

INPLASY PROTOCOL

To cite: Gong et al. Systematic review and meta-analysis of the application of low-frequency repetitive transcranial magnetic stimulation in children and adolescents with spastic hemiplegia. Inplasy protocol 202270129. doi: 10.37766/inplasy2022.7.0129

Received: 31 July 2022

Published: 31 July 2022

Corresponding author:
Gong Chao

gongchao998@163.com

Author Affiliation:
Jiamusi University.

Support: Natural Science Fund.

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

Conflicts of interest:
None declared.

Systematic review and meta-analysis of the application of low-frequency repetitive transcranial magnetic stimulation in children and adolescents with spastic hemiplegia

Gong, C¹; Guo, J²; Liu, XP³; Qin, C⁴; Lian, BB⁵; Liu, A⁶; Liu, JH⁷.

Review question / Objective: Application and treatment of low frequency repetitive transcranial magnetic stimulation in spastic hemiplegia

Eligibility criteria: The study type was randomized controlled trials (randomized controlled trials) or randomization False control experiment. (2) The subjects were clinically diagnosed spastic hemiplegia children or adolescents, regardless of race or gender, aged 0-21 years. Classification according to the ' Chinese guidelines for rehabilitation of cerebral palsy (2022) ' standard 1. (3) The observation group referred to 2022 ' Expert Consensus on Transcranial Magnetic Stimulation Therapy for Children with Cerebral Palsy ', and the treatment frequency of low-frequency rTMS was ≤ 1 Hz, and the stimulation site was healthy or bilateral . (4) **MAIN OUTCOME MEASURES :** Gross motor function measure-88 (GMFM-88) D (standing area) and E (running and jumping area) : fine motor function test The Fine Motor Function Measure (FMFM) score and the B area (upper limb joint activity) of FMFM energy region), C region (grasping energy region) and E region (operating energy region) ; assisting Hand Assessment (AHA) ; canadian Occupational Performance Measure, COPM). **1.22 Exclusion criteria (1)** To exclude repetitive articles ; (2) Excluding non-Chinese and English

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 31 July 2022 and was last updated on 31 July 2022 (registration number INPLASY202270129).

INTRODUCTION

Review question / Objective: Application and treatment of low frequency repetitive

transcranial magnetic stimulation in spastic hemiplegia.

Condition being studied: Spastic hemiplegia characterized by unilateral limb spasm and motor dysfunction.

METHODS

Participant or population: Spastic hemiplegia.

Intervention: repetitive transcranial magneticstimulation.

Comparator: low frequency repetitive transcranial magneticstimulation.

Study designs to be included: randomized controlled trial.

Eligibility criteria: The study type was randomized controlled trials (randomized controlled trials) or randomization False control experiment. (2) The subjects were clinically diagnosed spastic hemiplegia children or adolescents, regardless of race or gender, aged 0-21 years. Classification according to the ' Chinese guidelines for rehabilitation of cerebral palsy (2022) ' standard 1. (3) The observation group referred to 2022 ' Expert Consensus on Transcranial Magnetic Stimulation Therapy for Children with Cerebral Palsy ', and the treatment frequency of low-frequency rTMS was ≤ 1 Hz, and the stimulation site was healthy or bilateral . (4) **MAIN OUTCOME MEASURES :** Gross motor function measure-88 (GMFM-88) D (standing area) and E (running and jumping area) : fine motor function test The Fine Motor Function Measure (FMFM) score and the B area (upper limb joint activity) of FMFM energy region), C region (grasping energy region) and E region (operating energy region) ; assisting Hand Assessment (AHA) ; canadian Occupational Performance Measure, COPM). 1.22 Exclusion criteria (1) To exclude repetitive articles ; (2) Excluding non-Chinese and English.

Information sources: Chinese Biomedical Journal Citation Database, CNKI, wanfang database, VIP database, Cochrane Library, PEDro, PubMed, Embase Web of Science.

Main outcome(s): gross motor function classification system-88, Fine motor function classification system, Assisting Hand Assessment, Candian occupation performance measure.

Quality assessment / Risk of bias analysis: PEDro.

Strategy of data synthesis: RevMen 5.4.

Subgroup analysis: Application mode.

Sensitivity analysis: None.

Country(ies) involved: China.

Keywords: meta analysis, motor function, spasm.

Contributions of each author:

Author 1 - Gong Chao.

Author 2 - Guo Jin.

Author 3 - Liu Xiaopei.

Author 4 - Qin Cheng.

Author 5 - Lian Beibei.

Author 6 - Liu Annan.

Author 7 - Liu Jiahao.