

SERRATUS POSTERIOR SUPERIOR SYNDROME

The *Serratus Posterior Superior Syndrome* has its basic origin from the serratus posterior superior trigger point, with its characteristic referred pain pattern. The patient generally complains of a deep aching pain that encompasses the area occupied by the upper, middle, and lower trapezius muscles. Occasionally the main complaint will be one of a stabbing pain, just medial and superior to the inferior angle of the scapula on the involved side, just lateral to the spine. This syndrome is unusual in that the scapula on the involved side must be abducted to both determine and treat the offending tissues involved.

To abduct the scapula, the patient need only clasp the opposite elbow or the arm of the chair on the uninvolved side with the involved side's hand. Once the scapula is abducted, the site of the trigger point, with its characteristic inflamed zone (if the condition is chronic), may be determined through trigger point palpation or DSR survey, as illustrated below.

The cause of this syndrome is generally unknown, but it is thought that it might be precipitated by an external blow to or excessive strain of the serratus posterior superior muscle. In the latter case, it is thought that twisting during sleep might be the most likely root cause.



The high skin resistance patterns commonly associated with the Serratus Posterior Superior Syndrome (left scapula abducted; arms crossed in front)

Treatment

Treatment of the *Serratus Posterior Superior Syndrome* centers on breaking any adhesions and eliminating any inflammation that is present. During treatment, the patient must keep the involved scapula abducted. This may be accomplished by having the patient keep the involved arm on a pillow placed in the patient's lap, with the involved shoulder moderately adducted and flexed to approximately 45°.

Application:

- Place a negative electrode over the inflamed zone and a positive electrode over the upper trapezius muscle. Preset an electrical stimulation unit to deliver a visible contraction, at 7 Hz, and then stimulate for 10 minutes.
- Next, set the unit to deliver a medium frequency current, with a duty cycle of 10-seconds on and 10-seconds off, sufficient to produce a near tetanic contraction of the involved muscles. Stimulate for 10 minutes.
- Manipulate the soft tissues in and around the serratus posterior superior to break any adhesions that are present.
- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.5 W/cm². Ultrasound the inflamed zone, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes.

The following treatment forms have also been effective.

Variation:

- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.8 W/cm². Ultrasound the inflamed zone, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes. This procedure is designed to soften the adhesions that may be present.
- Manipulate the tissues in and around the inflamed zone to eliminate any adhesions that may be present.
- Twenty minutes after the first ultrasound, preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.5 W/cm². Ultrasound the inflamed zone utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes. This is performed to "cool off" the manipulated zone by effectively halting the production of prostaglandins by the stressed tissues.

Variation:

- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.8 W/cm². Ultrasound the inflamed zone, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes. This procedure is designed to soften the adhesions that may be present.
- Manipulate the tissues in and around the inflamed zone to eliminate any adhesions that may be present.
- Apply cold laser (with or without simultaneous electrical stimulation provided by the laser applicator) to the inflamed zone for approximately six minutes. This is performed to "cool off" the manipulated zone by effectively halting the production of prostaglandins (or facilitating enzyme destruction of **all** inflammatory being produced) by the stressed tissues.

If the patient is somehow able to avoid further trauma to the serratus posterior superior muscle, successful treatment is usually rapid, requiring between one and three sessions. Since no specific cause of this syndrome has been postulated, no specific recommendations as to how to prevent further injury can be made.

Trigger Points

The following trigger point formations may, singly or in combination, imitate or contribute to the pain associated with the *Serratus Posterior Superior Syndrome*: Posterior cervical group, Levator scapulae, Scalenus, Infraspinatus, Infraspinatus (abnormal), Medial teres major, Lateral teres major, Teres minor, Lower splenius cervicis, Upper trapezius [B], Middle trapezius [A], Middle trapezius [B], Lower trapezius [A], Lower trapezius [B], Cervical multifidus (C4-C5), Supraspinatus (muscle), Supraspinatus (ten-don), Latissimus dorsi (upper portion), Serratus posterior superior, Serratus anterior, Subscapularis, Posterior deltoid, Pectoralis major (sternal portion), Rhomboids, Multifidus (T4-T5), Iliocostalis thoracis (T6), Iliocostalis thoracis (T11), and Upper rectus abdominis.