INPLASY PROTOCOL

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Conflicts of interest:
None.

Comparative efficacy and safety of different drugs for the therapy of adults with neuropathic pain after spinal cord injury: a network meta-analysis

Xie, P[1]; Ling, H[2]; Su, H[3].

Review question / Objective: **What are the efficacy and safety of drugs for the therapy of adults with neuropathic pain after spinal cord injury? We aim to generate a clinically useful summary of the interventions based on their efficacy.**
Condition being studied: **Neuropathic pain after spinal cord injury, and its treatment using different remediation therapy. Pharmacotherapy is the general term for a kind of acesodyne. Its main goal is the remediation of refractory pain.**
Information sources: **Electronic databases, contact with authors, trial registers.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 July 2020 and was last updated on 15 July 2020 (registration number INPLASY202070061).

INTRODUCTION

Review question / Objective: **What are the efficacy and safety of drugs for the therapy of adults with neuropathic pain after spinal cord injury? We aim to generate a clinically useful summary of the interventions based on their efficacy.**

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METHODS

Search strategy: We searched the Cochrane Library, PubMed, Embase, MEDLINE, CBM from the date of their inception to Jan 21, 2020, with no language restrictions.The search terms “spinal cord injury” AND “neuralgias” AND “Therapy” AND “randomized controlled trial”carried out by combining subject words and free words.

Participant or population: We included double-blind, randomised controlled trials (RCTs) comparing drugs with placebo or another active drug as oral monotherapy for the therapy of adults (≥18 years old and of both sexes) with neuropathic pain after spinal cord injury according to SCI from A to D (American Spinal Injury Association [ASIA] impairment scale) suffering daily neuropathic pain lasting more than 1 months, and assessed pain intensity through NRS(an 11-point numerical scale, 0 no pain to 10 worst pain possible) or visual analog scale (VAS) score ≥4 (VAS, 0–10cm) or VAS score≥40(VAS, 0–100mm).

Intervention: Pharmacotherapy was the main intervention (e.g. analgetic drugs).

Comparator: Placebo or other active drugs.

Study designs to be included: We included randomised controlled trials (RCTs) comparing drugs with placebo or another active drug as oral monotherapy.

Eligibility criteria: We included double-blind, randomised controlled trials (RCTs) comparing drugs with placebo or another active drug as oral monotherapy for the therapy of adults (≥18 years old and of both sexes) with neuropathic pain after spinal cord injury according to SCI from A to D (American Spinal Injury Association [ASIA] impairment scale) suffering daily neuropathic pain lasting more than 1 months, and assessed pain intensity through NRS(an 11-point numerical scale, 0 no pain to 10 worst pain possible) or visual analog scale (VAS) score ≥4 (VAS, 0–10cm) or VAS score≥40(VAS, 0–100mm).

Information sources: Electronic databases, contact with authors, trial registers.

Main outcome(s): 1.Neuropathic pain after spinal cord injury according to SCI from A to D (American Spinal Injury Association [ASIA] impairment scale) suffering daily neuropathic pain lasting more than 1 months, and assessed pain intensity through NRS(an 11-point numerical scale, 0 no pain to 10 worst pain possible) or visual analog scale (VAS) score ≥4 (VAS, 0–10cm) or VAS score≥40(VAS, 0–100mm) 2.Adverse events.

Additional outcome(s): HAMA or HAMD.

Data management: Two authors will independently extract data. Any disagreement will be resolved by discussion until consensus is reached or by consulting a third author.The following data will be extracted: author, year of publication, country where the study was conducted, study period, original inclusion criteria, total number of people included in the study, doses of progesterone and time of application.

Quality assessment / Risk of bias analysis: Jadad scale and Cochrane bias risk assessment tool were used to evaluate the results, and the evaluation results were tabulated and analyzed.

Strategy of data synthesis: MD OR SMD for continuity variable; RR OR OR for classification variables.

Subgroup analysis: We will depend on excluding random factors, there may be differences in the characteristics of included cases, the formulation of intervention measures, and the study area.

Sensibility analysis: In view of the research characteristics (such as the quality level of methodology), the influence of some low-quality studies or different efficacy evaluation standards and statistical methods on the combined effect quantity was discussed. The focus was on the comparison between the combined effect

amount and the original effect quantity obtained by repeated meta-analysis.

Language: No limit.

Country(ies) involved: China.

Keywords: drugs, therapy, neuropathic pain, spinal cord injury, efficacy, safety.

Contributions of each author:
Author 1 - Peigen Xie - drafted the manuscript.
Author 2 - Haiqian Ling - The author provided statistical expertise.
Author 3 - Huiping Su - The author contributed to the development of the selection criteria, and the risk of bias assessment strategy.