Systematic review and meta-analysis of thunder fire moxibustion as adjuvant therapy for lumbar disc herniation

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Review question / Objective: To systematically evaluate the effectiveness and safety of thunder fire moxibustion as adjuvant therapy for lumbar disc herniation (LDH), and to provide evidence for clinical practice.

Condition being studied: Lumbar disc herniation is a syndrome caused by irritation and/or compression of nerve roots and cauda equina nerves by the protruding disc tissue on the pathological basis of lumbar disc herniation. Thunder fire moxibustion is one of the moxibustion therapy based on the theory of Chinese medicine. This study evaluates the effectiveness and safety of thunder fire moxibustion as an adjuvant therapy for lumbar disc herniation.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 21 October 2022 and was last updated on 21 October 2022 (registration number INPLASY2022100086).

INTRODUCTION

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effectiveness and safety of thunder fire moxibustion as an adjuvant therapy for lumbar disc herniation.

METHODS

Participant or population: Patients diagnosed with lumbar disc herniation regardless of age or gender.

Intervention: The experimental group involved thunder fire moxibustion treatment.

Comparator: The control group intervention could be Chinese medical treatment, Western medical treatment or placebo, etc.

Study designs to be included: RCT.

Eligibility criteria: Exclusion of duplicate literature, trial preliminaries, and literature for which full text was not available. Exclude trials where the control and trial groups included both thunder fire moxibustion. Exclude trials in which the control and trial groups were comparisons of complex interventions with multiple different treatments. Exclude experiments in which the experimental group added multiple interventions to the control group. Exclude studies that focus on nursing and improving postoperative symptoms. Excludes studies with significant data deficiencies or data errors.

Information sources: CNKI, Wanfang, VIP, Sinomed, Pubmed, Embase and Cochrane Library.

Main outcome(s): The outcomes were assessed based on the JOA (Japanese Orthopaedic Association) score, VAS (Visual analogue scale) pain score, the ODI (Oswestry disability index), SF-36 (The Short Form 36 Health Survey), etc. To evaluate the therapeutic effect of TCM to use an effective rate with reference to the Diagnostic and Efficacy Criteria for TCM Diseases.

Quality assessment / Risk of bias analysis: The two investigators assessed bias risk using the bias Cochrane risk assessment tool ROB1.0, cross-checked the results and resolve any inconsistencies through discussion. Final results were entered into revman 5.4 for analysis and display.

Strategy of data synthesis: Statistical analysis was performed using RevMan 5.4 software. The mean difference (MD) was used as the effect analysis statistic for measures, and the relative risk (RR) was used as the effect analysis statistic for dichotomous variables, with 95% CIs provided for each effect. If there was statistical heterogeneity between studies, the source of heterogeneity was further analyzed, and after excluding the effect of significant clinical heterogeneity, a random-effects model was used for Meta-analysis.

Subgroup analysis: Studies with different interventions were analyzed in subgroups according to the interventions.

Sensitivity analysis: None reported.

Country(ies) involved: China.

Keywords: Thunder fire moxibustion, lumbar disc herniation, systematic review, meta-analysis, randomized clinical trials.

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