

Elbow Annotated Bib

Bisset L, Beller E, Jull G, Brooks P, Darnell R, Vicenzino B. Mobilisation with movement and exercise, corticosteroid injection, or wait and see for tennis elbow: randomised trial. *BMJ*. 2006;333:939.

The purpose of the article was to distinguish what treatment, corticosteroid injection or physical therapy, was better for decreasing pain. 198 participants were used who had been diagnosed with unilateral tennis elbow with pain on the lateral epicondylitis and with resisted wrist extension. The participants were random as they volunteered after seeing media releases or advertisements. Each of the patients had tennis elbow for at least 6 weeks and had no previous treatment. A blinded assessor made the diagnosis of all the patients. Patients were randomly divided by a computer into 3 groups consisting of a corticosteroid injection group, physical therapy group, and a wait and see group which acted as a control and were given no treatment. The corticosteroid group was given 1 injection and possibly a second injection 2 weeks later if deemed appropriate by a doctor and no other treatment. The physical therapy group had 8 treatment sessions of 30 minutes spanning 6 weeks with a physical therapist consisting of elbow manipulations and therapeutic exercise. Also these patients were given resisted bands and exercises to do at home. To judge the success of treatment a Likert scale was used to judge global improvement, pain free grip force was measured by a grip dynamometer and a blinded assessor measured severity of the elbow on a visual analog scale from 0-100 at 3, 6, 12, 26 and 52 weeks. Only 8 participants did not complete the trial, which included 5 from the wait and see group and 3 from the physical therapy group. The results found that at 6 weeks the number of successes found wait and see to be 27%, injection 78% and physical therapy 65%. Then at week 52 percent of successes was wait and see 90%, injection 68% and physical therapy 94%. When comparing injection to wait and see relative risk reduction was .7 at 6 weeks and .3 at 52 weeks with a numbers needed to treat of 2 at 6 weeks and 4 at 52 weeks. When comparing physical therapy to wait and see relative risk reduction was .5 at 6 weeks and .04 at 52 weeks with a numbers needed to treat of 3 at 6 weeks and 30 at 52 weeks. Finally, when comparing physical therapy to injection relative risk reduction was .4 at 6 weeks and .3 to 52 weeks with a numbers needed to treat of 7 at 6 weeks and 4 at 52 weeks. Using the AAOS guidelines this article is a level 1 study because it is a quality blind randomized control study with very good follow up with a statistically significant difference.

The relevance to athletic training is that with patients with lateral tennis elbow corticosteroid injection is not the best choice for long term results and that physical therapy including therapeutic exercise and elbow mobilizations should be used. If for some reason the athlete needs a quick fix for an upcoming event and is not worried about long term, then a corticosteroid injection is warranted. If a patient wants a quick fix with an injection then the athletic trainer needs to explain that an injection is not the long term answer and even though physical therapy is a longer process that requires more work, the long term results are far better.