

INPLASY PROTOCOL

To cite: Yan et al. Fire needle therapy for neurodermatitis: Protocol for a systematic review and meta-analysis. Inplasy protocol 202140078. doi: 10.37766/inplasy2021.4.0078

Received: 13 April 2021

Published: 14 April 2021

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Review Stage at time of this submission: Data analysis.

Conflicts of interest:
None declared.

Fire needle therapy for neurodermatitis: Protocol for a systematic review and meta-analysis

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Review question / Objective: The purpose of this systematic review is to evaluate the efficacy and safety of fire acupuncture in the treatment of neurodermatitis.

Condition being studied: According to traditional Chinese medicine, neurodermatitis is caused by wind, dampness and heat in the skin or by weathering and dryness caused by blood deficiency for a long time. It is often related to emotional fluctuations. Fire acupuncture therapy is one of the external treatment methods of traditional Chinese medicine, mainly through the use of alcohol lamp to burn the needle body red quickly into the local lesions and lesions of a treatment method, has the effect of dispersing cold and dehumidification, dispersing poison, warming the meridian and promoting blood circulation. In the treatment of neurodermatitis with fire acupuncture, the acupoints were mainly pricked at the skin lesions, and the density and depth of the pricking were increased accordingly for the severe mossy sites.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 April 2021 and was last updated on 14 April 2021 (registration number INPLASY202140078).

INTRODUCTION

Review question / Objective: The purpose of this systematic review is to evaluate the efficacy and safety of fire acupuncture in the treatment of neurodermatitis.

Rationale: Neurodermatitis is a chronic cutaneous nerve functional disease characterized by paroxysmal pruritus and bryophytosis. It is one of the common diseases in clinical dermatology. According to the skin lesions of the disease, it can be divided into localized neurodermatitis and

disseminated neurodermatitis. The former is usually localized in the neck. The latter skin lesion is more extensive, the head and neck, limbs, trunk can appear. Most of the patients because of emotional excitement, anxiety, depression, repeated local stimulation and eating spicy and stimulating food and morbidity or aggravation, so that the quality of life of patients by a significant impact. Long-term repeated drug use, side effect is quite large. As one of the external treatment methods of traditional Chinese medicine, fire needle is easy to operate, safe and effective, and widely used in clinic. The purpose of this systematic review is to evaluate the efficacy and safety of fire acupuncture in the treatment of neurodermatitis.

Condition being studied: According to traditional Chinese medicine, neurodermatitis is caused by wind, dampness and heat in the skin or by weathering and dryness caused by blood deficiency for a long time. It is often related to emotional fluctuations. Fire acupuncture therapy is one of the external treatment methods of traditional Chinese medicine, mainly through the use of alcohol lamp to burn the needle body red quickly into the local lesions and lesions of a treatment method, has the effect of dispersing cold and dehumidification, dispersing poison, warming the meridian and promoting blood circulation. In the treatment of neurodermatitis with fire acupuncture, the acupoints were mainly pricked at the skin lesions, and the density and depth of the pricking were increased accordingly for the severe mossy sites.

METHODS

Search strategy: Terms and electronic databases included in the review. Studies search will conduct on the following electronic databases: Cumulative Index to Nursing and Allied Health Literature (EBSCO CINAHL Plus), the Cochrane Library, Web of Science, PubMed, Ovid MEDLINE; Ovid EMBASE, China BioMedical Literature (CBM), China National Knowledge Infrchrome1astructure (CNKI),

and Wanfang database. In addition, we will search clinical trials registries: the Cochrane Central Register of Controlled Trials, the Cochrane Wounds Specialised Register, US National Institutes of Health Ongoing Trials Register Clinical Trials, World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP), EU Clinical Trials Register. All the databases will be searched from their inception until June 2021, without restrictions for language, or publication on status. Searching through a combination of medical subject headings and text words. Key words include: neurodermatitis, Lichen Simplex Chronicus, lichen simplex, dermatoneurosis, neurodermatosis, neurodermatitides, she lingchuang, fire needle therapy, fire needle, burning red acupuncture, fire acupuncture, randomized controlled trials, controlled clinical trials, clinical trials, trials.

