Clinical Position Statement

Dry Needling

Effective: October 2017
Next Review: August 2019

Note: Although the services described in this position statement are not subject to routine medical necessity review, utilization may be audited.

CLINICAL POSITION STATEMENT

The current evidence has not established that dry needling in combination with other treatments or alone for any condition results in improved net health outcomes.

DESCRIPTION

Dry needling, also known as intramuscular stimulation, is the insertion of needles at targeted painful or sensitive trigger points in the muscles, and does not involve the injection of medications through the needle. Dry needling is typically used to treat myofascial pain syndrome and is often performed by Western medical practitioners using acupuncture-type needles, which are used to elicit a twitch response to release the trigger point and restore normal function to the muscle. Acupuncture falls within the scope of traditional Chinese medicine and is the insertion of needles at acupuncture points, mostly found along meridian lines. Acupuncture is typically used to treat digestive issues, stress, insomnia, reduced fertility, and chronic pain.

CROSS REFERENCES

1. Prolotherapy, Medicine, Policy No. 40

EVIDENCE SUMMARY

A search for published peer-reviewed systematic reviews and randomized controlled trials (RCT) addressing dry needling was conducted through August, 2017.

SYSTEMATIC REVIEWS

Myofascial Pain Syndrome

Several systematic reviews has been published on the use of dry needling for the treatment of myofascial pain syndrome.[1-5] These reviews have focused on a broad range of myofascial pain syndrome trigger points including but not limited to, the head, neck, shoulder, back, and heal of the foot. The reviews generally reported that although dry needling could be useful
when used in conjunction with other therapies (i.e. acupuncture, massage, etc.), there is not enough evidence to determine the effectiveness of dry needling alone. As a result, more high quality studies are needed to determine the effectiveness of dry needling for myofascial pain syndrome. The main limitations to these reviews are that the included studies are often of low quality, and there is significant heterogeneity in terms of treatment protocols used in the included studies.

One additional systematic review was identified\[6\] that conflicted with the other systematic reviews. The authors concluded that dry needling could be recommended for relieving myofascial pain syndrome in the neck and shoulders. However, their findings found that wet needling (also known as trigger point injection therapy) and other therapies (i.e. physiotherapy) were more effective than dry needling in the treatment of myofascial pain syndrome.

Other Indications

Several systematic reviews has been published on the use of dry needling for the treatment of various indications including cervicogenic/tension headaches\[7\], lower back pain\[8\], neck pain\[9\], knee pain\[10\], hamstring tightness\[11\], and multiple body regions assessed simultaneously.\[12-14\] Many of these reviews include nonrandomized studies in their analysis and studies comparing dry needling to a variety of other pain treatments, making it difficult to pool results for meta-analyses. The reviews generally reported that dry needling had a positive effect on pain reduction, but the beneficial effects were similar to other treatment modalities. Methodological differences in the treatment parameters were evident in most reviews. In addition, most of the studies included in these reviews lack long-term follow-up, and those that do, report no maintenance of improved function at long-term follow-up. All reviews conclude that more high-quality RCTs with long-term follow-up are needed to determine the efficacy of dry needling.

RANDOMIZED CONTROLLED TRIALS

Several RCTs\[15-18\] were not included in the systematic reviews and focused on dry needling in a variety of locations.

Espi-Lopez (2017) included 60 participants with patellofemoral pain to compare the effects of dry needling in addition to manual therapy and exercise programs.\[10\] The treatment group of dry needling plus manual therapy and exercise did not improve outcomes for pain and disability at 3 month follow up.

Geist (2016) included 27 participants with hamstring extensibility deficits comparing the effects of blunt needling and dry needling\.\[11\]. The treatment group showed no differences when compared to stretching alone after three sessions over a period of four to six weeks. Mason (2016) included 39 subjects comparing dry needling and stretching to a control group of stretching alone\.\[19\]. Two sessions of dry needling were done in the control group and there was no difference in outcomes between the treatment and control groups.

Segura-Orti (2016) included 34 participants with upper trapezius myofascial trigger points comparing the effects of dry needling to strain-counterstrain techniques\[20\]. Sessions lasted for three weeks and there were no differences between any groups in any of the outcome measures.
Three of the RCTs focused on dry needling in neck pain.[16-18] Merjuto-Vazauez et al. (10) included 17 participants who were randomly assigned to either trigger point dry needling for neck pain, or added to the waiting list and received no intervention. Participants were assessed one week after the intervention. Results indicated that participants treated with one session of trigger point dry needling experienced a greater decrease in neck pain, greater increase in pressure pain threshold, and an increase in cervical range of motion when compared to those who did not receive the intervention. This RCT only examined short term affects assessing participants at just one time point one week after treatment.

Pecos-Martin et al.[18] included 72 participants with mechanical idiopathic neck pain for greater than three months and active trigger points in the lower trapezius muscle. Both the treatment and control group received dry needling limiting the conclusions that can be drawn.

Llamas-Ramos et al.[16] included 94 participants with idiopathic mechanical neck pain who were referred by their physician to physical therapy. Participants were randomly assigned to receive either dry needling or manual therapy and received two treatments. Outcomes were assessed at one and two weeks post treatment. Results indicated that there were similar outcomes in terms of pain, disability, and cervical range of motion, and more research is needed to examine the long term effects of dry needling for the management of chronic mechanical neck pain.

Cotchett et al.[15] included 84 participants with plantar heel pain for at least one month. Participants were randomly assigned to receive real or sham trigger point dry needling, and the intervention consisted of one treatment per week for six weeks. Participants were followed for a total of 12 weeks. Results indicated that although there was an effect with the dry needling, one out of every three people in the study experienced an immediate mild and transitory adverse event.

**PRACTICE GUIDELINE SUMMARY**

No clinical practice guidelines were identified that specifically address dry needling.

**SUMMARY**

The current evidence on drying needling for any condition is insufficient and of poor quality limiting the conclusions that can be drawn. High quality randomized controlled trials are needed in order to determine the effectiveness of dry needling compared to other interventions or alone for the treatment of any condition.

**REFERENCES**


controlled trial. *Archives of physical medicine and rehabilitation*. 2015 May;96(5):775-81. PMID: 25582412


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*Date of Origin: March 2009*