

# Periarticular Myofascial Pain

**An under-appreciated and under-treated condition which needs to be considered before having orthopedic joint replacement surgery**

**By Russell Rothenberg, M.D.**

As an experienced rheumatologist, I regularly examine the arthritic changes in my patients' joints. My clinical goal is to reduce their arthritis inflammation, reduce joint pain and improve physical function. However, I have a significant group of patients whose joint pain and decreased function are more directly related to the myofascial pain around their involved joints (periarticular): usually hips, knees and shoulders, than due to their arthritis. I call this clinical finding periarticular myofascial pain.

In patients with periarticular myofascial pain, muscles around the involved joints contain very tender discrete nodules. Therapeutically, the patients respond to neuromuscular physical therapy, better balance and range of motion exercises, and medications that treat myofascial pain. These patients do not need NSAIDs, such as ibuprofen or naproxen, as their primary medication therapy since the problem causing their pain and dysfunction is predominantly neurologic rather than arthritic

It surprises me that this common physical finding in my practice, periarticular myofascial pain, is not listed on the Arthritis Foundation's website as a source of arthritis pain. Periarticular myofascial pain appears to be under-appreciated and under-treated by primary care physicians and by my orthopedic surgery colleagues. I discussed periarticular myofascial pain when I gave a medical grand rounds lecture at Suburban Hospital in 2011, "What the Non-Rheumatologist Needs to Know About Joint Pain and Rheumatic Disease." You can view my medical grand rounds presentation on my website located at: [www.RussellRothenbergMD.com](http://www.RussellRothenbergMD.com).

It is not uncommon for a patient with arthritis pain of the knee to have concurrent myofascial pain around the knee, located in the muscles attached to the tendons of the knee joint. I suggested to the doctors, it would be helpful to examine the knee to differentiate whether the patient's major pain was coming from the arthritic joint or coming from the surrounding myofascial muscle pain, or both. In patients with moderate-to-severe osteoarthritis on X-ray, a major determination as to when they require joint replacement orthopedic surgery is when they can no longer tolerate the pain from that joint; but maybe the pain is more periarticular myofascial pain than arthritic pain.

For periarticular myofascial pain around the joint, the treatment plan is to refer the patient to a skilled physical therapist for techniques such as fluoride spray and stretch, myofascial release and dry needling, and the prescription of medications, if needed, such as Neurontin (gabapentin), Lyrica (pregabalin), or Ultram (tramadol) to control the release of myofascial pain neurotransmitters, substance P, and other neurotransmitters of pain. Muscle relaxant medications like cyclobenzaprine can be effective. Also, the doctor can prescribe NSAIDs or acetaminophen, if needed, for the arthritis component of the patient's joint pain. These patients should have treatment for the periarticular myofascial component of their joint pain first, before having orthopedic joint replacement surgery.

I have encountered orthopedic surgeons who do not think there is such an entity as myofascial pain. In response, I have referenced a comprehensive article co-authored by Dr. Jay Shah, which you can take to your doctors if needed, showing that there is a wealth of evidence that myofascial pain exists as an important clinical entity.<sup>1</sup> Dr. Shah is a senior staff psychiatrist and clinical investigator in the Rehabilitation Medicine

Department at the NIH Clinical Center, and he is a leading authority on Myofascial Pain Syndrome. It is caused by a neurologic process involving trigger points and the release of important nociceptive chemicals in the myofascial tissue and the spinal cord inducing ischemia, inflammation, and muscular pain.

Currently, the medical community is more aware that fibromyalgia syndrome, associated with myofascial pain, is a common medical problem, with the patients feeling generalized joint and soft tissue pain. Non-fibromyalgia patients also have problems with periarticular myofascial pain. I often see patients with Joint Hypermobility Syndrome (JHS) who have periarticular myofascial pain. These patients tend to be healthy young women, with flexible joints that sublux, or pop out of place, causing joint instability and repetitive joint injuries, and ultimately periarticular myofascial pain.

We also know that patients with a more severe joint hypermobility condition have a genetic collagen disease, Ehlers Danlos Type 3, hypermobile type (EDS 3), and they also have problems with periarticular myofascial pain and secondary fibromyalgia syndrome. There is a clinical spectrum between patients with JHS and EDS3.

Myofascial Pain Syndrome is a common source of soft tissue and muscle pain. Patients have exquisitely painful muscle nodules associated with trigger points. Drs. Janet Travell and David Simons were instrumental in describing myofascial pain in the 1980's. In their classic two-volume book, *Myofascial Pain and Dysfunction: The Trigger Point Manual*, they describe a trigger point as “the muscle reveals circumscribed spot tenderness in a nodule that is part of a palpably tense band of muscle fibers, patient recognition of the pain evoked by pressure on the tender spot . . .”<sup>2</sup>

The Cleveland Clinic's online description of myofascial pain includes, “An active trigger point in

an area of extreme tenderness that usually lies within the skeletal muscle and which is associated with a local or regional pain.” It continues to explain that common causes include “muscle injury or excessive strain on a particular muscle or muscle group, ligament, or tendon.”<sup>3</sup>

Recently, when I contacted Dr. Shah, to get his opinion about the clinical importance of periarticular myofascial pain, Dr Shah said that he and his NIH colleagues have discussed this condition in their research group, and he believes it occurs more frequently than reported. Many health professionals, including skilled physical therapists, treating chronic arthritis patients include emphasis on core exercises, gait and balance techniques: all important treatment modalities for the treatment of periarticular myofascial pain as well as chronic arthritis. Other treatments for periarticular myofascial pain include hot and cold compresses, neuromuscular myofascial release and dry needling, and if needed, the prescription medications listed above.

Sometimes you may have more arthritis pain and dysfunction, and sometimes you may have more myofascial pain in the muscles around your arthritic joint. The finding that chronic arthritis and periarticular myofascial pain co-exist in many patients is an important part of developing the proper treatment plan to address both medical conditions to treat the whole patient.

#### References

1. Shah, JP, et.al., “Myofascial Trigger Points Then and Now: A Historical and Scientific Perspective,” *PM&R*, July 2015 vol. 7 pp. 746-761.
2. Simons D, Travell J, and Simons L, *Myofascial Pain and Dysfunction: The Trigger Point Manual*, Lippincott Williams & Wilkins, 1983 vol. 1, p.112.
3. <https://my.clevelandclinic.org/health/diseases/12054-myofascial-pain-syndrome>

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