

**Bo Xu**

BMedSci, MBBS(Hons), is an intern, St Vincent's Hospital, Melbourne, Victoria. greatbear227@hotmail.com

**Hershel Goldman**

BMedSci, MBBS, is a general practitioner, Noble Park, Victoria.

# Steroid injection in lateral epicondylar pain

What is the evidence for using steroid injection to treat lateral epicondylar pain in the general practice setting? In reviewing four randomised controlled trials, this article concludes that steroid injection is indicated if rapid pain relief is desired in the short term. The evidence for steroid injection in the long term is less clear.

**Case study**

Mr RW, 65 years of age, presented to his general practitioner with a 5 day history of painful left elbow. His work involved typing. There was no history of trauma or sporting injury and he was otherwise well. On examination there was localised tenderness over the left lateral epicondyle and pain on resisted extension of the left wrist. A clinical diagnosis of lateral epicondylar pain was made and the GP suggested steroid injection to improve the pain.

■ **In adults with lateral epicondylar pain, do steroid injections improve pain and recovery when compared to simple analgesia?**

**Method**

Two Medline searches were undertaken on 'lateral epicondylitis' and 'steroid injection' for the period 1950–2007. They were matched to medical subject heading (MeSH) and exploded to include related terms. The search parameters were: TS:mapexp=(lateral epicondylitis) and TS:mapexp=(steroid injection). The results of the two searches were combined. This yielded 19 results. Eight articles were irrelevant. Four articles were recent randomised controlled trials (RCTs).

**Results**

We reviewed these four RCTs. The general inclusion criteria were:

- pain and tenderness in lateral region of the elbow
- increasing pain with pressure over the lateral epicondyle and on resisted dorsiflexion of the wrist

Patients were excluded if they had:

- a history of inflammatory arthritis/trauma of the elbow
- previous treatment with steroid injections.

**First study**

One hundred and sixty-four patients with lateral epicondylar pain were randomised to: local steroid injection (methylprednisolone 20 mg plus lignocaine); simple analgesia (naproxen 500 mg twice per day for 2 weeks); or placebo. At 4 weeks, the majority randomised to local steroid injection were completely better or improved. This was statistically significantly greater than the other two groups. At 1 year, patients in each group had similar pain scores.<sup>1</sup>

**Second study**

One hundred and eighty-five patients with lateral epicondylar pain were randomised to: local steroid injection (triamcinolone 10 mg plus lignocaine); physiotherapy; or 'wait and see' policy. Each intervention

lasted 6 weeks. 'Wait and see' policy consisted of advice from the general practitioner and the prescription of simple analgesia (paracetamol or naproxen). At 6 weeks, steroid injections were the best therapy in terms of pain, elbow disability and patient satisfaction. At 26 and 52 weeks, physiotherapy produced the greatest improvement, followed by 'wait and see' policy. The long term outcomes of steroid injections were less satisfactory.<sup>2</sup>

### Third study

One hundred and twenty patients with lateral epicondylar pain were randomised to: local anaesthetic injection (lignocaine); or local steroid injection (1 mL triamcinolone) plus lignocaine. At 1 year, the majority of patients in both groups had complete pain relief.<sup>3</sup>

### Fourth study

Forty-eight patients with lateral epicondylar pain were randomised to: local steroid injection (triamcinolone 10 mg plus lignocaine); physiotherapy; local steroid injection plus physiotherapy; or observation. At 7 weeks, patients who had received local steroid injections were significantly better than the other three groups.<sup>4</sup>

## Discussion

All four RCTs used the term 'lateral epicondylitis' to describe patients who presented with pain and tenderness over the lateral epicondyle of the elbow. However, it should be noted that often there may not be objective evidence of inflammation. Hence, we have chosen the term 'lateral epicondylar pain'.

All four RCTs showed that steroid injections produced quick and significant pain relief for lateral epicondylitis in the short term. The long term outcomes of steroid injections are less clear. Hay et al<sup>1</sup> reported that at 1 year, steroid injections were similar to naproxen or placebo. Smidt et al<sup>2</sup> claimed that the long term outcomes of steroid injections may be poor due to a high number of relapses. The study by Tonk et al<sup>4</sup> did not follow up the patients beyond 7 weeks, while Altay et al<sup>3</sup> reported that local steroid injection produced excellent pain relief at 1 year.

### When should steroid injections be used?

The available literature suggests that in the long term, steroid injections are similar to, if not worse than, 'wait and see' management with simple analgesia and/or physiotherapy. Steroid injections may be indicated if the patient wants fast pain relief in the short term. The decision to use steroid injections in the case of Mr RW was appropriate given his desire for quick pain relief.

Conflict of interest: none declared.

### References

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