

RADIAL TRUNK SYNDROME

The *Radial Trunk Syndrome* was arbitrarily named for its clinically observed effects on inflammation syndromes occurring within the radial nerve distribution, including the *radial channel*, *extensor tunnel*, and *Carpal Tunnel Syndromes*. In fact, this syndrome doesn't seem to occur alone, but as a secondary syndrome stemming from the *Teres Major Syndrome* or as a causative or complicating syndrome for the syndromes just mentioned. There seems to be no obvious pain symptomology that stems directly from it, other than a diffuse indistinct pattern of discomfort in the elbow, forearm, and medial aspects of the hand. Some fluid swelling in the inflamed area has been noted, as well as a general "hard" turgidity of the tissues in the same area, apparently stemming from adhesion build-up. The DSR survey demonstrates a distinctive zone of relatively high skin resistance over the middle and lateral triceps heads.

Treatment

Treatment of the *Radial Trunk Syndrome* requires eliminating any inflammation and adhesions that are present, as well as increasing blood circulation in the affected tissues.

Application:

- Place a negative electrode over the inflamed zone and a positive electrode over any distally occurring inflamed zone in the same extremity or over the lower trapezius muscle on the same side, if no other inflamed zone is present. Preset an electrical stimulation unit to deliver a visible contraction, at 7 Hz. Stimulate for a 10 minutes. Then, 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 inflamed zone to eliminate any adhesions that may be 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.
- Apply mechanical vibration, delivered at 60 to 120 Hz, to the origin of the triceps muscle, for two minutes. Apply the vibration at a relatively high but tolerably comfortable level for the patient. This is performed to increase capillary circulation in the involved tissues.



The high skin resistance pattern commonly associated with the Radial Trunk Syndrome

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 6 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.
- Apply mechanical vibration, delivered at 60 to 120 Hz, to the origin of the triceps muscle, for two minutes. Apply the vibration at a relatively high but tolerably comfortable level for the patient. This is performed to increase capillary circulation in the involved tissues.

Generally, without a more proximally occurring inflammation (as in the *Teres Major Syndrome*), successful treatment occurs almost immediately, requiring just one or two sessions. If a more proximal inflammation exists, it will have to be also successfully treated before the *Radial Trunk Syndrome* can be made to disappear.

Trigger Points

The following trigger point formations may, singly or in combination, imitate or contribute to the pain accompanying a *Radial Trunk Syndrome*: Scalenus, Scalenus (minimus), Infraspinatus, Medial teres major, Lateral teres major, Coracobrachialis, Supraspinatus (muscle), Latissimus dorsi (upper portion), Serratus posterior superior, Serratus anterior, Subclavius, Subscapularis, Posterior deltoid, Anterior deltoid, Medial triceps (lateral fibers), Triceps (long head), Distal medial triceps, Anconeus, Supinator, Extensor carpi radialis longus, Fourth finger extensor, Brachioradialis, Pronator teres, and Extensor carpi radialis longus.