

INPLASY PROTOCOL

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None declared.

Efficacy and Safety of Daoyin and Massage for Lumbar Disc Herniation: An Overview of Systematic Reviews Protocol

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Review question / Objective: The objectives of this overview are to appraise and synthesize systematic reviews and meta-analyses relating to Daoyin and massage for lumbar disc herniation (LDH). The effect of Daoyin and massage in LDH will be evaluated critically.

Condition being studied: Lumbar disc herniation (LDH) has a wide range of diseases, leading to sciatic nerve pain and even motor dysfunction. Daoyin is the general term of self exercise in traditional Chinese medicine, including Taijiquan, Baduanjin, Wuginx, etc. It can effectively prevent and treat many diseases. Massage and Daoyin have been widely used in the conservative treatment of LDH, and a large number of systematic reviews and meta-analyses are emerging. Inevitably, the methodological quality of the existing systematic reviews of massage and Daoyin in LDH is varied. The varied and highly heterogeneous results that may mislead clinicians are produced, so it is difficult to provide clear guidance and suggestions for health decision-makers and clinicians. This study summarizes the existing systematic reviews and meta-analyses to provide the best reference evidence for clinicians.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 05 January 2022 and was last updated on 05 January 2022 (registration number INPLASY202210019).

INTRODUCTION

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METHODS

Search strategy: To ensure the comprehensiveness of the literature retrieval, we will search 8 electronic databases, including China National Knowledge Infrastructure (CNKI), Wangfang (WF), Chongqing VIP (VIP), Chinese Biomedical Literature Database (CBM), Cochrane Library, PubMed, Web of Science (WOS), and EMBASE. The retrieval time is from the establishment of the database to March 1, 2022. The search terms include "LDH", "lumbar disc herniation", "Taiji", "Tai Chi", "Massage", etc. Subject words and free words will be used for searching in different databases. The references list of included reviews will be used as a supplementary search to improve the comprehensiveness of the retrieved literature. Literature search will be conducted by 2 reviewers (MS and XZ).

Participant or population: Patients who are diagnosed with lumbar disc herniation according to standard diagnostic criteria. Meanwhile, the reference content of the diagnostic criteria is not restricted.

Intervention: 1) Massage with or without other therapies. 2) Daoyin with or without other therapies.

Comparator: Acupuncture, traction, physiotherapy, oral drugs, or other therapies will be included. Placebo or no treatment will also be considered.

Study designs to be included: Systematic reviews/meta-analyses of randomized controlled trials (RCTs). No language restrictions.

Eligibility criteria: 1) Quantitative analysis was carried out; 2) Participants were diagnosed with LDH; 3) Intervention groups include massage or Daoyin; 4) Comparator groups include drugs, physiotherapy, surgery, no treatment, and so on.

Information sources: Eight databases are the main sources of information. In addition, the list of references included studies will be searched as a supplementary search method.

Main outcome(s): The primary outcomes: 1) Total effective rate; 2) The Oswestry Disability Index (ODI) scores; 3) Visual analogue scale (VAS) scores.

Additional outcome(s): The secondary outcomes: 1) Cure rate; 2) Recurrence rate; 3) Japanese Orthopaedic Association Scores (JOA scores); 4) SF-36 scale; 5) adverse events.

Data management: All search results will be imported into Noteexpress 3.4 to eliminate duplicate documents. Two researchers (MS and XZ) screened the literature by reading the title, abstract and full text. When there is an objection to the inclusion of a document, the third researcher (SL) will decide whether to retain the document. The flow chart of literature screening will be presented. If available, the excluded documents after reading the full text will be presented in the form of attachments. Two reviewers (MS and XZ) will independently extract data using Excel 2019. In case of disagreement, the third reviewer (SL) will make the final decision.

Quality assessment / Risk of bias analysis: The PRISMA 2020 will be adopted to

assess the reporting quality of included system reviews, and the AMSTAR-2 will be used to assess the methodological quality. Risk Of Bias In Systematic reviews (ROBIS) will be used to assess the risk of bias in making systematic reviews. We will evaluate the quality of evidence using the GRADE. The results of all assessments will be presented in tabular form. The AMSTAR-2, PRISMA 2020, and GRADE evaluation process will be conducted independently by two researchers (JL and CZ), and the controversial issues were decided by the arbitrator (ZL).

Strategy of data synthesis: We will use the corrected covered area (CCA) methods to assess the degree of overlapping areas. In addition, an overlapping matrix will be listed as an attachment. RevMan 5.3 software will be used for data integration and re-analysis. The odds ratio (OR) and mean difference (MD) with 95% confidence intervals will be calculated to represent the results of the meta-analysis. The I² and P-value of the chi-square test will be determined whether there is statistical heterogeneity. The P>0.1 and I²≤50% will be considered as acceptable statistical heterogeneity and the fixed effect model will be conducted, and vice versa.

Subgroup analysis: If possible, subgroup analyses for each outcome will be performed according to the frequency or type of Daoyin.

Sensitivity analysis: If possible, we will conduct sensitivity analysis by removing one study at a time to verify the stability of these results.

Language: There are no language limits on the search.

Country(ies) involved: China.

Keywords: Lumbar disc herniation; Overview; Meta-analysis; Systematic review; Massage; Daoyin; Traditional Chinese medicine.

Contributions of each author:

Author 1 - Mingpeng Shi.

Author 2 - Xianshuai Zhang - Xianshuai Zhang manages data and writes the manuscript.

Author 3 - Siyi Wang.

Author 4 - Shaojun Li.

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