**Food for Thought on Trigger Points**

As physical therapists we treat “trigger points” all the time. It is widely accepted that trigger points cause pain and dysfunction. What if I told you that they may not even exist?

Trigger points, before they were trigger points, were identified in 1816 as thickenings or nodular tumors. In 1843 they were described as “muskelchwiele” or muscle callouses. “Trigger point” was coined in the 1950’s by Travell and Rinzler. And finally, the Trigger point manual was published by Simons in 1983.

They are defined as a discrete, hyperirritable nodule in a taut band of skeletal muscle. A hyperirritable spot in a skeletal muscle that is associated with a hypersensitive palpable nodule within a taut band. They are palpable and tender during physical exam. They may be spontaneously painful or painful with palpation and are associated with muscle dysfunction, weakness and limited ROM.

Studies are conflicted on whether or not physical therapists can accurately detect trigger points.

* “palpation is not reliable for detecting taut bands/ local twitch response” (Hsieh et al., 2000)
* Interrater reliability between two expert examiners involving upper quarter muscles exhibited substantial agreement” (Moral et al., 2017)
* Interrater agreement in a systematic review is unreliable (Rathbone et al., 2017)
* Further research is needed to test the reliability, sensitivity, and specificity of the diagnostic criteria for palpation (Tough et al., 2007)

We all use various methods for treating what we feel are “trigger points”. The evidence for manual therapy can be contrarian.

* Manual therapy for TrPs is significantly superior to inactive intervention in the treatment of migraines (Maistrello et al., 2018)\*
* Evidence for TPMT in the tx of chronic non-cancer pain is weak (Denneny et al., 2018)
* Myofascial Trigger Point phenomenon has good face validity according to a study published on Sept 13 ( Barbero et al., 2019)

The same goes for trigger point dry needling.

* DN into an active MTrP showed a significant reduction in the VAS and pressure-pain threshold( Pecos-Martin et al., 2015)
* Dry needling was not beneficial in addition to personalized, evidence-based physical therapy treatment for patients with shoulder pain (Perez-Palomeres et al., 2017)

 \*no group that had either DN or other PT treatment

- DN when compared to sham treatment or control provided better functional outcomes (Gattie et al., 2018)

* DN reduces pain and TrP status which significantly alters pain perception in patients with myofascial pain syndrome (Gerber et al, 2015)

Various types of imaging have been used to identify what we think are trigger points. These are Ultrasound, Ultrasound with myography, EMG, and Color variance imaging/3D imaging. Unfortunately, none of these have been studied with palpation to assess accuracy.

The bottom line is that, as a whole, physical therapists need to do more and better studies. We need to define what we are treating and why it is happening. Techniques for identification need to be refined.

Until that time comes, I will continue to treat “trigger points”. The patient’s symptoms and my experience will dictate how I do that. The purpose of this article is to create conversation and a hunger for more knowledge and ensure that we are not treating how we are treating because we have always done it that way.

Resources

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