INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Quality of Evidence Supporting the Role of Curcuma Longa Extract/Curcumin for the Treatment of Osteoarthritis: An Protocol for Overview of Systematic Reviews and Meta-analyses

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Review question / Objective: **The purpose of our research is to use a systematic overview to critically evaluate the scientific quality of related SRs/MAs in CLE/C treatment of OA.**
Eligibility criteria: **(a)Study Design: This overview only includes SRs/MAs from randomized controlled trials (RCTs) of CLE/C in the treatment of OA.(b)Study Participants: Subjects who have been clinically or radiologically diagnosed with OA according to national or international standards, regardless of gender, race or age.(c)Study Intervention: The intervention method was CLE/C; the control group was treated with conventional treatment (CT) or placebo.(d)Study Outcome Measures: Western Ontario and McMaster University Arthritis Index Score (WOMAC), Visual Analog Scale (VAS), adverse reactions, and other outcome measures, including the use of rescue drugs, incidence of withdrawal from treatment due to adverse events, the use of rescue drugs, walking distance, and analgesic discontinuation rate.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 February 2022 and was last updated on 16 February 2022 (registration number INPLASY202220063).

INTRODUCTION

Review question / Objective: **The purpose of our research is to use a systematic overview to critically evaluate the scientific quality of related SRs/MAs in CLE/C treatment of OA.**

Condition being studied: **Many systematic reviews/meta analyses (SRs/MAs) have been conducted to evaluate the potential**

therapeutic benefits of CLE/C for patients with OA. However, the conclusions are inconsistent due to the defects of the quality and methods of the preliminary researches.

METHODS

Participant or population: Subjects who have been clinically or radiologically diagnosed with OA

Intervention: The intervention method was CLE/C; the control group was treated with conventional treatment (CT) or placebo.

Comparator: The intervention method was CLE/C; the control group was treated with conventional treatment (CT) or placebo.

Study designs to be included: Study Design: This overview only includes SRs/MAs from randomized controlled trials (RCTs) of CLE/C in the treatment of OA.

Eligibility criteria: (a)Study Design: This overview only includes SRs/MAs from randomized controlled trials (RCTs) of CLE/C in the treatment of OA.(b)Study Participants: Subjects who have been clinically or radiologically diagnosed with OA according to national or international standards, regardless of gender, race or age.(c)Study Intervention: The intervention method was CLE/C; the control group was treated with conventional treatment (CT) or placebo.(d)Study Outcome Measures: Western Ontario and McMaster University Arthritis Index Score (WOMAC), Visual Analog Scale (VAS), adverse reactions, and other outcome measures, including the use of rescue drugs, incidence of withdrawal from treatment due to adverse events, the use of rescue drugs, walking distance, and analgesic discontinuation rate.

Information sources: The search was carried out with 7 databases including PubMed, Embase, Cochrane Library, CNKI, Wanfang Database, Chongqing VIP, and Chinese Biological Medicine (CBM) Database from its establishment until December 1, 2021.

Main outcome(s): Western Ontario and McMaster University Arthritis Index Score (WOMAC), Visual Analog Scale (VAS).

Quality assessment / Risk of bias analysis: Two independent researchers evaluated the methodological quality, report quality, risk of bias, and evidence quality of each SRs/MAs respectively. The tools used are as follows: Methodological Quality of Systematic Reviews 2 (AMSTAR-2)(15), risk of deviation in systematic reviews (ROBIS) (16), preferred reporting project for systematic reviews and meta-analysis (PRISMA), and the classification, evaluation, development, and evaluation of recommendations (GRADE). If there is a disagreement in the process, it will be resolved through discussion or consensus with the third-party reviewer. AMSTAR2 is an SRs/MAs evaluation tool that contains 16 items to evaluate the methodological quality of each included SRs/MAs. To assess the effectiveness of SRs/MAs will be directly affected by seven key items (2, 4, 7, 9, 11, 13, and 15). According to the completion of each item, it can be divided into "No", "Partial Yes" or "Yes". At the same time, the overall confidence of SRs/MAs results can be divided into four levels: "high", "moderate", "low", and "very low". The ROBIS tool is used to assess the risk of bias of each SRs/MAs. The tool is completed in 3 stages: 1) relevance assessment; 2) assessing some of the issues that may be involved in SRs; 3) Evaluating the overall risk of deviation in domain 2 of the interpretation stage. The result was judged as "low", "unclear" or "high". Use the PRISMA checklist to assess the quality of each SRs/MAs report. It has the following areas: (a) title, (b) summary, (c) introduction, (d) method, (e) result, (f) discussion, (g) funding. And it consists of 27 projects. According to the completeness of the project information report, each project is considered "yes" (full report), "partial yes" (partial report), or "no" (no report). The GRADE system classifies the quality of evidence into four levels: "high", "moderate", "low", or "very low", and is used to assess the quality of evidence for each outcome measure registered in these SRs/MAs. If there are research limitations,

inconsistencies, inaccuracy, indirectness, or publication bias, the initial score will be reduced.

Strategy of data synthesis: NA.

Subgroup analysis: NA.

Sensitivity analysis: NA.

Country(ies) involved: China.

Keywords: Curcuma longa extract; Curcumin; osteoarthritis; Systematic reviews; Meta-analyses; Overview.

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