INPLASY PROTOCOL

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None declared.

Efficacy and safety of mirror therapy combined with acupuncture in the treatment of poststroke hemiplegia: a systematic review and meta-analysis protocol

Huang, YF[1]; Li, K[2]; Huang, SQ[3].

Review question / Objective: **To systematically evaluate the efficacy of mirror therapy combined with acupuncture versus conventional rehabilitation and other treatments alone for hemiplegia.**
Condition being studied: **Stroke is a syndrome of limited or generalized cerebral deficits due to acute cerebral circulatory disorders. It is one of the common cranial lesions with long latency period, rapid on set high disability rate and high mortality rate, and the incidence of stroke in China is increasing year by year with the accelerated aging of the population and the change of people's lifestyle, of which about 80% are ischemic strokes. Local cerebrovascular lesions in patients with ischemic stroke affect the neurological function of the body, such as hemiplegia, and according to statistics, 50%of patients have reduced mobility due to hemiplegia, which not only seriously affects the quality of life of patients, but also brings a huge burden to families and society.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 October 2022 and was last updated on 25 October 2022 (registration number INPLASY2022100100).

INTRODUCTION

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METHODS

Participant or population: Patients with hemiplegia or limb dyskinesia after stroke.

Intervention: Acupuncture and mirror therapy.

Comparator: Routine acupuncture , Mirror therapy, Routine rehabilitation training , Western medicine.

Study designs to be included: Randomized controlled trials (RCTS) evaluating the efficacy and safety of mirror therapy combined with acupuncture will be included.

Eligibility criteria: Subjects: Patients with hemiplegia after stroke, age and sex were not restricted.Intervention measures: Acupuncture or electroacupuncture combined with mirror therapy was used as an intervention The control group was treated with conventional acupuncture, sham acupuncture, mirror therapy, western medicine and other treatment methods.Outcome measures: the Fugl-Meyer Assessment (FMA), modified Barthel Index (MBI).

Information sources: We will perform a comprehensive literature search from the following electronic databases: Pubmed, Embase, Cochrane Library, Web of Science, Chinese Biomedical Literatures Database(CBM), China National Knowledge Infrastructure (CNKI), WangFang Database(WF), Chinese Scientifific Journal Database(VIP).In addition, we will search for eligible ongoing or unpublished trials through the WHO international clinical trials registry platform and the Chinese clinical registry.

Main outcome(s): The Fugl-Meyer Assessment (FMA).

Additional outcome(s): Modified Barthel Index (MBI).

Quality assessment / Risk of bias analysis: According to the improved Jadad scoring scale, the quality of the included literature was evaluated. 1-3 were classified as low quality and 4-7 as high quality.Risk of bias(quality) assessment Included randomised studies will be assessed for risk of bias by two independent raters(LK/ZXH) using the Cochrane Collaboration's tool for assessing risk of bias in randomised trials. Any disagreements will be resolved through discussion or consultation with a third reviewer(XJ) The risk of bias in each study was assessed as per the Cochrane Handbook for systematic reviews using risk of bias tables on RevMan5.4.The tables addressed the following seven sources of bias:1.Random sequence generation; 2.Allocation concealment; 3.Blinding of participants and personnel; 4.Blinding of outcome assessment; 5.Incomplete outcome data; 6.Selective reporting; 7.Other biases.

Strategy of data synthesis: RevMan 5.4 software (Cochrane Collaboration) was used for the meta-analysis. Dichotomous data were reported as risk ratio (RR) with 95% confidence intervals (CI), while continuous data were reported as standardized mean difference (SMD) with 95% CIs. The Higgins I^2 test was used to test heterogeneity with a significance level set at 50%.If the I2 value is less than 50%, that indicates slight or no statistical heterogeneity in these studies. Once the I2 value surpasses 50%, it means studies with high heterogeneity, and we will carry out sensitivity analysis or subgroup analysis for finding the possible reasons.

Subgroup analysis: If the necessary data are available, subgroup analysis will be carried out according to different factors as

follows: 1. Control interventions (eg, sham/placebo acupuncture,massage ,no treatment, or non-TCM treatment). 2.Outcome indicators (eg,the Fugl-Meyer Assessment (FMA), modified Barthel Index (MBI). We will perform subgroup analysis based on vario) us study characteristics and sample size, such as study type, study quality, adjustment (or not) for confounders.

Sensitivity analysis: If the necessary data are available, subgroup analysis will be carried out according to different factors as follows: 1. Control interventions (eg, sham/placebo acupuncture,massage ,no treatment, or non-TCM treatment). 2.Outcome indicators (eg, Numerical Rating Scale,Lysholm knee scoring scale) We will perform subgroup analysis based on various study characteristics and sample size, such as study type, study quality, adjustment (or not) for confounders.

Country(ies) involved: China.

Keywords: Stroke, Hemiplegia, acupuncture, Mirror therapy, protocol, systematic review, Meta-analysis.

Contributions of each author:

Author 1 - Yufeng Peng - The author drafted and improved the manuscript.
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Author 2 - Kai Li - Revise this protocol; search strategy.
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Author 3 - Shouqiang Huang - Data collection; analysis of results.
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