INPLASY PROTOCOL

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None declared.

Spinal cord stimulation for treatment of painful diabetic neuropathy: protocol for a meta-analysis

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Review question / Objective: **To investigate the efficacy and safety of spinal cord stimulation (SCS) for treatment of painful diabetic neuropathy(PDN).**
Condition being studied: **SCS was proven to be effective on reduce pain in patients with neuropathic pain, such as chronic low back pain. Recently, several RCTs focused on SCS for PDN, while the results are inconclusive.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 October 2022 and was last updated on 15 December 2022 (registration number INPLASY2022100028).

INTRODUCTION

Review question / Objective: **To investigate the efficacy and safety of spinal cord stimulation (SCS) for treatment of painful diabetic neuropathy(PDN).**

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METHODS

Search strategy: **MEDLINE, Embase, CENTRAL, and ClinicalTrials.gov were searchde for studies published before September 1, 2022. Various keywords were used: spinal cord stimulation, diabetic**

peripheral neuropathy, painful diabetic neuropathy.

Participant or population: PDN for more than 1 year, and VAS > 5cm.

Intervention: SCS with conventional medical treatment.

Comparator: Conventional medical treatment only.

Study designs to be included: RCT.

Eligibility criteria: Comment, letters, case reports, reviews, or research without extractable data.

Information sources: MEDLINE, Embase, Cochrane, and clinicalTrials.gov

Main outcome(s): VAS, participants with 50% pain relief.

Additional outcome(s): EQ-5D and EQ-VAS.

Quality assessment / Risk of bias analysis: The risk of bias were assessed with Cochrane Collaboration tool.

Strategy of data synthesis: Review Manager 5.3 was used. risk ratio or mean difference was analyzed with 95% confidence intervals. P < 0.05 was statistically significant.

Subgroup analysis: NA.

Sensitivity analysis: Cochrane's Q test and I2 were used to explore heterogeneity. Random-effects model was used for P ≤0.1 and I2 ≥ 50%. Fixed-effects model was used for P > 0.1 and I2 < 50%.

Language restriction: English.

Country(ies) involved: China.

Keywords: pain; painful diabetic neuropathy; spinal cord stimulation.

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