

## Dry needling trigger point therapy in the shoulder region-Lack of evidences.

**Bhavan Bhavsar\***

M.P. Shah Hospital Nairobi, Kenya

**Keywords:** Dry needling, shoulder pain, myofascial, musculoskeletal, movement, trigger points, dysfunction.

*Accepted on April 09, 2019*

### Introduction

Being a physio, we coined new therapy every day and yes, flock of workshops messages every day pops in many medium of communication. Are we so desperate for excogitation, which are making us to do non-evidence gimmicks? Recently an orthopedics consultant asked, do you provide dry needling, we have so many patients asking for shoulder pain? In reply we mentioned that we have learnt and practice but not for non-evidence therapies. Do we really need to looks at recent evidences and give the best to our clients or do marketing gimmicks and serve them with something new which can attract?

Let's start with understanding of dry needling. Dry needling is involves inserting sharp needle into the muscle pain point or so called trigger point. Although it differs from injection therapy where chemical substances are inserted, in contrast dry needling does not involve any chemical substance insertion [1].

Many of us bewilder between, dry needling, wet needling and acupuncture. Acupuncture is principally applied on meridians lines which are based on ancient traditional Chinese medicine. Although meridian lines represent wider prospect than only pain, while dry needling mainly focuses on pain points. Acupuncture also involves function on internal organ and other physical ailments of human body [2,3].

Dry needling treatment is a relatively recent trend of management in pain rehabilitation. The management system was coined in early 1980's and then after developed globally while mainly leaving epicenter at European countries. In late seventies, Karl Lewit published methodology of dry needling which states as gold standards and recent trends are following his path. Travell, Lewit, Gunn, Garvey, Peter Baldry, Simons are many from the few who are well renowned for their work in dry needling [4].

Anecdote of dry needling and recent functional practice principles are quite different though improvising with recent methodology completely changed the practice of pain management. Dry needling is now inclusion from many forms of pain relieving therapies globally. Acupuncture has major role for introducing dry needling. Not all but few of the principle are functional with dry needling and functionally it has been used by vibrant professional including physical therapist, doctors, chiropractors and manual therapist.

Shoulder pain of musculoskeletal origin is the main cause of upper limb pain of non-traumatic origin. Despite being common reasons for consultation, there is no established protocol for treatment due to the complexity of its etiology. Although it has been found that the presence of myofascial trigger points on

the shoulder muscles is a common condition associated with patients suffering from shoulder pain [1,5].

Myo-Fascial Trigger Points (MFTPs) are described as taut bands in muscles and considered to be one cause of shoulder pain. There are two types: latent and active, Latent cause pain only on mechanical stimulation and cause active pain at rest or during activity. Trigger Point Dry Needling (TPDN) is a form of acupuncture where rapid needling is used to reduce the pain from the MFTP. This review aspires to evaluate:

- The effectiveness of TPDN on pain and Function for pain experienced in the shoulder.
- Adverse effects associated with TPDN.

A systemic review is a synthesis of the available research evidence that conforms to pre-specified inclusion criteria. The conclusions reached are to a large extent dependent on the quality of the included research. It is clear that the studies included in this review were of varying quality (many of low quality), used different outcome measurements, different treatment techniques, and different comparator groups and followed up participants for different lengths of time. It is clear that based on these limitations of the included studies that a definite answer to the authors' research question is not yet available, but currently the evidence to support TPDN for pain experienced in the shoulder region is poor. In this review all studies that included shoulder pain were considered. Sub categories of people with shoulder pain may have a different response to TPDN [6,7].

“The higher quality systematic reviews generally found that dry needling had similar or worse outcomes compared to comparator interventions.”

### Method

173 research papers were tested and 11 trials (totally 496 people) conformed to the inclusion standards, with 7 trials scoring  $\geq 6$  on the PEDro Score for data streaming of the title. Two trials were admitted in the meta-analysis. There was substantial variation in the trial methodology, conditions being treated, muscles needed, no. of treatments, outcome measures, follow up times and comparator groups. The authors reported that based on their findings there is very low level of evidence to support the use of TPDN for people experiencing shoulder pain. Two studies reported adverse effects and these included; bruising, bleeding and pain during or after treatment [8-10].