Participant or population: The Participants in the study must meet both the clinical diagnostic criteria for neurodermatitis, There are no restrictions on race, age, gender, lifestyle, education level.

Intervention: Different types of interventions will be included (e.g single western medicine, traditional chinese herbal; other combination therapy, etc); Other types of interventions such as fire needle will be excluded.

Comparator: The control group was treated with any other intervention.

Study designs to be included: We will include published and unpublished Randomized controlled trials (RCTs). No date or language restrictions will be applied. Cross-over trials that reported outcome data at the end of the first treatment period and prior to cross-over will also be included.

Eligibility criteria: All RCTs of fire needle treatment for neurodermatitis will be included, regardless of whether blind

method is used. Other types of studies such as non-RCTs will be excluded.

Information sources: Describe all intended information sources (e.g., electronic databases, contact with authors, trial registers, or grey literature. Studies search will conduct on the following electronic databases: Cumulative Index to Nursing and Allied Health Literature (EBSCO CINAHL Plus), the Cochrane Library, Web of Science, PubMed, Ovid MEDLINE; Ovid EMBASE, China BioMedical Literature (CBM), China National Knowledge Infrastructure (CNKI), and Wanfang database. In addition, we will search clinical trials registries: the Cochrane Central Register of Controlled Trials, the Cochrane Wounds Specialised Register, US National Institutes of Health Ongoing Trials Register Clinical Trials, World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP), EU Clinical Trials Register. All the databases will be searched from their inception until March 2021, without restrictions for language, or publication on status.

Main outcome(s): Main outcomes include clinical efficacy and adverse reactions such as infection, redness, burning pain, blisters, pigmentation, etc. The total clinical effective rate is obtained by the addition of cure rate and apparent effective rate. As an important index to evaluate the severity of skin manifestations of neurodermatitis, the range of skin lesions is stable and reliable, which is better than other evaluation indexes.

Additional outcome(s): 1. Itchy (VAS). 2. Symptom score according to the evaluation standard of Chinese medicine. 3. Dermatological quality of life index (DLQI).

Data management: Describe the mechanism used to manage records and data. We will export the documents retrieved from the database to EndNote X9 software, and will use it to manage and delete duplicates. We will establish the document information extraction table in

pre-designed Excel including the following information from each included study: article title, author, publication time, demographic characteristics of the subjects, sample size, allocation method, interventions in the treatment group and control groups, course of treatment, severity of disease, adverse events, data analysis strategy and outcome indicators.

Quality assessment / Risk of bias analysis: Describe the method of quality assessment in primary studies. Two review authors will independently use Cochrane's Risk of Bias tool to appraise risk of bias of each included study. Any discrepancy between two reviewers will be resolved by discussion and a third reviewer where necessary.

Strategy of data synthesis: Data will be synthesized with a pairwise meta-analysis in a frequentist framework by Review Manager (RevMan version 5.3). The Bayesian network meta-analysis will be conducted in the WinBUGS software (Version 1.43, Medical Research Council Biostatistics Unit, Cambridge, UK) and STATA software (Version 14.2). And the Markov Chains Monte Carlo simulation technique will be used to generate samples.

Subgroup analysis: Which type of study or participant will be included in each group. According to the different sources of heterogeneity, subgroup analysis can be carried out, such as treatment time, course of disease and age.

Sensitivity analysis: Sensitivity analysis will be carried out at the test results with obvious heterogeneity, such as treatment time, course of disease, basic disease, gender, age, and so on.

Country(ies) involved: This systematic review and network meta-analysis will be conducted in China.

Keywords: Fire needle; neurodermatitis; protocol; systematic review.

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Support: The Ministry of Science and Technology of People's Republic of China (Grant number: 2018YFC1705303), Postgraduate Innovation Special Fund Project of Jiangxi Provincial (Grant No.YC-2020-S397), and Postgraduate Innovation Special Fund Project of Jiangxi University of Traditional Chinese Medicine School(Grant No.JZYC20S23).