Efficacy of intra-articular steroid injection versus placebo in reducing pain in Carpal Tunnel Syndrome

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Introduction

- Approximately 1 in 1000 individuals in the general population suffer from Carpal Tunnel Syndrome (CTS) with a predilection in females.
- CTS is the most common of all focal entrapment mononeuropathies.
- Conservative management aimed at reducing pain have demonstrated variable efficacy.
- Side effects associated with oral analgesics has led to widespread use of intra-articular steroid injection, however, long term efficacy needs to be clarified.

Design

Evidence based review. PubMed search using key words “Carpal Tunnels Syndrome, Local steroid injection, pain, symptoms severity, entrapment neuropathy”. 46 results, narrowed to three randomized controlled trials. Evidence based reviews of three RCT

Patient Population

Patients that were 18 years or older and had typical symptoms of CTS according to the Katz diagnostic criteria with symptoms refractory to activity modification and use of a night splint.

Patients with nerve conduction test results that showed median neuropathy at the wrist and no secondary causes.

Setting: Outpatient

Patients were randomized into either receiving intra-articular steroids or placebo.

Trials: Studies were double blind randomized control trials. Patients were then followed at 2 weeks for study 1, 10 weeks for study 2 and 4 weeks for study 3.

Two main widely validated/reliable scales were used to measure pain: The Boston Carpal Tunnel Symptom Severity Questionnaire.

Major Inclusion Criteria

- 18 years or older.
- Typical symptoms of CTS according to the Katz diagnostic criteria.

Major Exclusion Criteria

- Recent use of intra-articular steroid injection, surgery or signs of thenar atrophy.
- Wrist pain not due to any secondary causes.

Conclusion

Corticosteroid injections for CTS are effective regarding short-term outcomes when compared to placebo injections. There is insufficient evidence for long term efficacy of intra-articular steroids in reducing CTS related pain.

Clinical Recommendations

- For patients 18-80 yo with CTS, steroid injection does provide statistical clinical significance short-term efficacy for symptom severity.

References


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