



Treating tennis elbow (lateral epicondylalgia) with corticosteroid injections are beneficial in the short term but harmful in the long term

Summary

Corticosteroid injections for the treatment of tennis elbow are beneficial in the short term (0–12 weeks) but harmful in the long term. It is therefore ethically questionable to spend resources on this treatment from both patient and societal perspectives. If offered, it is imperative that patients be informed about the harmful effects corticosteroid injections may induce.



What is tennis elbow?

Tendon pain is referred to as tendinopathy when the pain is associated with a tendon, or enthesopathy when the pain is associated with the areas where ligaments or tendons are attached to the bone. Tendons and their associated tissues can become painful and swollen in response to excessive or repetitive stress. Enthesopathies involving the attachment of the forearm muscle to the outer part of the elbow are commonly referred to as tennis elbow (lateral epicondylalgia). The condition is believed to begin with microscopic ruptures or tears near the place where the tendon connects to the bone. Tennis elbow is not associated with any of the classical signs of inflammation of the tendon. Despite this lack of inflammation, tennis elbow has been traditionally treated with local injections of the anti-inflammatory agent corticosteroid.

Treatment in Sweden

Tennis elbow occurs in 0.3–1.1 percent of the Swedish population [1], meaning that between 29,000 and 105,000 Swedish people suffer from tennis elbow each year [2]. Tennis elbow most commonly affects people between the ages of 40 and 60.

It is unclear to what extent corticosteroid injections are used to treat tennis elbow in Sweden, however direct communication with several health clinics revealed that the method is commonly used. This is even true for some private user-pay clinics.

Using corticosteroid injections to treat tennis elbow is harmful in the long run

SBU has summarized and commented on a portion of an Australian systematic review that examines the efficacy and safety of diverse injections for the management of diverse tendinopathies such as tennis elbow, golf elbow, rotator cuff syndrome, Achilles' heel, and jumper's knee. The systematic review presented the clinical effects and side effects of each tendinopathy treatment in the short term (0–12 weeks), intermediate term (13–26 weeks) and the long term (52 weeks or longer). In summary, the evidence indicates that corticosteroid injections are beneficial in the short term when compared to other treatments. However, the injections were shown to be harmful in both the intermediate and long term. For more information, read SBU Kommenterar [3].

A treatment that leads to unnecessary costs

Corticosteroid injections require cortisone, syringe, needle, adhesive bandage, and occasionally a local anaesthetic. The material costs for one injection is estimated to be approximately 120 Swedish crowns (SEK) [4]. The injections require approximately 15 minutes for a doctor to administer, usually during the course of a standard doctors visit. That 15 minutes is calculated to increase the price of each injection by a further 220 SEK (the average GP earns approximately 890 SEK per hour¹). The total cost for each corticosteroid injection can therefore be estimated to be about 340 SEK. Despite the fact that the cost for each injection is relatively low, the expense is completely unwarranted as the treatment is not only ineffective, but may be harmful.

Although the actual cost of treating tennis elbow with corticosteroid injections is unknown, the annual cost of injecting everyone who develops tennis elbow with corticosteroid injections can be estimated to be between 9.9 and 35.7 million SEK.

The predicted savings each county would earn from phasing out corticosteroid injections for the treatment of tennis elbow can be calculated as:

$$\text{Savings (SEK)} = \text{number of injections} \times 340 \text{ SEK/injection}$$

The importance of informing patients of potential negative consequences

The injection of corticosteroids to treat tennis elbow affects the patient's condition negatively over the long term and thus can be regarded as harmful. Spending resources on this treatment is ethically questionable from both patient and societal perspectives. Phasing out corticosteroid injections for the treatment of tennis elbow would allow resources to be reallocated to more effective care.

Divestment is associated with a change in routines. As corticosteroid injections relieve the symptoms of tennis elbow in the short term, it may be difficult for doctors to deny this treatment to patients. If corticosteroid injections continue to be made available, it is important that patients to be informed of the long-term negative consequences, to assure that each patient has the opportunity to make an informed decision.

¹ Based on the average salary of a family doctor at 57,900 per month

Other treatments for tennis elbow

Tennis elbow can be treated with physiotherapy and/or non-selective anti-inflammatory pain medicines. SBU has not evaluated these treatment options.

References

1. Shiri R, Viikari-Juntura E. Lateral and medial epicondylitis: Role of occupational factors. *Best Pract Res Clin Rheumatol* 2011;25:43-57.
2. Statistiska centralbyrån. Nyckeltal för Sverige. [Cited 2013-03-07]. Available at: <http://www.scb.se/>
3. SBU. Kortikosteroidinjektioner vid tennisarmbåge (lateral epikondylit). Stockholm: Statens beredning för medicinsk utvärdering (SBU); 2010. SBU Kommenterar. <http://www.sbu.se/tennisarmbage>
4. <http://www.fass.se>

Project group

This "prioritization support" was compiled by **Emelie Heintz**, **Frida Mowafi** and **Pernilla Östlund** from SBU. This report was reviewed by Professor **Stefan Lohmander** from the Department of Orthopaedics at Lund University and Professor **Lars Sandman** from the Department of Ethics at the University of Borås.

www.sbu.se • registrator@sbu.se