INPLASY PROTOCOL

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Support: None.

Review Stage at time of this submission: The review has not yet started.

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The effectiveness of different acupuncture therapies for neck pain: A protocol for systematic review and/or network meta-analysis

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Review question / Objective: The object of this study was to conduct a systematic review and network meta-analysis to evaluate and compare the effectiveness of various types of acupuncture for neck pain.

Condition being studied: A large number of randomized trials on the use of acupuncture to treat musculoskeletal pain have been conducted. In the recent years, various acupuncture methods have been widely used in treating chronic neck pain and suggested to be effective option in the neck pain for adults.

Information sources: A search will be conducted from inception to July 2021 in the following databases: ovid-MEDLINE, EMBASE, Cochrane Library, China National Knowledge Infrastructure (CNKI), KoreaMed, Korean medical database, Korean Studies Information Service System (KISS), ScienceON, and Oriental Medicine Advanced Searching Integrated System (OASIS).

INTRODUCTION

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METHODS

Participant or population: Adults patients (>18 years old) with cervical pain and cervical intervertebral disc herniation accompanied by radicular symptoms, excluding whiplash injuries, athletic injuries.

Intervention: Various types of acupuncture including manual acupuncture, electroacupuncture, warm acupuncture, fire acupuncture, and acupoint catgut embedding.

Comparator: Sham acupuncture, usual care, western medication, no treatment (wait) or one of the above-mentioned acupuncture treatments. The usage of combination therapy with acupuncture in the experimental group will be excluded.

Study designs to be included: This research will include all relevant randomized controlled trials using acupuncture therapies for neck pain, and the first period in randomized cross-over trials.

Eligibility criteria: We will only include randomized controlled trials about single use of acupuncture treatment for neck pain. Non-RCT studies including case studies, quasi-RCT, experimental studies, cohort studies and RCTs published in the form of letters-to-the-editor, and conference abstracts will be excluded.

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Main outcome(s): Pain index (such as visual analogue scale, neck pain questionnaire).

Additional outcome(s): Functional status (such as effective rate), and adverse events.

Quality assessment / Risk of bias analysis: Three reviewers will independently assess the risk of bias using "Risk of Bias (RoB) Tool" of Cochrane Collaborations. The tool is composed of six domains: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting, and other bias. In each category, the risk of bias will be rated as 'low risk', 'high risk' and 'unclear'. If the opinions of the three researchers do not agree, the final evaluation will be conducted through mutual discussion.

Strategy of data synthesis: We will use the Review Manager (RevMan) software for Windows to perform a pairwise meta-analysis and to calculate the OR or SMD (version 5.4, the Nordic Cochrane Center, the Cochrane Collaboration, 2020). A random-effects model or a fixed-effect model with a 95% CI will be used to calculate the pooled estimates of the effect size. In addition, we perform network meta-analysis with the frequentist method for indirectly comparing efficacy and ranking of different acupuncture treatments, using R software (http://www.r-project.org/, version 4.0.3). Consistency between direct and indirect evidence was estimated by z-test, and p > 0.05 indicated inconsistency.

Subgroup analysis: Potentially if data suitable.

Sensitivity analysis: Before selecting model, sensitivity analysis will be performed if sufficient studies are available.

Country(ies) involved: Republic of Korea.

Keywords: Cervical pain, acupuncture, systematic review, network meta-analysis.

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