Best Treatment for Tennis Elbow

The best, most effective treatment for lateral epicondylitis, otherwise known as "tennis elbow" remains unknown. Many things have been tried including antiinflammatory drugs, exercise, bracing or splinting, injection therapy, and surgery. Short-term pain relief may be obtained but no long-term benefit has been reported.

In this study, the results of three different types of treatment were compared on 60 patients who had lateral epicondylitis. Painful symptoms along the outside of the elbow (and diagnosed as tennis elbow) had been present for more than three months for each person in the study. Twenty patients received a single injection of platelet-rich plasma, 20 received an injection of saline (salt water for a placebo treatment), and 20 people got a steroid injection. Change in pain was the main outcome measured.

Platelet-rich plasma (PRP) refers to a sample of serum (blood) plasma that has as much as four times more than the normal amount of platelets and growth factors. This treatment enhances the bodyâ€™s natural ability to heal itself. PRP is used to improve healing and shorten recovery time from acute and chronic soft tissue injuries.

If you have ever experienced tennis elbow or known someone who has had this condition, then you know it doesn't necessarily have anything to do with playing tennis. Any repetitive activity (especially with force) can cause overloading, microtearing, and inflammation of the tendon at the elbow.

In fact, this is a fairly common problem in the work place. Workers with strenuous jobs in various industries are often affected. And since an episode of lateral epicondylitis can last six months to two years, effective treatment is a must to keep workers on-the-job, productive, and earning a living.

In this study, one surgeon performed all of the procedures. In each case, the physician knew what type of injection was being given but the patients did not. In fact, they were blindfolded during the treatment. Results were measured at three, six, and 12 months after treatment using an ultrasound test of tendon thickness and pain intensity. Function was also evaluated by having the patients fill out a survey called the Patient-Rated Tennis Elbow Evaluation (PRTEE).

The authors reported a very high dropout rate from this study in the first three months. The patients said they left the study because the treatment didn't work. At the end of 12 months, only 16 or the original 60 patients were still participating. Their overall findings are summarized below:

Steroid injection gave the best pain relief and improved function in the first month.

At the end of three months, there was no difference in treatment results between the three choices for pain and disability measures.

Tendon thickness increased with PRP (blood injection therapy) and saline. Tendon (and skin) thickness decreased (atrophy) with the steroid injection.

Platelet-rich plasma (PRP) injections were the most painful (additional pain lasting up to three weeks in some cases). That is because PRP requires five to seven pokes into the tissue as opposed to only one with steroid or saline injections.

The authors concluded that their study repeated what other studies have shown regarding steroid injections:

they provide early pain relief but have a thinning effect on the soft tissues (skin and tendon). Results using platelet-rich plasma (PRP) were not as favorable as has been reported in other studies. In this study, PRP wasn't any better than a placebo treatment. And so, the search for a successful treatment for tennis elbow continues.

Reference: Thager Persson Krogh, MD, et al. Treatment of Lateral Epicondylitis with Platelet-Rich Plasma, Glucocorticoid, or Saline. In The American Journal of Sports Medicine. March 2013. Vol. 41. No. 3. Pp. 625-635.