

INPLASY PROTOCOL

To cite: Ni et al. Efficacy and safety of Acupuncture for carotid atherosclerosis: A protocol for systematic review and network meta-analysis. Inplasy protocol 202320005. doi: 10.37766/inplasy2023.2.0005

Received: 01 February 2023

Published: 01 February 2023

Corresponding author:
Zhichao Ni

313474951@qq.com

Author Affiliation:
Chengdu University of TCM

Support: Sichuan Cadre Health Care Project (No. ZH2020-1901).

Review Stage at time of this submission: Formal screening of search results against eligibility criteria.

Conflicts of interest:
None declared.

Efficacy and safety of Acupuncture for carotid atherosclerosis: A protocol for systematic review and network meta-analysis

Ni, ZC¹; Xiao, QW²; Huang, ZY³; Xia, ZH⁴; Peng, DZ⁵.

Review question / Objective: Efficacy and safety of Acupuncture for carotid atherosclerosis: A protocol for systematic review and network meta-analysis

Eligibility criteria: Patients should be diagnosed as CAS by guidelines or expert consensus with clear diagnostic criteria. The patient's age should be greater than 18 years old, and there will be no restrictions on the patient's gender, race, course of disease and severity. (1) history of major surgery and severe trauma; (2) combination of atrial fibrillation and arrhythmias; (3) history of drug and alcohol abuse; (4) combination of Parkinson's disease and schizophrenia; (5) combination of cerebrovascular accident and myocardial infarction; (6) combination of symptomatic treatment before the study; (7) combination of obesity and diabetes mellitus; (8) allergy to drugs involved in this study (9) Combination of thyroid abnormalities and immune system diseases.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 February 2023 and was last updated on 01 February 2023 (registration number INPLASY202320005).

INTRODUCTION

Review question / Objective: Efficacy and safety of Acupuncture for carotid atherosclerosis: A protocol for systematic review and network meta-analysis

Condition being studied: Carotid atherosclerosis (CAS) is the common cardiovascular disease in clinic. Acupuncture, as an important part of traditional Chinese medicine treatment, has gradually been valued in the field of prevention and treatment of the

progression of carotid atherosclerosis, but lack of high-quality evidence proof. Therefore, this protocol is carried out to comprehensively evaluate the reliability of CAS patients treated by acupuncture.

METHODS

Participant or population: Patients be diagnosed as CAS.

Intervention: Acupuncture.

Comparator: Sham acupuncture, routine treatment of western medicine, Chinese herbal medicine, acupoint application, moxibustion and so onother interventions.

Study designs to be included: Assessment of multiple systematic reviews-2;grading of recommendations assessment.

Eligibility criteria: Patients should be diagnosed as CAS by guidelines or expert consensus with clear diagnostic criteria.The patient's age should be greater than 18 years old, and there will be no restrictions on the patient's gender, race, course of disease and severity. (1) history of major surgery and severe trauma; (2) combination of atrial fibrillation and arrhythmias; (3) history of drug and alcohol abuse; (4) combination of Parkinson's disease and schizophrenia; (5) combination of cerebrovascular accident and myocardial infarction; (6) combination of symptomatic treatment before the study; (7) combination of obesity and diabetes mellitus; (8) allergy to drugs involved in this study (9) Combination of thyroid abnormalities and immune system diseases.

Information sources: PubMed, Cochrane Central Register of Controlled Trials, EMBASE, Web of Science, China National Knowledge Infrastructure, Wan-Fang Database, Chinese Science and Technology Periodical Database, SinoMed.Eight databases will be systematically retrieved from their inceptions to January 2023. This study will include randomized controlled trials of acupuncture in the treatment of CAS. The

main outcome will include clinical effective rate, TCM symptom score, Literature screening, quality evaluation and information extraction will be completed by two independent researchers. Revman 5.3 software will be used to perform meta-analysis. Assessment of multiple systematic reviews-2 tool will be used for evaluating the methodological quality of systematic review (SR), grading of recommendations assessment will for rating the quality of evidence, and consolidated standards of reporting trials and Standards for Reporting Interventions in Clinical Trials of Acupuncture tool will for assessing the reporting quality of randomized controlled trials.

Main outcome(s): The findings of this SR will provide up-to-date summary proof for evaluating the effectiveness and safety of acupuncture for CAS.

Quality assessment / Risk of bias analysis: Cochrane risk of bias assessment toolwill be used to assess the risk of bias in the included RCTs. Based on the risk of bias assessment items, two researchers will evaluate from six aspects, namely "random sequence generation" "allocation concmethods" "incomplete outcome data" "selective outcome reporting" "other bias".ealment" "blinding.

Strategy of data synthesis: In this SR, Revman 5.3 software will be used to perform meta analysis. The Q-test and I 2 values will be applied to measure the inter-study heterogeneity. When the P value of Q test $>.1$ and I 250%, we will try to explore the causes of heterogeneity. If the heterogeneity is still significant, random effect model will be used for analysis. Binary variables were expressed using the odds ratio with 95% confidence interval (CI) and continuous variables by the standardized mean difference with 95%CI.

Subgroup analysis: The clinical heterogeneity and / or methodological heterogeneity of the included RCTs are the main reasons for the statistically significant heterogeneity. Subgroup analysis will be used to explore potential factors causing

significant heterogeneity, such as intervention measures, control measures, study quality, sample size, course of treatment, risk of bias, etc

Sensitivity analysis: The combination of different levels of risk of bias and quality of studies may affect the overall effect. We will try to eliminate the low-quality RCT according to the assessments results of risk of bias and methodological quality to confirm the stability of conclusion. If the overall quality of RCTs contained under the outcome are similar, the method of excluding RCT one by one will be used for sensitivity analysis.

Language restriction: Only Chinese AND English.

Country(ies) involved: China.

Keywords: acupuncture; carotid atherosclerosis; plaque; meta-analysis; systematic review.

Contributions of each author:

Author 1 - Zhichao Ni - Author 1 drafted the manuscript.

Email: 313474951@qq.com

Author 2 - Qinwen Xiao - The author provided statistical expertise.

Email: emilyshawn@163.com

Author 3 - Zhongyuan Huang.

Email: 2811806212@qq.com

Author 4 - Zihao Xia.

Email: 792187964@qq.com

Author 5 - Dezhong Peng.

Email: 15828055698@163.com