Treatment of tennis elbow: the evidence

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Tennis elbow is an overuse syndrome most prevalent in the fourth decade. Predominant symptoms of lateral elbow pain on gripping or resisted wrist dorsiflexion result in many consultations in primary care and days lost from work. Most patients will recover within a year.[1] This should be remembered when considering the results of this Clinical Evidence extract, which is based on a Cochrane review of the subject.

The review identified randomised controlled trials (RCTs) of numerous treatment modalities for lateral elbow pain. The risks of blindly accepting "evidence based medicine" are known,[2] and there are some limitations within the review. The only treatments shown to be beneficial or likely to be beneficial were oral and topical non-steroidal anti-inflammatory drugs, which are often the first line therapy in the early stage of the disease at a point when many cases would show spontaneous resolution. The full *Clinical Evidence* text (www.clinicalevidence.com) shows that some trials had small treatment groups, but the data could not be pooled because data collection, analysis, and presentation were not consistent between trials. Some trials had low validity scores, low power, and insufficient data. Recruitment of patients was inconsistent between trials; some patients had had symptoms for several weeks and some for many months, introducing the risk of lead time bias. For "second line" treatments such as surgery, the review identified a relative lack of RCTs. This is a reflection of the logistical difficulties encountered with RCTs of surgical treatments. For these reasons, the treatment of longstanding tennis elbow may best be considered separately.

Though the data may be of variable quality, certain recommendations for clinical practice can be made. In the early phase of the disease, taking non-steroidal anti-inflammatory drugs and avoiding provoking activities is likely to be beneficial. Corticosteroid injections may be helpful in breaking the pain cycle, but patients should be warned against inflicting further injury by reintroducing activity during the subsequent pain-free "honeymoon period." There is a worrying trend for symptoms to recur some months after steroid injection,[3 4] but in such cases surgical release of the extensor origin may give lasting relief: in a prospective non-randomised study, 51 of 57 patients had an excellent or good result 59 months (range 50 to 65 months) after surgery.[5]

The use of acupuncture, shock wave therapy, orthoses, and long term treatment with non-steroidal anti-inflammatory drugs is not supported by the evidence thus far. Further research is needed to clarify the role of these and other treatment modalities, in the form of well constructed RCT's: the primary care physician needs to know if topical non-steroidal anti-inflammatory drugs, acupuncture, steroid injections, or a wait and see policy are as successful as oral non-steroidal anti-inflammatory drugs in treating tennis elbow soon after onset. The orthopaedic community needs to consider the role of prolonged treatment with non-steroidal anti-inflammatory drugs and of physical therapies (orthoses, physiotherapy, and mobilisation) in treating established tennis elbow before reaching for the knife.

Competing interests: None declared.

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