For the broader descriptive method, many of the researcher studied TPDN in conjunction with upper extremity pain and its relevant pain syndrome. In many of the studies, primary outcome

included shoulder or upper limb pain, shoulder or upper limb dysfunction though it shows lack of evidence to reduce pain or muscular discomfort or enhance range of motion of upper extremity [7,10]. Though many of the subject controlled study also give contrast information to what recent evidence trends suggest. Study conducted by Koppenhaver and colleagues also found that changes of range of motion & pain sensitivity but no profound changes in muscle function which is more desirable [11].

During the screening of all papers, lack of evidence is distinctly evident and thus, practice of such treatment protocols needs to be minimized or terminated till the profound positive outcome is available. Also note that executing such management protocols, therapists need to educate the clients about the adverse effects and should also take the consent.

### **Discussion**

Having the research data, now one can conclude not to stick with dry needling only for shoulder pain. Also be aware about such workshops or educators, who are spreading non-evident information and knowledge.

Are we really keen to put faulty degrees and certification on our name or learning for good? In my view, these types of workshops are baffling around physiotherapy professional educational system and which is devastating for our future generations.

Combinational therapy is still under development for research and non-efficient evidence available to formulate treatment protocol for shoulder pain in conjunction with dry needling.

Research is necessary for the innovation and formulate the professional ethical outline but not at the cost of humanity. Clinical superiority and its implication of dry needling to reduce functional limitation, disability is still unclear and needs to be studied on intensive basis for future policy forming [12]. Dry needling methodology and its treatment protocol needs to be studied in depth to execute effectively. For me its education and academic regulation is also very important same like bachelor or master program.

I hope, when next time you get to know about such workshop, try to find the evidence before attending it. And yes, no such workshops are ready to spread the evidence.

### **References**

1. Dommerholt J. Dry needling-peripheral and central considerations. *J Man Manip Ther.* 2011; 19:223-7.
2. Baldry P. Myofascial pain and fibromyalgia syndromes. Harcourt. 2001.
3. Cagnie B, Dewitte V, Barbe T, et al. Physiologic effects of dry needling. *Curr Pain Headache Rep.* 2013; 17:348.
4. Lewis T. Study of somatic pain. *Br Med J* 1938; 1:321-5.
5. Hong CZ. New trends in myofascial pain syndrome. *Zhonghua Yi Xue Za Zhi (taipei)* 2002; 65:501-12.
6. Ge HY, Fernandez-de-Las-Penas C, Madeleine P, et al. Topographical mapping and mechanical pain sensitivity of myofascial trigger points in the infraspinatus muscle. *Eur J Pian.* 2008; 12:859-65.
7. Hall ML, Mackie AC, Ribeiro DC. Effects of dry needling trigger point therapy in the shoulder region on patients with upper extremity pain and dysfunction: a systematic review with meta-analysis. *Physiotherapy.* 2018; 104:167-77.
8. Kietrys DM, Palombaro KM, Azzaretto E, et al. Effectiveness of dry needling for upper quarter myofascial pain: a systematic review and meta-analysis. *J Orthop Sports Phys Ther.* 2013; 43:620-34.
9. Rha DW, Park GY, Kim YK, et al. Comparison of the therapeutic effects of ultrasound-guided platelet-rich plasma injection and dry needling in rotator cuff disease. A randomized controlled trial. *Clin Rehabil.* 2013; 27:113-22.
10. Chou LW, Kao MJ, Lin JG. Probable mechanisms of needling therapies for myofascial pain control. *Evid Based Complement Alternat Med.* 2012; 2012:705327.
11. Koppenhaver S, Embry R, Ciccarello J, et al. Effects of dry needling to the symptomatic versus control shoulder in patients with unilateral subacromial pain syndrome. *Man Ther.* 2016; 26:62-9.
12. Liu L, Huang QM, Liu QG, et al. Evidence for dry needling in the management of myofascial trigger points associated with low back pain: a systematic review and meta-analysis. *Arch Phys Med Rehabil.* 2018; 99:144-52.9.

### **\*Correspondence to:**

Bhavan Bhavsar  
M.P. Shah Hospital  
Nairobi, Kenya  
E-mail: physioaround@gmail.com