Treatment options for medial, lateral epicondylitis (tennis, golfer’s elbow)

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While there is not an overabundance of research, there are a number of treatment options for lateral epicondylitis

Epicondylitis, often referred to as “tennis elbow” or “golfer’s elbow,” is a very common condition seen in chiropractic offices. But surprisingly, there are limited literature research studies reporting the incidence rate.

The current studies show that the incidence rate was approximately 1 to 1.3 percent. Based upon an adult U.S. population of 252,063,800, this translates to 2,500,000 new cases per year.

Lateral epicondylitis diagnoses are somewhat misleading because many who incur these conditions are neither golfers nor tennis enthusiasts. Musicians, construction workers and weight
lifters are frequent sufferers. Even your patients who spend most of their day sedentary in front of a computer are susceptible. The condition is most prevalent in the age group of 45-54 years.2

Why? The muscle-tendon complex is continually stressed through repetitive motions. The injuries are considered repetitive stress injuries (RSI).

Golfer’s versus tennis elbow

Both injuries involve the epicondyles, however, golfer’s elbow usually involves the medial epicondyle at the tenoperiosteal junction of the flexor carpi radialis tendon.5 Tennis elbow usually involves the lateral epicondyle and the extensor carpi radialis brevis.6

Although there is very little scientific data available on the natural history of the disease, 80-90% of patients spontaneously recover within 1-2 years.2 Adhesions tend to form if the patient does not refrain from the pain causing activity, thus prolonging the recovery time. Often, referred pain is limited. However, pain begins radiating from the elbow to the wrist by overuse and lack of rest. More fibers become strained as the injury spreads throughout the muscle-tendon unit.

Treatment options

A variety of treatment options are available to the practitioner. Perhaps the most important conversation is one where the patient is educated to prevent future injuries and exacerbating the current one.

Temporary relief

Acute relief is sought by patients while healing is being undertaken. Some of the acute treatments include:

- **Cryotherapy**, whether cold packs or ice massage; typically each application would be for 10 minutes in this region of the body, due to the relatively small thickness of the tissue.
- Analgesics and NSAIDS
- **Topicals** that contain ingredients like arnica, camphor, menthol, capsaicin etc.

Laser therapy

**Laser therapy** or photobiomodulation (PBM) is a non-invasive effective modality for epicondylitis.5, 6, 7, 8 Although the literature finds contradicting evidence for most modalities, including PBM, there is some high-quality research supporting the benefits of laser therapy for tendinopathies.9, 10, 11, 12, 13 In our experience, beginning treatment at the biceps and triceps and then
moving towards the elbow creates a better result. Why? The photons of energy begin to saturate the area and start the cascade of biological effects. Those biological effects with lasers are well documented and include:

- Anti-Inflammation
- Anti-Pain (Analgesia)
- Accelerated Tissue Repair and Cell Growth
- Immunoregulation
- Improved Nerve Function
- Improved Vascular Activity
- Increased Metabolic Activity
- Reduced Fibrous Tissue Formation (Scars)
- Trigger Point Resolution and Acupuncture Point Stimulation

In addition, one should treat below the elbow to the wrist area because the forearm structures/fascia are connected to the elbow and are often “stressed” by the repetitive use. Before leaving the treatment table patients often report mitigation of discomfort.

Treatment applied directly on the skin with firm pressure is preferable to maximize penetration, to limit reflection and scatter, and of course to minimize superficial capillary beds absorbing your photons before penetration.

Long, straight sweeping motions are frequently the best approach. Combining active range of motion with the laser therapy will result in a better outcome compared to not using range of motion. The elbow joint should be moved through flexion, extension, supination and pronation. This will permit the laser photons to reach more surface area of the underlying tissues and joints.

**Friction therapy**

Although the literature does not give much guidance for deep friction massage (IASTM), for chronic cases we find that friction therapy, whether with your hands or tools, helps to reduce the adhesions in the soft tissue that have developed. We recommend laser therapy after the friction therapy. Why? The friction therapy tends to produce acute inflammation for which the laser therapy immediately treats and will accelerate the inflammatory healing process.

**Adjustments/manipulation**

We prefer laser therapy treatment prior to the manipulation, but after transverse friction methods. The muscles, tendons and ligaments tend to have more range of motion after laser therapy because of the biological effects of PBM. The Mill’s Maneuver-type of manipulation can be performed immediately after deep transverse friction massage; this technique has shown to be beneficial for the elbow tendinopathies.
Nutrition

It can be helpful to discuss nutritional needs with the patient, whether you sell supplements or not. However, the vast amount of nutritional literature does not support any specific nutrient or combination of nutrients for tendinopathy. However, one article supports vitamin C with collagen. Clinical experience supports a variety of supplements such as omega-3, zinc, magnesium, and vitamins K, B12, folic acid, and vitamin C.

Stretching

At-home stretches and exercises help patients maintain the improvements made in your clinic. Teach the patient proper eccentric stretches. Eccentric exercise lengthens the muscle-tendon complex resulting in structural remodeling of the tendon with hypertrophy and increased tensile strength of the tendon. Working with devices like a Flex Bar has been shown to be beneficial.

Bringing it together

It is imperative to become a great clinician and to master the anatomy of the extremities. The correct diagnosis of the tendinosis will allow one to properly treat the condition. The great clinician must also understand that rest and time are also essential and that not one specific method of treatment is superior to others according to the present literature.

However, accomplishing relief of acute areas of discomfort will allow patients to perform the stretching and exercises at home that supplement in-office modalities like friction and laser methods.

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