

INPLASY PROTOCOL

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None declared.

INTRODUCTION

Review question / Objective: Observed the efficacy of acupoint application or the combination of acupoint application and other intervention measures compared with no acupoint application or other single methods in the treatment of constipation after stroke, we aim to the efficacy of

The effectiveness of acupoint herbal patching for constipation after stroke: a protocol for systematic review and meta-analysis

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Condition being studied: The educational background, age and professional structure of the project team are reasonable. The members are young and middle-aged talents with rich clinical and scientific research experience. The personnel composition can meet the requirements of completing the project.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 January 2022 and was last updated on 13 January 2022 (registration number INPLASY202210065).

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reasonable. The members are young and middle-aged talents with rich clinical and scientific research experience. The personnel composition can meet the requirements of completing the project.

METHODS

Participant or population: Participants must have a diagnosis of constipation after stroke, constipation needs to be consistent with ROME II or III or IV without limitations related to gender, age, race, study area, and education status.

Intervention: Patients received acupoint herbal patching or combined with another intervention, regardless of herbal regimen, acupoints selected, patching time.

Comparator: Patients received no treatment or another intervention.

Study designs to be included: Randomized controlled trials (RCTs).

Eligibility criteria: Inclusion criteria were: (1) participants who had constipation after stroke; (2) acupoint herbal patching as the intervention; (3) randomized controlled trials (RCT); (4) clinical effective rate. Exclusion criteria were: (1) studies comparing the application, frequency or duration of different acupoints; (2) conference abstracts without a full published article; (3) duplicated data or data that cannot be extracted.

Information sources: We will search articles in 8 electronic databases including the Cochrane Central Register of Controlled Trials, PubMed, Embase, the Web of Science, China National Knowledge Infrastructure, the Chinese Biomedical Literature Database, Wanfang Database and the Chinese Scientific Journal Database from their inception to November 1, 2021. The search string will be built as follows: (constipation after stroke OR apoplexia OR stroke) AND (constipation OR difficult defecation) AND (acupoint application OR acupoint sticker). Reference list of all selected articles will independently be screened to identify

additional studies left out in the initial search. Any disagreement will be resolved by discussion until consensus is reached or by consulting a third researcher (ZhD). We will also contact the original authors of papers via email or telephone if possible.

Main outcome(s): Clinical effective rate. Improvement of clinical symptoms including complete spontaneous bowel movements (CSBMs).

Quality assessment / Risk of bias analysis: Two review authors (Yuan Y and Gao Y) will independently evaluate each included study and will follow the domain-based evaluation as developed by the Cochrane Handbook for Systematic Reviews of Interventions. They will assess the following domains: (1) selection bias (random sequence generation and allocation concealment), (2) performance bias (blinding of participants and personnel), (3) detection bias (blinding of outcome assessment), (4) attrition bias (incomplete outcome data), (5) reporting bias (selective reporting), (6) other bias (such as pre-sample size estimation, early stop of trial). Each domain will be divided into three categories: 'low risk', 'high risk', or 'unclear risk'. We will use the GRADE approach to assess the overall quality of evidence supporting the primary outcomes. The overall quality of the evidence for each outcome will be determined after considering each of these factors and graded as: high, moderate, low, very low.

Strategy of data synthesis: We will analyze the data with Rev Man software (Version 5.4) provided by The Cochrane Collaboration. A meta-analysis using random or fixed effects models will be conducted to summarize the data. Continuous data will be pooled and presented as mean differences or standardized mean difference with their 95% CI. Dichotomous data will be pooled and expressed as risk ratio with their 95% CI. We will interpret it using the following criteria: I² values of 25% is considered low levels of heterogeneity, 50% indicated moderate levels, and 75% indicated high levels. Since low or moderate heterogeneity suggests little variability

among these studies, the data will be analyzed in a fixed-effects model. When significant heterogeneity occurs among the studies ($P < .05$, $I^2 > 50\%$), a random-effect model will be performed to analyze the data.

Subgroup analysis: Subgroup analysis will be conducted to evaluate the specific influence of intervention type, age, course of disease, treatment duration on pooled results.

Sensitivity analysis: Sensitivity analysis will be performed to examine the robustness of the results by eliminating low quality trials.

Country(ies) involved: China.

Keywords: constipation after stroke; acupoint herbal patching; difficult defecation after stroke; acupoint sticker; protocol; meta-analysis.

Contributions of each author:

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