Fire needle combined with Traditional Chinese medicine for Postherpetic neuralgia: a protocol for systematic review and meta-analysis

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Review question / Objective: This study comprehensively searched the literature to further systematically evaluate the efficacy of Fire needle combined with Traditional Chinese medicine in the treatment of Postherpetic neuralgia, with a view to clinically treating Postherpetic neuralgia, alleviating its related clinical symptoms and preventing its further development, and providing the latest evidence-based medical evidence.

Condition being studied: Postherpetic neuralgia (PHN) refers to neuropathic pain lasting 1 month or more after herpetic rash has healed. It is diverse in nature and can present as cauterizing, electric shock, knife-cut, or needle-like pain, intermittent or persistent. And the course of the disease is long, which has a great impact on the quality of life of patients. At present, the clinical treatment of fire needle combined with Traditional Chinese medicine has achieved satisfactory clinical results. The purpose of this study is to systematically evaluate the effect of fire needle combined with Traditional Chinese medicine in treating post-herpetic neuralgia and relieving its pain symptoms.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 February 2022 and was last updated on 25 February 2022 (registration number INPLASY202220112).

INTRODUCTION

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METHODS

Participant or population: All cases included in the trial were patients with Postherpetic neuralgia and met the clinical diagnostic criteria.

Intervention: The treatment group was mainly Fire needle combined with Traditional Chinese medicine therapy.

Comparator: The comparison group consisted of any intervention other than Fire needle combined with Traditional Chinese medicine therapy.

Study designs to be included: A randomized controlled trial (RCT) study on Fire needle combined with Traditional Chinese medicine therapy treatment of Postherpetic neuralgia, published in any language.

Eligibility criteria: Types of study: All randomized controlled trials (RCTs) study on Fire needle combined with Traditional Chinese medicine therapy treatment of Postherpetic neuralgia. Others such as case reports, animal experiments, non-RCTs, or RCT protocol will be excluded.

Information sources: 8 electronic databases including PubMed, Web of Science, the Cochrane Database, EMBASE, China Knowledge Network (CNKI), Wanfang Data Knowledge Service Platform, VIP Chinese Science and Technology Periodical Database (VIP) and China Biomedical Literature (CBM) Database.

Main outcome(s): 1. Total clinical response rate 2. Visual analogue scale (VAS) 3. Adverse reactions.

Quality assessment / Risk of bias analysis: Two reviewers performed rigorous methodological quality evaluation of the included studies with reference to the Cochrane Collaboration Bias Risk Assessment Tool for the extracted methodological features.

Strategy of data synthesis: Meta analysis was performed using RevMan5.4 provided by the Cochrane collaboration network. Relative risk (RR) was used for the two categorical variables, and mean difference (MD) was used for the continuous variables. Both were expressed with 95% confidence intervals (CI). The heterogeneity test between the results of the included studies was performed using the $I^2$ test. The $I^2$ value reflects the proportion of the total variation in the effect size due to the existence of heterogeneity. ($I^2 > 50\%$, indicating that heterogeneity is more obvious. If there is no obvious heterogeneity between the research results ($I^2 50\%$), the source of the heterogeneity is analyzed first, which may lead to heterogeneity Factors for subgroup analysis. If statistical heterogeneity exists in each subgroup without clinical heterogeneity, a random effects model is used for analysis. If the heterogeneity is too large and the results cannot be combined, a descriptive analysis is used and a sensitivity analysis is performed if necessary.

Subgroup analysis: Subgroup analysis will be handled according to the differences in patient conditions, control and so on.

Sensitivity analysis: Sensitivity analyses will be performed to verify the robustness of the review conclusions. The impacts of study design, methodological quality, and missing data will be evaluated. Sensitivity
Analyses were planned by studies considered being at low risk of bias.

Country(ies) involved: China.

Keywords: Fire needle combined with Traditional Chinese medicine; Postherpetic neuralgia; systematic review; protocol.

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