INPLASY PROTOCOL

To cite: Pu et al. Meta analysis of electro-acupuncture in the treatment of spastic paralysis of lower limbs with foot varus or foot drop after stroke. Inplasy protocol 2022100054. doi:

10.37766/inplasy2022.10.0054

Received: 14 October 2022

Published: 14 October 2022

Corresponding author: Pu Tong

puwilliam@hotmail.com

Author Affiliation:

Hunan University of Traditional Chinese Medicine.

Support: National Natural Science Found.

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

Conflicts of interest: None declared.

Meta analysis of electro-acupuncture in the treatment of spastic paralysis of lower limbs with foot varus or foot drop after stroke

Pu, T¹; Huang, LX²; Yi, LZ³; Zhan, S⁴; Huang, HY⁵; Chen, RX⁶; Guo B⁷; Liu, WA⁸; Yue, ZH⁹.

Review question / Objective: The efficacy of electroacupuncture in the treatment of spastic paralysis of lower limbs with foot varus or foot drop after stroke.

Condition being studied: The patient has cerebral hemorrhage or cerebral infarction; The local clinical manifestations of the affected limb were foot varus with droop or plantar flexion; The dorsiflexion and valgus of the affected limb can not be or weakened, the toe flexes and adducts, and can not move freely; No local traumatic infection or peripheral vascular disease.

Information sources: Pub Med, EMBASE, Cochrane Library, web of science, EBSCO, Sino Med, CNKI, Wanfang and VIP databases.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 October 2022 and was last updated on 14 October 2022 (registration number INPLASY2022100054).

INTRODUCTION

Review question / Objective: The efficacy of electroacupuncture in the treatment of spastic paralysis of lower limbs with foot varus or foot drop after stroke.

Condition being studied: The patient has cerebral hemorrhage or cerebral infarction; The local clinical manifestations of the affected limb were foot varus with droop or plantar flexion; The dorsiflexion and valgus of the affected limb can not be or

weakened, the toe flexes and adducts, and can not move freely; No local traumatic infection or peripheral vascular disease.

METHODS

Participant or population: Baseline characteristics such as age and sex are not limited, but they should be comparable.

Intervention: Intervention method: In the electroacupuncture group, electroacupuncture or electroacupuncture+ basic treatment or electroacupuncture+other treatments were applied, with unlimited treatment time and course. In the electroacupuncture group, electroacupuncture or electroacupuncture+basic treatment or electroacupuncture+other treatments were applied, and the time and course of treatment were unlimited. The control group was given blank control or basic treatment or other treatments.

Comparator: The control group was given blank control or basic treatment or other treatment in the electroacupuncture group, electroacupuncture or electroacupuncture+basic treatment or electroacupuncture+other treatments were applied, and the time and course of treatment were unlimited. The control group was given blank control or basic treatment or other treatments.

Study designs to be included: Randomized controlled trials will be included.

Eligibility criteria: None.

Information sources: Pub Med, EMBASE, Cochrane Library, web of science, EBSCO, Sino Med, CNKI, Wanfang and VIP databases.

Main outcome(s): Fugl Meyer lower limb motor function rating scale; the modified Ashworth scale; Modified Barthel Index; Berg Balance Scale; Tinetti gait analysis scale; ankle varus angle; clinical efficacy.

Quality assessment / Risk of bias analysis: Two reciewers will independently assesses the quality of the selected studies according to the Cochrane Collaboration's tool for randomized controlled trials. Items will be evaluated in three categories: Low risk of bias, unclear bias, and high risk of bias. The following characteristics will be evaluated: Random sequence generation (selection Bias) Allocation concealment (selection bias) Blinding of participants and personnel (performance bias) Incomplete outcome data (attrition bias) Selective reporting (reporting bias) Other biases Results from these questions will be graphed and assessed using Review Manager 5.3.

Strategy of data synthesis: Meta analysis was conducted with R language. Fugl Meyer lower limb motor function rating scale, modified Ashworth scale, modified Barthel index, Berg Balance Scale (BBS), Tinetti gait analysis scale, and ankle varus angle are the measurement data, so weighted mean difference (WMD) is used as the index of efficacy analysis. 95% confidence interval (CI) was calculated for all statistical analysis. The heterogeneity test was conducted for the research effect quantity of selected literature. When P ≥ 0.1 and I2 ≤ 50%, there was no significant heterogeneity between studies. The fixed effect model was used. When P50%, there was significant heterogeneity between studies. The random effect model was used to conduct sensitivity analysis by changing the data analysis model. If the outcome indicators include more than 8 papers included in the study, funnel chart analysis is conducted to determine the potential publication bias. Cochrane 5.3 bias risk assessment tool.

Subgroup analysis: We will consider subgroups such as jurisdiction, clinic type, and location.

Sensitivity analysis: The heterogeneity test was conducted for the research effect quantity of selected literature. When $P \ge 0.1$ and $I2 \le 50\%$, there was no significant heterogeneity between studies. The fixed effect model was used. When P50%, there was significant heterogeneity between studies. The random effect model was used to conduct sensitivity analysis by changing

the data analysis model. If the outcome indicators include more than 8 papers included in the study, funnel chart analysis is conducted to determine the potential publication bias.

Country(ies) involved: China.

Keywords: Stroke; Lower limb spasm; Electroacupuncture; Curative effect; Meta analysis.

Contributions of each author:

Author 1 - Pu Tong.

Author 2 - Huang Lixing.

Author 3 - Yi Lizhen.

Author 4 - Zhan Sheng.

Author 5 - Huang Huiyuan.

Author 6 - Chen Ruixue.

Author 7 - Guo Bin.

Author 8 - Liu Weiai.

Author 9 - Yue Zenghui.