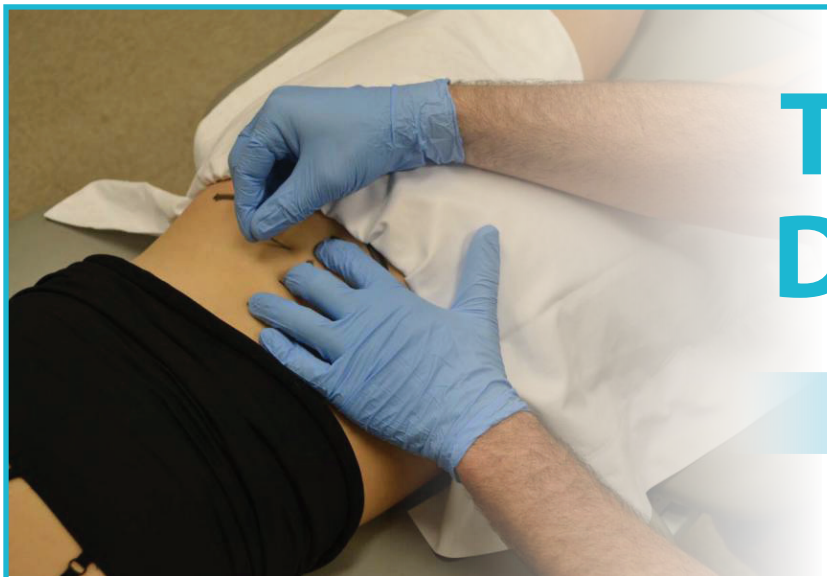

Trigger Point Dry Needling

PIER DOCUMENT

PROBLEM:

Trigger points are described as "hyperirritable spots of skeletal muscle associated with hypersensitive palpable nodules in a taut band[3]. These points are commonly found in orthopedic conditions including headaches, neck and back pain, elbow pain, jaw pain and osteoarthritis.

These nodules are thought to develop due to altered electrical activity at the junction between nerves and muscle. These changes are sustained by changes in acetylcholine action, removal, and receptor activity. Authors also note altered biochemical markers at the site of the trigger point including pH changes and markers involved in the nociceptive process.

Trigger points are strong sources of peripheral nociceptive input into the central nervous system which lead to acute and chronic changes including hyperexcitability and temporal summation[1].

These painful areas can act as a primary hyperalgesic input initiating or perpetuating central sensitization[2].

Myofascial Pain Syndrome, recognized by the American Pain Society, is hallmarked by the presence of trigger points in skeletal muscle. Authors have noted this is the most commonly overlooked diagnosis in chronic pain[4].

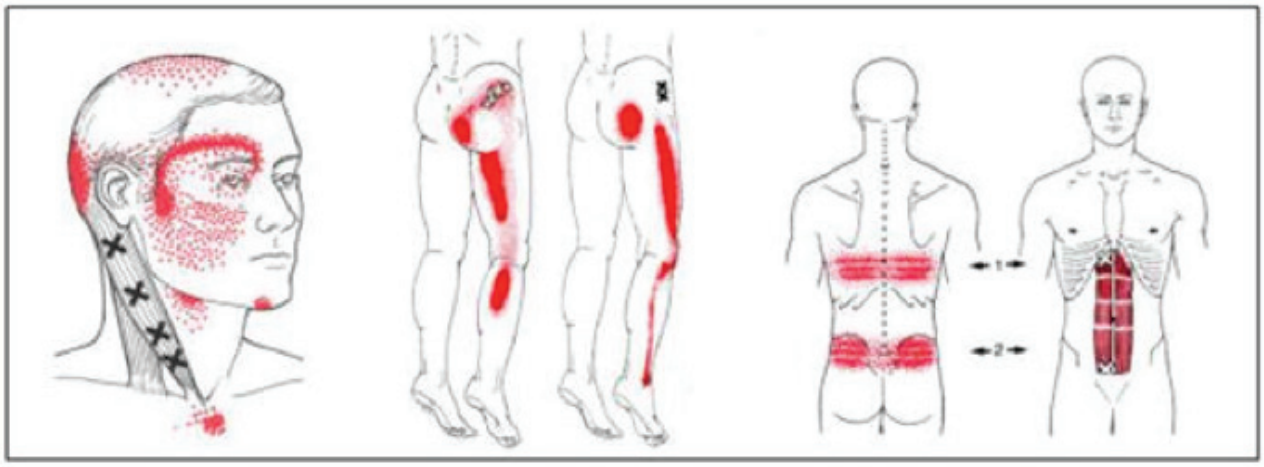

Figure 5: Example trigger point and referral diagrams. An 'X' represents the location of a trigger point. The red area represents the referred pain pattern.

Continued on back...

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INTERVENTIONS:

Trigger point dry needling is commonly utilized by Physical Therapists around the world and is within the scope of practice of Colorado PTs under state law.

Dry needling involves the insertion of a fine, sterile solid filament needle into a taut band of muscle fibers. The exact mechanism of action is currently being studied but the therapeutic effects including decreased pain and improved function is thought to occur through mechanical, neurophysiological, and biochemical effects[5].

Dry needling is always used in conjunction with other Physical Therapy interventions including manual therapy, exercise prescription, and education.

EVIDENCE:

Systematic reviews of the literature support the use of dry needling for the management of myofascial pain[5,6].

Individual studies have supported the utilization of trigger point dry needling in low back pain, carpal tunnel syndrome, plantar fasciitis, knee osteoarthritis, shoulder pain, neck pain, and headaches[5].

Recent articles report the benefits of dry needling include immediate reduction or relief of acute and chronic muscle pain, reduction in muscle tension, and improvement in muscle function.

REFER:

Myofascial Pain Syndrome is diagnosed by the following criteria[3]

1. The presence of a taut band
2. An exquisitely tender spot on the taut band
3. The patient's recognition of their pain complaint through palpation
4. Painful limit to muscle length in the palpated tissue

Patient's with the presence of myofascial pain syndrome and impaired daily and recreational activities should be referred to Physical Therapy to evaluate the appropriateness of dry needling for their condition.

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