

INPLASY

Meta-analysis of the improvement of upper limb motor function in patients with cerebral infarction by electrical stimulation

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ADMINISTRATIVE INFORMATION

Support - Innovation and Entrepreneurship Project for College Students.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2023100094

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 October 2023 and was last updated on 30 October 2023.

INTRODUCTION

Review question / Objective In recent years, the incidence of cerebral infarction has been increasing year by year. At the same time, with the aging of the population, electrical stimulation for the treatment of the disease is gradually coming into the public eye. The purpose of this systematic evaluation is to accurately evaluate the effect of electrical stimulation on improving upper limb motor function in patients with cerebral infarction. P:Cerebral infarction patients. I:Conventional rehabilitation + electrical stimulation. C:Conventional rehabilitation. O:Upper limb Fugl-Meyer assessment. A:RCT.

Condition being studied In recent years, the incidence of cerebral infarction has been increasing year by year. At the same time, with the aging of the population, electrical stimulation for the treatment of the disease is gradually coming into the public eye. The purpose of this systematic

evaluation is to accurately evaluate the effect of electrical stimulation on improving upper limb motor function in patients with cerebral infarction.

METHODS

Search strategy (("Cerebral Infarction"[Mesh]) OR (((((((((((((((((((Cerebral Infarctions[Title/Abstract]) OR (Infarctions, Cerebral[Title/Abstract])) OR (Infarction, Cerebral[Title/Abstract])) OR (Cerebral Infarct[Title/Abstract])) OR (Cerebral Infarcts[Title/Abstract])) OR (Infarct, Cerebral[Title/Abstract])) OR (Infarcts, Cerebral[Title/Abstract])) OR (Cerebral Infarction, Left Hemisphere[Title/Abstract])) OR (Left Hemisphere, Infarction, Cerebral[Title/Abstract])) OR (Infarction, Left Hemisphere, Cerebral[Title/Abstract])) OR (Left Hemisphere, Cerebral Infarction[Title/Abstract])) OR (Cerebral, Left Hemisphere, Infarction[Title/Abstract])) OR (Infarction, Cerebral, Left Hemisphere[Title/Abstract])) OR (Subcortical Infarction[Title/Abstract])) OR (Infarction, Subcortical[Title/Abstract]))

Abstract])) OR (Infarctions, Subcortical[Title/Abstract])) OR (Subcortical Infarctions[Title/Abstract])) OR (Posterior Choroidal Artery Infarction[Title/Abstract])) OR (Anterior Choroidal Artery Infarction[Title/Abstract])) OR (Cerebral Infarction, Right Hemisphere[Title/Abstract])) OR (Right Hemisphere, Cerebral Infarction[Title/Abstract])) OR (Infarction, Right Hemisphere, Cerebral[Title/Abstract])) OR (Right Hemisphere, Infarction, Cerebral[Title/Abstract])) OR (Cerebral, Right Hemisphere, Infarction[Title/Abstract])) OR (Infarction, Cerebral, Right Hemisphere[Title/Abstract])) AND (((((Stimulation, Electrical) OR (Stimulations, Electrical)) OR (Stimulation, Electric)) OR (Electric Stimulations)) OR (Stimulations, Electric))) AND (randomized controlled trial[Publication Type] OR randomized[Title/Abstract] OR placebo[Title/Abstract]).

Participant or population Cerebral infarction patients.

Intervention Conventional rehabilitation + electrical stimulation.

Comparator Conventional rehabilitation.

Study designs to be included RCT.

Eligibility criteria Inclusion criteria: 1. The type of study must be a randomized controlled trial 2. Age greater than 18 years, clinical diagnosis of cerebral infarction 3. Onset 3-14 days with limb dysfunction Exclusion criteria: 1. very small sample size 2. Other relevant treatment prior to the intervention.

Information sources We will search, with no time restrictions, the following databases for relevant English or Chinese literature: PubMed (MEDLINE), Web of Science, Embase, the Cochrane Central Register of Controlled Trials (CENTRAL), and CINAHL. The electronic database search will be supplemented by a manual search of the reference lists of included articles.

Main outcome(s) Upper limb Fugl-Meyer assessment.

Data management Endnote.

Quality assessment / Risk of bias analysis Cochrane TOOL.

Strategy of data synthesis heterogeneity exists, random effects are chosen to combine the data; no heterogeneity exists, fixed effects are chosen to combine the data.

Subgroup analysis Subgroups of patients were studied according to their age, marital status, and economic circumstances.

Sensitivity analysis If, after deleting any of them, the combined results of the rest of the literature are not significantly different from what they would have been without deletion, it means that the sensitivity analysis has been passed.

Country(ies) involved China.

Keywords cerebral infarction, Electrical stimulation.

Contributions of each author

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