INPLASY PROTOCOL

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None declared.

Effects of natural products in Patients with Non-alcoholic Fatty Liver Disease—A Network Meta-Analysis of Randomized Controlled Trials

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Review question / Objective: **The purpose of this study is to investigate the difference between the efficacy of natural products in the treatment of people with Non-alcoholic Fatty Liver disease and the efficacy of ordinary care and placebo . The study type selected is RCTs test. The result of selection is the hereditary biological indicators, lipid metadata indicators and body mass index for people with Non alcoholic Fatty Liver Disease.**
Eligibility criteria: **1. No drinking history or alcohol consumption is less than 140g per week (women<70g).2. The specific diseases that may lead to fatty liver, such as viral hepatitis, drug-induced liver disease, total parenteral nutrition, hepatolenticular degeneration, are excluded.3. The histological changes of liver biopsy meet the pathological diagnostic criteria of fatty liver disease.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 31 October 2022 and was last updated on 31 October 2022 (registration number INPLASY2022100123).

INTRODUCTION

Review question / Objective: **The purpose of this study is to investigate the difference between the efficacy of natural products in the treatment of people with Non-alcoholic Fatty Liver disease and the efficacy of ordinary care and placebo . The study type selected is RCTs test. The result of selection is the hereditary biological indicators, lipid metadata indicators and**

body mass index for people with Non alcoholic Fatty Liver Disease.

Condition being studied: People with Non-alcoholic Fatty Liver disease.

METHODS

Participant or population: People with Non-alcoholic Fatty Liver disease.

Intervention: Seven natural products (curcumin, silymarin, resveratrol, artichoke leaf extract, berberine, catechins, and naringenin).

Comparator: Only usual care and placebo prepared in identical syringes to the study drug.

Study designs to be included: RCTs.

Eligibility criteria: 1. No drinking history or alcohol consumption is less than 140g per week (women<70g).2. The specific diseases that may lead to fatty liver, such as viral hepatitis, drug-induced liver disease, total parenteral nutrition, hepatolenticular degeneration, are excluded. 3. The histological changes of liver biopsy meet the pathological diagnostic criteria of fatty liver disease.

Information sources: Pubmed, EMBASE, Cochrane Central Register of Controlled Trials and Web of Science.

Main outcome(s): AST, ALT, TG, TC, HDL, LDL, BMI.

Quality assessment / Risk of bias analysis: Two researchers independently assessed the risk of bias (ROB), by the Cochrane Handbook version 5.1.0 tool for assessing ROB in RCTs. There were seven domains considered: (1) randomized sequence generation, (2) treatment allocation concealment, blinding of (3) participants and (4) personnel, (5) incomplete outcome data, (6) selective reporting, and (7) other sources of bias. Trials were categorized into three levels of ROB by the number of components for which high ROB potentially existed: high risk (five or more), moderate risk (three or four), and low risk (two or fewer) Cochrane.

Strategy of data synthesis: We used Stata software (version 15.1) and performed NMA aggregation and analysis using Markov chain Monte Carlo simulation chains in a Bayesian-based framework according to the PRISMA NMA instruction manual. We will use the nodal method to quantify and demonstrate the agreement between indirect and direct comparisons, calculated through the instructions in the Stata software, and if the P-value > 0.05. the consistency test passes.

Subgroup analysis: Not used.

Sensitivity analysis: Not used.

Country(ies) involved: China.

Keywords: natural products ; Non-alcoholic Fatty Liver Disease; network meta-analysis.

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