When Modalities are not an Option

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Ann is a 74-year-old female who presented in our office with severe muscle spasms in the posterior left shoulder and paraspinal region. The muscle spasm started 10 days earlier after having a pacemaker implanted in her left anterior subclavian region. The cardiologist who performed Ann's surgery instructed her not to move the left shoulder or arm above shoulder height. She also was not to push, pull, or lift for two weeks until the leads from the pacemaker were secured and the surgery site had healed.

The doctor's only treatment for the muscle spasms was pain killers and muscle relaxant medication. This did not provide any lasting relief to Ann.

We had seen Ann several years earlier after she had a knee replacement. We helped her with post-op recovery and rehab. This is why she returned to our clinic following her pacemaker surgery.

We started by having Ann fill out a thorough health history. We then conducted a full evaluation using **A.R.T.S.** This stands for **A**symmetry, **R**ange of Motion, **T**issue Tenderness, and **S**pecial Tests.

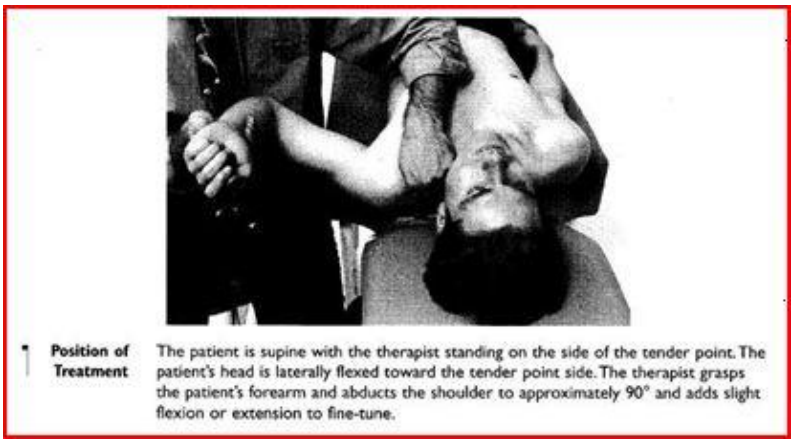
The asymmetry in Ann's posture on evaluation revealed a forward head posture and an anterior elevated left shoulder. The range of motion in her left shoulder was limited to 45 percent of normal flexion and 30 percent of normal abduction with an empty end-feel. Her range of motion was very antalgic. Antalgic ROM means she was afraid to move her shoulder because it would cause greater spasm and pain if she moved it in excess. She was unable to put her shirt on over her head, wash her hair, or use her left arm to secure her seat belt.

Tissue tenderness tests found tender points in Ann's left trapezius and left pectoralis minor. Her trapezius tender point was an 8 on a scale of 0–10—10 being extremely tender and painful, and 0 being not painful at all. Her pectoralis minor pain was a 7/10. When we evaluated for tender points on her posterior shoulder, where she was complaining of pain, the area of greatest tenderness was a 5/10 in the left rhomboid region. She was surprised that the muscles in the back of her shoulder were not more tender to the touch when we evaluated her.

We did not need to perform any special tests with Ann after discovering the muscle spasms and tender points in her shoulder. The rest of her evaluation was unremarkable.

Since Ann was only 10 days post-op from having a pacemaker implanted, we were not able to do a lot of active therapies that could possibly disturb the leads to the pacemaker. Electrical stimulation also was contraindicated with her new pacemaker. A passive, indirect technique called Muscle Balancing or Positional Release Therapy was therefore the best approach to use to relieve Ann's muscle spasms. A passive therapy means the patient does not initiate the movement during the treatment. An indirect technique is one that takes the body into a position of comfort, away from the barrier or pain.

Applying Muscle Balancing protocols, we treated the most severe tender point first by putting Ann in the position of comfort. (See example below.)

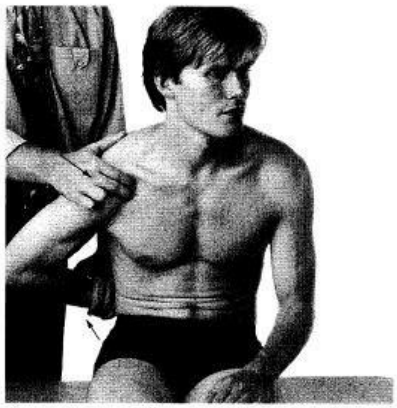


Position of Treatment The patient is supine with the therapist standing on the side of the tender point. The patient's head is laterally flexed toward the tender point side. The therapist grasps the patient's forearm and abducts the shoulder to approximately 90° and adds slight flexion or extension to fine-tune.

Reference: D'Ambrogio, Kerry J. 1997. *Positional Release Therapy*, 106.

After this primary tender point was treated for approximately 90 seconds, the point was re-assessed. The pain was 0/10 after just one treatment. We went on to re-assess the pectoralis minor tender point and found that it had subsided to a 5/10 tenderness. By identifying and treating the primary tender point first, the secondary point started to subside.

We treated the pectoralis minor tender point with an indirect procedure. (See example below.) We were able to treat lateral to Ann's pacemaker to perform this treatment, and did not disturb the surgery site.



Position of Treatment The patient is sitting in front of the therapist. The therapist grasps the forearm and pulls it behind the patient in a hammerlock position in order to extend and internally rotate the shoulder. The therapist then protracts the shoulder by pushing the elbow or shoulder forward, abducting slightly and pushing anteriorly on the involved shoulder.

Reference: D'Ambrogio, Kerry J. 1997. *Positional Release Therapy*, 116.

Ann's pain level on this tender point went from 5/10 to 0/10 in about two minutes. When we re-assessed Ann's posterior shoulder, her spasms and pain had dissipated completely without having to treat this area. Using Muscle Balancing we stopped the inappropriate proprioceptor activity and restored her neuromuscular system to homeostasis.

When modality therapies are not an option for treating muscle spasms, manual therapy techniques such as Muscle Balancing/Positional Release Therapy are a very effective protocol to use in the clinic.