INPLASY PROTOCOL

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The effect of Mind-body exercise on the pain grade, function and quality of life of patients with cervical spondylopathy: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Liao, X[1]; Chen, H[2]; Ge, B[3].

Review question / Objective: The aim of this study uses meta-analysis methods to explore the effects and safety of Mind-body exercise in improving the pain level, function, and quality of life of patients with cervical pain.

Condition being studied: Cervical pain is a sign of local discomfort or pain in the cervical spine. The pain can have many causes, such as acute injury, chronic strain, and degenerative disc pathological changes. In real life, patients with cervical pain caused by acute injury are rare. Patients with cervical pain are mainly chronic strain and cervical spondylopathy. Studies have shown that the blood supply gradually decreases with age, the intervertebral discs cannot get enough blood supply and nutrients, and the cervical spine undergoes degenerative changes, resulting in middle-aged and elderly patients with cervical spine pain several times the number of young people. However, as the pace of society accelerates, people such as students and office workers spend significantly more time using laptops and mobile phones than other people, which has led to the increasing number of young patients with cervical pain in recent years.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 December 2020 and was last updated on 16 December 2020 (registration number INPLASY2020120088).

INTRODUCTION

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causes, such as acute injury, chronic strain, and degenerative disc pathological changes. In real life, patients with cervical pain caused by acute injury are rare. Patients with cervical pain are mainly chronic strain and cervical spondylopathy. Studies have shown that the blood supply gradually decreases with age, the intervertebral discs cannot get enough blood supply and nutrients, and the cervical spine undergoes degenerative changes, resulting in middle-aged and elderly patients with cervical spine pain several times the number of young people. However, as the pace of society accelerates, people such as students and office workers spend significantly more time using laptops and mobile phones than other people, which has led to the increasing number of young patients with cervical pain in recent years.

METHODS

Search strategy: In this study, two research databases were used for searching: CNKI and WOS(web of science); the end date of the consistency search for this study was April 15, 2020, and the references of the included literature were searched manually. This study uses two sets of keywords, namely: (1) Mind-body exercise, TaiChi, Taijiquan, Baduanjin, Qigong, Wuqinxi, Yijinjing; (2) Cervical spondylosis, Neck pain, Cervical pain.

Participant or population: Adults who meet the following pain diagnostic criteria are "Practical Orthopedics" (4th Edition) or "Expert Consensus on the Classification, Diagnosis and Non-surgical Treatment of Cervical Spondylosis" or "Guidelines for the Diagnosis, Treatment and Rehabilitation of Cervical Spondylosis (2010)" or hospital admission or self-care Comment on neck pain or "The Third National Cervical Spondylopathy Special Standards" or "Clinical Diagnosis and Treatment Guidelines-Orthopedics Faculty" or "The Second National Cervical Spondylopathy Special Symposium Standards (1992)" or VAS score (percentile system)> 20.

Intervention: Mind-body exercise or Mind-body exercise plus other aids was the main intervention.

Comparator: No intervention or No intervention plus other aids was the main Comparator.

Study designs to be included: Randomized controlled trials (RCTs) will be included.

Eligibility criteria: (1) Documents that were repeatedly published at conferences and abstracts and were of low academic level; (2) The experimental data could not extract uncalculated documents; (3) The study population had a history of headache or neck trauma; (4) The study population was at baseline Have been treated before the measure.

Information sources: In this study, two research databases were used for searching: CNKI and WOS(web of science).

Main outcome(s): VAS(Visual Analogue Scale);NDI(Neck Disability Index);SF-36(The MOS item short from health survey).

Data management: After retrieving the relevant documents from the database, two researchers (LXH, GBH) screened the titles and abstracts of all the documents, with the purpose of excluding documents irrelevant to the study. According to the inclusion and exclusion criteria of this study, the remaining documents are evaluated to determine the documents that meet the research criteria. In addition, the researchers also evaluate the manually screened documents and include the documents that meet the research criteria. The evaluation is independent. When there are differences in the inclusion and exclusion of the literature, the third researcher (CH) will re-evaluate the literature, and the results will be discussed with the two researchers (LXH, GBH) and finally reached a consensus.

Quality assessment / Risk of bias analysis: In order to independently evaluate the methodology of the included studies, the PEDro scale was used, which has a

maximum score of 9 points. One paper scored 8 points, 11 papers scored 7 points, and 8 papers scored 6 points.

Strategy of data synthesis: Stata 14.0 software was used to perform heterogeneity test, sensitivity test, and publication bias test on all the outcome indicators included in the literature, and draw forest diagrams and funnel diagrams. The literature outcome indicators included in this article are continuous variables, and the test units of each indicator are the same, and WMD is selected for analysis; meanwhile, the effect size is selected for statistical analysis and 95% confidence interval is calculated. Use P value and I² to test for heterogeneity. If P>0.10, there is no heterogeneity between the studies. If P<0.10, there is heterogeneity between the studies. Subgroup analysis is used to determine the outcome.

Subgroup analysis: VAS (Visual Analogue Scale) is mainly used to evaluate the visual pain level of patients with cervical spondylosis. In order to explore the possible causes of heterogeneity, subgroup analysis was adopted according to the different types of the tested patient population, which were divided into NTCS(Neck Type Cervical Spondylosis), CSR(Cervical Spondylotic Radiculopathy), Cervical spondylotic radiculopathy and physiological curvature.

Sensibility analysis: VAS (Visual Analogue Scale) is mainly used to evaluate the visual pain level of patients with cervical spondylosis, NDI(Neck Disability Index)is mainly used to evaluate the function of the cervical spine, BP (Bodily Pain) is mainly used to evaluate the degree of pain. These three indicators will be subjected to sensitivity analysis.

Language: No restriction.

Country(ies) involved: China.

Keywords: Mind-body exercise; Cervical pain; VAS; NDI; SF-36.

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