INPLASY

# Comparison of the effectiveness of different acupuncture methods combined with rehabilitation training in the treatment of shoulder-hand syndrome after stroke: a systematic review and network Meta-analysis

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## ADMINISTRATIVE INFORMATION

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**Review Stage at time of this submission -** Completed but not published.

**Conflicts of interest -** None declared.

**INPLASY registration number:** INPLASY2024100129

**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 October 2024 and was last updated on 30 October 2024.

## INTRODUCTION

**Review question / Objective** P: People with shoulder-hand syndrome after stroke I: acupuncture combined with rehabilitation training C: acupuncture methods different from the intervention combined with rehabilitation training/ rehabilitation only O: fugl-meyer upper extremity motor function rating scale, VAS scale, and effectiveness rate S: RCT test.

**Condition being studied** Shoulder hand syndrome (SHS), also known as Reflex Sympathetic Dystrophy (RSD), is a syndrome whose main symptoms include pain, swelling, vasodilatory instability, and contracture. Epidemiologic studies have shown that the incidence of stroke is gradually increasing with the aging of the population, and SHS can be combined with myocardial infarction and traumatic shoulder disorders, and about 70% of SHS is post-stroke. Studies have shown that shoulder-hand syndrome symptoms last for a long time and cannot be self-healed, which seriously affects the quality of life and social participation of patients, and imposes an economic burden on patients and families and even causes psychological disorders.

## METHODS

**Search strategy** Pubmed、Embase、Cochrane Library、China National Knowledge Infrastructure（CNKI）、Wanfang database. 采用主题词与自由词结合的方式进行检索。中文检索词：“脑卒中”、“肩手综合征”、“复杂区域疼痛综合征”、“反射性交感神经营养不良综合征”、“针灸”、“针刺”、“火针”、“浮针”、“温针灸”、“电针”、“干针”、“眼针”、“耳针”等；英文检索词：“Stroke”、“Reflex Sympathetic Dystrophy"、” Type I Complex Regional Pain Syndrome”、 “Acupuncture”等.

**Participant or population** (1) Stroke patients diagnosed by CT or MRI or meeting 《the Chinese Guidelines for the Diagnosis and Treatment of Cerebral Hemorrhage (2019)》 and other similar criteria (2) SHS meeting the description of SHS in 《the Chinese Guidelines for Early Rehabilitation and Treatment of Stroke 》or other similar assessment criteria. (3) There is no restriction on age, race, gender, disease duration, or stage of SHS.

**Intervention** The intervention group used acupuncture combined with conventional rehabilitation.

**Comparator** The control group was treated with conventional rehabilitation or other acupuncture combined with rehabilitation other than the intervention group, except that all other treatments had to be the same for both groups.

**Study designs to be included** RCT.

**Eligibility criteria** Exclusion criteria: (1) non-randomized controlled trials, conferences, reviews, Meta-analyses, dissertations, animal experiments, and repetitive publications; (2) no clear diagnostic criteria, treatment protocols, and non-post-stroke patients with shoulder-hand syndrome; (3) unknown or non-comparable baseline conditions; (4) articles without any of the above outcome metrics or with missing endpoints; (5) non-Chinese and English literature; and (6) full text was not available.

**Information sources** Pubmed、Embase、Cochrane Library、China National Knowledge Infrastructure（CNKI）、Wanfang database.

**Main outcome(s)** Fugl-meyer Upper Extremity Motor Function Scale (FMA), total score 66, the higher the score, the better the patient's upper extremity functioning VAS score (Visual Analog Scale): a tool used to assess pain, with a 10-point scale, with a score of 0 representing no pain and a score of 10 representing intolerable, severe pain Efficient.

**Quality assessment / Risk of bias analysis** Assessing the quality of literature using ROB 2.0.

**Strategy of data synthesis** Network Meta-analysis was performed using a probabilistic framework based on Stata16.0; dichotomous variables were expressed using Relative Risk (RR) and continuous variables were expressed using Mean Difference (MD) and 95% confidence intervals as effect sizes, and $p<0.05$ was used as the condition for the existence of statistical differences. The evidence network was mapped by Stata 16.0, and overall and local inconsistency tests were performed when there were closed loops in the evidence network; league tables were used to show the results of two-by-two comparisons, and the area under the cumulative ranking curve was plotted to rank the interventions; when there were ≥10 included literatures, funnel plots were plotted to compare the publication bias and small-sample effects.

**Subgroup analysis** No.

**Sensitivity analysis** No.

**Country(ies) involved** China.

**Keywords** Stroke; Shoulder-hand syndrome; Acupuncture; Network meta-analysis.

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