (10-10-17) |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Structural Inspection | - Forward Head/Rounded Shoulders. Slumped Posture with sitting. | - More Upright posture with standing/sitting |
| Visual Analog Scale (pain scale) | - 4/10 – current - 6/10 – worst (Household activities) | - 0/10 – at rest - 0/10 – (Household Chores) |
| ROM (Active/Passive) | - Flex: L: 162/165 R:165/170 - ABD: L: 155/165 R: 155/170 - ER: L: 90/90 R: 90/90 - IR (Passive L/R): 65/71 | - Flex: L: 165/165 R:166/171 - ABD: L: 167/169 R: 155/170 - ER: L: 90/90 R: 90/90 - IR (Passive L/R): 67/70 |
| Accessory Mobility (Left UE) (All Right UE accessory mobility were found to be 3/6 - Normal) | - Scapulothoracic Joint: Cephalic/Caudal Glides, Upward/Downward Rot, Scapular Distraction – (2/6) - GH Joint: A/P, P/A, Inferior Glide: (2/6) - PIVM Upper Thoracic Spine: P/A: (2/6) at T1-T4. - PIVM in the cervical and mid-thoracic spine: normal and unremarkable. (3/6) | - Scapulothoracic Joint: Cephalic/Caudal Glides, Upward/Downward Rot, Scapular Distraction: (3/6) - GH Joint: A/P, P/A, Inferior Glide: (3/6) - PIVM Upper Thoracic Spine: P/A: (3/6) at T1-T4. |
| MLT | - Tight Left Latissimus Dorsi - Tight Left Pectoralis Major - Tight Left Pectoralis Minor | - Tight Left Latissimus Dorsi - Normal Left Pectoralis Major and Minor length |
| MMT | - Serratus Anterior: 4-/5 - Middle Trap: 4-/5 - Lower Trap: 3+/5 | - Serratus Anterior: 4/5 - Middle Trap: 4/5 - Lower Trap: 4/5 |
| QuickDASH (Raw Score) | - 38.64 | - 8.09 |
| Palpation | - Increased tone in Upper Trapezius Bilaterally | - Normalized tone in Upper Trapezius Bilaterally |
| Special Tests | - Positive Neer Impingement - Positive Empty Can - Positive Hawkins-Kennedy | - Negative Neer Impingement - Positive Empty Can - Positive Hawkins-Kennedy |

CONCLUSION:

In this case, the patient presented with SAIS and concomitant RTC tendinopathy that was effectively treated by manual physical therapy intervention provided in a systematic fashion aimed at the upper thoracic and scapular-thoracic joints.

Previous Literature: Numerous randomized controlled trials have indicated that joint mobilization in addition to stretching, strengthening, and neuromuscular re-education is beneficial for patients with certain shoulder pathologies, including SAIS.

Previous studies have determined that joint mobilization of the upper thoracic spine and scapulothoracic joint have proven to be effective separately, but the author has found little research combining the different regions for the same patient.

CASE RELEVANCE:

This case report demonstrated how this systematic manual therapy approach was very effective in relieving shoulder pain, decreasing abnormal compensatory motions, and improving overall functional ability allowing the patient to attain goals that were set prior to treatment.

REFERENCES:



View PDF