INPLASY PROTOCOL

Efficacy of thermotherapy for herpes zoster and postherpetic neuralgia: a protocol for systematic review and meta analysis

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Review question / Objective: Does thermotherapy improve pain and rash healing in herpes zoster? Does thermotherapy prevent the incidences of post-herpetic neuralgia?**Condition being studied:** The efficiency of improve pain and rash healing in herpes zoster. Pain reduction and further incidences of postherpetic neuralgia will be observed.

Information sources: Study characteristics, details of the intervention and comparator used, outcome measures, results, and risk of bias ratings will be extracted by two individuals working independently, stored in Excel files and analyzed using RevMan 5.3 and Stata 13.0.

INTRODUCTION

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METHODS

Search strategy: PubMed, Web of Science, the Cochrane Library, CNKI, CBM, VIP Database, and Wanfang data will be searched. RCTs written in English and Chinese will be eligible for inclusion. A combination of keywords to be searched, including: 'thermotherapy', 'fire needle','moxibustion','herpes zoster' and 'postherpetic neuralgia'.

Participant or population: Patients with herpes zoster will be included, participants with other specific primary diseases will be excluded.

Intervention: Thermotherapy including moxibustion and fire needle.

Comparator: A western medicine control.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: Reported in Chinese or English, and meet the "PICOS", will be considered for inclusion in this overview.

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Main outcome(s): Total effective rate; Pain intensity (measured by Visual Analogue Scale or other scales). Recovery span of skin damage; The duration of the pain.

Additional outcome(s): Incidence of postherpetic neuralgia; Adverse events.

Quality assessment / Risk of bias analysis: Two reviewers will independently evaluate the methodological quality of included studies using the Cochrane Handbook's Risk of Bias Tool. Any disagreement will be resolved through discussion with the third reviewer.

Strategy of data synthesis: Data will be analyzed using Review Manager (RevMan) software. Heterogeneity between studies will be evaluated with p-value of $p < 0.1$ and the I^2 statistic. In case of substantial heterogeneity, the cause will be identified by analyzing subgroups and conducting a meta-regression. Publication bias will be explored using visual inspection of funnel plots for meta-analyses with 10 or more studies.

Subgroup analysis: Subgroup analysis will be conducted based on comparators, course of disease and duration of treatment. We also plan to do a subgroup analysis by age, gender and so on.

Sensibility analysis: A sensitivity analysis is conducted to assess the stability of results.It is conducted from different aspects including sample size, method quality, and data missing to evaluate its impact on the study. The system review and meta-analysis will be reused and inferior quality research will be excluded.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: thermotherapy, fire needle, moxibustion, herpes zoster and postherpetic neuralgia.

Contributions of each author:
Author 1 - Zhuang Li - The author established the search strategy, will independently accomplish the study selection, data extraction and assess the risk of bias.
Author 2 - Yalin She - The author established the search strategy, will independently accomplish the study selection, data extraction and assess the risk of bias.
Author 3 - Zhenke Luo - The author established the search strategy and will perform the data syntheses.
Author 4 - Zijun LIU - The author will Validate the data syntheses.
Author 5 - Jingchun Zeng - The author established the search strategy and will perform the data syntheses.