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A systematic review and meta-analysis of the effects of Baduanjin on limb function rehabilitation in stroke patients

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202470048

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 July 2024 and was last updated on 12 July 2024.

INTRODUCTION

Review question / Objective To systematically evaluate the effectiveness of Chinese Baduanjin in the rehabilitation of motor function in stroke patients by Meta analysis statistical method.

Condition being studied Stroke and motor dysfunction.

METHODS

Participant or population The patient's age, gender and case origin were not limited. The first diagnosis was stroke and motor dysfunction. Stroke diagnosis of cerebral apoplexy by the world health organization, the definition accord with the Chinese medical association branch of neurology cardiovascular epidemiology group cerebrovascular disease diagnosis main point of the "China 2019" diagnostic criteria, and confirmed by CT or MRI brain stroke patients.

Intervention The intervention measures were Chinese Baduanjin.

Comparator Conventional rehabilitation treatment.

Study designs to be included Randomized controlled trial.

Eligibility criteria Participants The patient's age, gender and case origin were not limited. The first diagnosis was stroke and motor dysfunction. Stroke diagnosis of cerebral apoplexy by the world health organization, the definition accord with the Chinese medical association branch of neurology cardiovascular epidemiology group cerebrovascular disease diagnosis main point of the "China 2019" diagnostic criteria, and confirmed by CT or MRI brain stroke patients.Intervention Control group: conventional rehabilitation treatment; Experiment group: The intervention measures were Chinese Baduanjin or combined with other treatments. Study type Randomized controlled trial Outcome FuglMeyer Motor Scale (FMA)(Fugl-Meyer Upper Extremity, FMUE;Fugl-

Meyer Lower Extremity, FMUE) and Berg Balance Scale (BBS), the higher the score, the lower the degree of Motor dysfunction; The timed "Up & Go" test shows that the shorter the test time is, the lower the degree of motor dysfunction. Exclusion criteria Excluded literatures with no available data or incomplete data, literatures with repeated publication, literatures without full text access, literatures with unreasonable research design or poor quality, reviews and conference articles.

Information sources Electronicdatabases.

Main outcome(s) Fugl-Meyer Motor Scale (FMA) and Berg Balance Scale (BBS), the higher the score, the lower the degree of Motor dysfunction; The timed "Up & Go" test shows that the shorter the test time is, the lower the degree of motordysfunction.

Quality assessment / Risk of bias analysis In accordance with evidence-based medicine research guidelines , 2 researchers independently used the Cochrane bias risk assessment tool to assess the quality of the included studies in six aspects : including the generation of random sequence, distribution, the implementation of the hidden method, blind method, the result data integrity and selective reports the results of the study, and other sources of bias.

Strategy of data synthesis The included studies were used for data synthesis, and RevMan5.4 was used for data analysis. FMA, BBS and TUGT were all measurement data. In this meta-analysis, point estimates and 95%CI were given for each effect size, and mean difference (MD) was used as the effect index. When heterogeneity (I2 50%), the random-effect model was used for data analysis. P is used to evaluate whether the results have statistical significance. When P0.05, were considered not statistically significant. In addition, if there is significant heterogeneity, subgroup analysis or sensitivity analysis will be used to deal with it, and descriptive analysis will be used for studies that cannot carry out data synthesis.

Subgroup analysis MD was taken as the effect indicator, and used random effect model for analysis 1.Fugl-Meyer Upper Extremity and Fugl-Meyer Lower Extremity;2.BBS; 3.TUGT.

Sensitivity analysis After subgroup analysis, when there is still significant heterogeneity between studies, sensitivity analysis is required, that is, Meta-analysis of the remaining studies and whether the results change, so as to assess whether the Meta-analysis results are stable and reliable.

Country(ies) involved China.

Keywords Baduanjin; stroke.

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