

# INPLASY PROTOCOL

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No conflict of interest.

## Extracorporeal shock wave therapy versus local corticosteroid injection for the treatment of carpal tunnel syndrome: a meta-analysis

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**Review question / Objective:** Compare the effects of ESWT and LCI therapies.

**Condition being studied:** CTS is recognized as one of the most extensive occupational health conditions. ESWT is a new technology applied in CTS treatment. Some randomized controlled trials have compared the effects of ESWT and LCI, and the results show that ESWT is better than LCI in the treatment of CTS.

**Information sources:** PubMed, Embase, Cochrane Library, CNKI, Wanfang electronic databases and references of the included literatures

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 August 2020 and was last updated on 07 August 2020 (registration number INPLASY202080025).

### INTRODUCTION

**Review question / Objective:** Compare the effects of ESWT and LCI therapies.

**Condition being studied:** CTS is recognized as one of the most extensive occupational

health conditions. ESWT is a new technology applied in CTS treatment. Some randomized controlled trials have compared the effects of ESWT and LCI, and the results show that ESWT is better than LCI in the treatment of CTS.

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## METHODS

**Participant or population:** The subjects of the study are patients with a clear diagnosis of CTS, regardless of age, gender, and nationality.

**Intervention:** Extracorporeal shock wave therapy.

**Comparator:** Local corticosteroid injection.

**Study designs to be included:** Randomized controlled trial.

**Eligibility criteria:** The research type is a published clinical randomized controlled trial. The subjects of the study are patients with a clear diagnosis of CTS, regardless of age, gender, and nationality. Take ESWT as an intervention measure and CTS as a control measure, and complete comparison data between ESWT and CTS can be obtained.

**Information sources:** PubMed, Embase, Cochrane Library, CNKI, Wanfang electronic databases and references of the included literatures.

**Main outcome(s):** VAS scores, BQ scores, sensory distal latency, motor distal latency, compound muscle action potential amplitude, sensory nerve action potential amplitude, nerve conduction velocity of sensory nerve.

**Quality assessment / Risk of bias analysis:** The Cochrane risk bias tool was used for quality evaluation. The tool included seven aspects of evaluation: random sequence generation, allocation hiding, blinding of participants and implementers, blinding of outcome evaluators, and incomplete Outcome data, selective reporting, and other biases.

**Strategy of data synthesis:** Use Review Manager software for statistical analysis. Statistical heterogeneity is judged by using Q value statistics combined with I<sup>2</sup> statistics. Continuous variables are reported as weighted average difference and 95% confidence interval, while

dichotomy variables are reported as odds ratio and 95% CI.

**Subgroup analysis:** This study did not do subgroup analysis.

**Sensibility analysis:** For the heterogeneous outcome indicators, the sensitivity was tested by eliminating the literature one by one.

**Country(ies) involved:** China, Thailand, Egypt, Korea.

**Keywords:** extracorporeal shock wave therapy, local corticosteroid injection, carpal tunnel syndrome.

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