Needling Trigger Points

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Needling Trigger Points

- Needling (dry needling or trigger point injection) is a skilled intervention using a thin filiform or hypodermic needle to penetrate the skin and subcutaneous tissues to stimulate fascial tissue, muscle, and myofascial trigger points to manage neuromuscular disorders

adapted from APTA 2013
Needling Trigger Points

- Needling (dry needling or trigger point injection) is used to diminish persistent peripheral nociceptive input, to restore function, leading to improved activity

adapted from APTA 2013
Needling Trigger Points

- Needling (dry needling or trigger point injection) by itself is seldom sufficient to restore normal function, but is part of a comprehensive program of rehabilitation and correction of underlying mechanical, medical, and functional disorders.
Trigger Point Dry Needling
An evidenced and clinical-based approach

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Osler practiced dry needling in the 1870s

"Observe, record, tabulate, communicate. Use your five senses. Learn to see, learn to hear, learn to feel, learn to smell, and know that by practice alone you can become expert."

William Osler
Sir William Osler and Dry Needling

Mr. Redpath (a wealthy board member of Montreal General Hospital arrived exhausted after mounting the stairs. They proceeded to treat him with acupuncture (for Lumbago), thrusting a long needle into the muscles of the back. At each jab the old gentleman ripped out a string of oaths. He hobbled out no better for his pain. No millions for McGill.

Courtesy of Dr. Robert Woody
Sir William Osler textbook of medicine 1892: For lumbago...acupuncture is the most efficient treatment. Needles 3-4 inches in length (ordinary bonnet needles, sterilized, will do), are thrust into the lumbar muscles at the seat of the pain.

courtesy of Dr. Robert Woody
Why Needle?

- Diagnostic
- Treatment
  - to relieve pain
  - to facilitate physical therapy and rehabilitation
What is needled: The most firm or hardest part of the taut band, that is usually also the most tender part.
- How do you know you are there? The local twitch response!

Hong, C. Z.; Torigoe, Y. in: Journal of Musculoskeletal Pain, 2(2), 1994, 17-43
When are you done? When there are no more twitch responses.

The trigger point region can be a hornet's nest of trigger points.
Lidocaine injections of trigger points produced significant pain reduction
Deep dry needling is more effective than superficial needling.
Deep dry needling reduced pain, improved sleep, and improved mobility
Inactivation of trigger points in the neck and shoulder muscles that referred pain to headache regions reduced local and referred pain, decreased headache days and reduced headache intensity.
Efficacy of myofascial trigger point dry needling in the prevention of pain after total knee arthroplasty: a randomized, double-blinded, placebo-controlled trial. Mayoral O1, Salvat I, Martín MT, Martín S, Santiago J, Cotarelo J, Rodríguez C.
There was no significant difference between [dry needling] and lidocaine 0.5%
Dry needling compared to sham needling reduced pain (VAS) and improved SF 36 score
Comparison of injection methods in myofascial pain syndrome: a randomized controlled trial. Ay S, Evcik D, Tur BS.

Comparison of Dry Needling with Lidocaine injection of Trigger Points
Outcome measures: VAS, cervical ROM, depression.

Significant improvement in pain, ROM, and depression in both groups
Rules of Needling
If you do not know where you are going, don't go
PLEASE DO NOT GO BEYOND THIS POINT

INTERDICATION DE DÉPASSE

CE PANNEAU

BITTE ABEND UND DEN DINGEN
Universal Precautions:
Gloves
Nitrile, not latex
CAUTION

THIS SIGN HAS SHARP EDGES

DO NOT TOUCH THE EDGES OF THIS SIGN

ALSO, THE BRIDGE IS OUT AHEAD
HIKERS and BIKERS
Move to the side of the road when a vehicle approaches
If you do not know where you are going, don’t go
Patients are treated in supine, prone, or side-lying positions.
Needling: For all Muscles

- Identify landmarks
- Prepare the needle or injection material
- Recheck landmarks every time
Injection Materials

- lidocaine 0.25% (4 cc’s of lidocaine 2% in 30 cc of normal saline)
- Botox
- Nothing else
Medical Waste Disposal
If you do not know where you are going, don’t go.
Complications

- Allergy to nickel, to local anesthetic (epinephrine)
- Local soreness
- Bleeding
- Nerve injury
- Syncope
Implants
Pneumothorax
Pregnancy is not a complication
If you do not know where you are going, don’t go