INPLASY PROTOCOL

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Support: **None.**

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

Conflicts of interest: **None.**

The effectiveness and safety of electroacupuncture for non-specific chronic low back pain: A protocol for systematic review and/or meta-analysis

Sung, WS[1]; Hong, Y[2]; Kim, EJ[3].

Review question / Objective: **The aim of this systematic review and meta-analysis is to investigate the clinical effectiveness and safety of electroacupuncture as a treatment for non-specific chronic low back pain.**
Condition being studied: **Studies on the analgesic mechanism of electroacupuncture have reported the relationship with the endogenous opioid peptides. Regarding chronic pain, electroacupuncture was suggested to be able to reduce opioid medication use safely and to be effective option in the chronic low back pain with the exercise combination.**
Information sources: **A search will be conducted from inception to March 2021 in the following databases: MEDLINE, EMBASE, Cochrane Library, China National Knowledge Infrastructure (CNKI), CiNii, J-STAGE, KoreaMed, Korean Medical Database, Korean Studies Information Service System (KISS), National Digital Science Library (NDSL), Korea Institute of Science and Technology Information (KISTI), and Oriental Medicine Advanced Searching Integrated System (OASIS).**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 December 2020 and was last updated on 07 December 2020 (registration number INPLASY2020120039).

INTRODUCTION

Review question / Objective: **The aim of this systematic review and meta-analysis is to investigate the clinical effectiveness and safety of electroacupuncture as a treatment for non-specific chronic low back pain.**

Rationale: **Electroacupuncture has been known to be useful to chronic low back**

pain as acupuncture with its own analgesic mechanism, however there has been no systematic review (SR) about it.

Condition being studied: Studies on the analgesic mechanism of electroacupuncture have reported the relationship with the endogenous opioid peptides. Regarding chronic pain, electroacupuncture was suggested to be able to reduce opioid medication use safely and to be effective option in the chronic low back pain with the exercise combination.

METHODS

Search strategy: We will search randomized controlled trials about the electroacupuncture for non-specific chronic low back pain through multiple electronic databases, manual search, and contact to author.

Participant or population: Patients diagnosed as non-specific low back pain.

Intervention: Electroacupuncture.

Comparator: Placebo, other conventional treatments for non-specific low back pain including medication, physical therapy, usual care. The usage of combination therapy with electroacupuncture in the experimental group should be consistent with control group.

Study designs to be included: Randomized controlled trials that investigated the effects of electroacupuncture on non-specific low back pain with control group containing other conventional treatments.

Eligibility criteria: We will only include randominzed controlled trials (RCTs) about the electroacupuncture for non-specific chronic low back pain. Non-RCTs and uncontrolled clinical trials (eg, case studies) will be excluded. There will be no limitation according to language or publication.

Information sources: A search will be conducted from inception to March 2021 in the following databases: MEDLINE, EMBASE, Cochrane Library, China National Knowledge Infrastructure (CNKI), CiNii, J-STAGE, KoreaMed, Korean Medical Database, Korean Studies Information Service System (KISS), National Digital Science Library (NDSL), Korea Institute of Science and Technology Information (KISTI), and Oriental Medicine Advanced Searching Integrated System (OASIS).

Main outcome(s): Pain index (visual analogue scale, numerical rating scale).

Additional outcome(s): Functional status (eg, Roland morris disability questionnaire) and adverse events.

Quality assessment / Risk of bias analysis: Two reviewers will assess the risk of bias independently by using risk of bias (ROB) tool from the Cochrane Collaboration. Composed of six domains (sequence generation, allocation concealment, blinding of participants, blinding of outcome assessors, incomplete outcome data, and selective outcome reporting), ROB tool will be rated as “low risk,” “high risk,” or “unclear risk".

Strategy of data synthesis: We will perform a meta-analysis and calculate the RR or SMD by using the Review Manager (REVMAN) software for Windows (Version 5.3; Copenhagen; The Nordic Cochrane Center, The Cochrane Collaboration, 2014). 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.

Subgroup analysis: Potentially if data suitable.

Sensibility analysis: We will perform a sensitivity analysis to test the robustness of study finding.

Country(ies) involved: Republic of Korea.

Keywords: non-specific chronic low back pain, electroacupuncture, systematic review, meta-analysis.

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