

INPLASY PROTOCOL

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Corresponding author:
Xue-Song WANG

875107987@qq.com

Author Affiliation:
Hubei University of Chinese
Medicine

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All authors declare that they
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INTRODUCTION

Review question / Objective: To compare and rank the clinical effects of different acupuncture and acupuncture-related therapies on patients with hyperlipidemia.

Condition being studied: With the improvement of people's living standard

Acupuncture and Related Therapies for Hyperlipidemia: A Network Meta- Analysis

Wang, X¹; Li, J²; Wang, Y³; Yu, C⁴; He, C⁵; Huang, Z⁶; Wu, M⁷,
Kong, L⁸.

Review question / Objective: To compare and rank the clinical effects of different acupuncture and acupuncture-related therapies on patients with hyperlipidemia.

Condition being studied: With the improvement of people's living standard and the change of lifestyle, the incidence of hyperlipidemia is increasing year by year. There is increasing evidence showing that acupuncture and related therapies are effective for hyperlipidemia. We used Network Meta-Analysis (NMA) to evaluate the direct and indirect evidence from relevant studies. Three English and four Chinese databases were searched to collect randomized controlled trials (RCT) of acupuncture-related therapies in the treatment of hyperlipidemia from the establishment of the databases to March 2020. The data were analyzed using Stata15.0 and WinBUGS1.4.3 software. Our aim is to compare and rank the clinical efficacy of different acupuncture and related therapies in patients with hyperlipidemia.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 October 2020 and was last updated on 26 October 2020 (registration number INPLASY2020100100).

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collect randomized controlled trials (RCT) of acupuncture-related therapies in the treatment of hyperlipidemia from the establishment of the databases to March 2020. The data were analyzed using Stata15.0 and WinBUGS1.4.3 software. Our aim is to compare and rank the clinical efficacy of different acupuncture and related therapies in patients with hyperlipidemia.

METHODS

Search strategy: Take PubMed as an example #1 Acupuncture[MeSH Terms] #2 Acupuncture Points[MeSH Terms] #3 Acupuncture, Ear[MeSH Terms] #4 Acupuncture Analgesia[MeSH Terms] #5 Acupuncture Therapy[MeSH Terms] #6 Auriculotherapy[MeSH Terms] #7 Acupuncture*[Title/Abstract] OR Needling[Title/Abstract] OR Electroacupuncture* [Title/Abstract] OR Electro-acupuncture [Title/Abstract] OR Acupoint Therapy[Title/Abstract] OR Acupuncture Treatment[Title/Abstract] OR Acupuncture Treatments[Title/Abstract] OR Needle Therapy[Title/Abstract] OR silver needle[Title/Abstract] OR moxibustion [Title/Abstract] OR de qi[Title/Abstract] OR meridian [Title/Abstract] OR Auriculotherapy[Title/Abstract] OR needle pricking[Title/Abstract] OR Transcutaneous Electric Nerve Stimulation [Title/Abstract] OR acupressure[Title/Abstract] OR needling[Title/Abstract] OR intradermal needle[Title/Abstract] OR Point application[Title/Abstract] OR fire needle[Title/Abstract] OR fire needling[Title/Abstract] OR three-edged needle[Title/Abstract] OR blood letting Therapy [Title/Abstract] OR pricking blood therapy[Title/Abstract] OR a-shi point [Title/Abstract] OR point injection [Title/Abstract] OR Hydro acupuncture[Title/Abstract] OR Needle Warming Therapy[Title/Abstract] OR scalp acupuncture[Title/Abstract] OR auricular acupuncture[Title/Abstract] OR ear acupuncture[Title/Abstract] OR intradermal needling[Title/Abstract]. #8 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 #9 Hyperlipidemias [Mesh] #10 Hyperlipemia[Title/Abstract] OR

Hyperlipemias[Title/Abstract] OR Hyperlipidemia[Title/Abstract] OR Lipidemia[Title/Abstract] OR Lipidemias[Title/Abstract] OR Lipemia[Title/Abstract] OR Lipemias[Title/Abstract] #11 #9 OR #10 #12 Randomized Controlled Trial [Publication Type] #13 Randomized Controlled Trials as Topic[MeSH Terms] #14 Randomized Controlled Trial[All Fields] OR random*[Title/Abstract] OR RCT[All Fields] OR Trial*[All Fields] #15 #12 OR #13 OR #14 #16 #8 AND #11 AND #15.

Participant or population: Patients with hyperlipidemia. We analyzed a total of 36 eligible studies that included 2844 hyperlipidemia patients.

Intervention: Acupuncture-related therapies compared with statin lipid-lowering drugs for patients with hyperlipidemia.

Comparator: Acupuncture-related therapies compared with statin lipid-lowering drugs for patients with hyperlipidemia

Study designs to be included: randomized controlled trials (RCT).

Eligibility criteria: 1. The published clinical randomized controlled trials (RCT) of acupuncture-related therapies for the treatment of primary hyperlipidemia, regardless of age and gender. 2. Clear diagnostic criteria are required to be diagnosed as primary hyperlipidemia. The intervention measures of the treatment group are various acupuncture-related therapies, including simple acupuncture, electroacupuncture, warm-needling moxibustion, auricular acupuncture, acupoint injection, acupoint embedding or a combination of acupuncture and drugs; the control group is statin lipid-lowering western medicine Or placebo, or comparison between various acupuncture-related therapies. 3. The report results are required to include at least one of the following outcome indicators: TC, TG, LDL-C, HDL-C. 4. The language of the publication is limited to Chinese or English.

Information sources: We searched three English databases: PubMed, Embase, Cochrane Library, and four Chinese databases: CBM, CNKI, Wanfang data, and VIP. The search time was from the establishment of the database to April 1, 2020, using subject terms and free words. Combining methods, and retrospectively included references in the literature, to supplement the acquisition of relevant literature.

Main outcome(s): TC[total cholesterol], TG[triglyceride], LDL-C[low density lipoprotein cholesterol], HDL-c[high density lipoprotein cholesterol]

Quality assessment / Risk of bias analysis: Our two researchers evaluated the included studies according to the bias risk assessment tool recommended by the Cochrane Handbook 5.1. However, acupuncture and related therapies were non-pharmacological therapies, so some participants and researchers involved in these studies were not able to be blinded.

Strategy of data synthesis: Statistical analysis was performed using Stata 15.0 and WinBUGS 1.4.3 software. TC, TG, LDL-C, HDL-C are numerical variables, and the difference before and after treatment is used as the effect size. In some trials, the change between baseline and after treatment failed to show, and the missing data was estimated using the formula recommended by the Cochrane Handbook 5.1. First, use the Stata15.0 program to draw a network relationship diagram. If the document is a three-arm or more than three-arm test, it will be split and reorganized into all paired two-arm tests; then run the WinBugs1.43 program and set the number of iterations For 50,000 times, conduct a net-like Meta analysis; use the 95% confidence interval of inconsistency factors to judge the consistency of the closed loop. For the closed loop, if the IF value 95% CI contains 0, It means that the direct evidence and indirect evidence are consistent, otherwise it means that there is a greater possibility of inconsistency. Then use the Stata15.0 program to draw a funnel chart to determine whether there is

evidence of a small sample effect in the included literature. Finally, use STATA15.0 to generate a cumulative ranking curve (SUCRA) to show the SUCRA scores of all interventions. A higher SUCRA score means a higher treatment grade.

Subgroup analysis: We perform subgroup analysis based on different outcome indicators

Sensibility analysis: The main methods of sensitivity analysis are: changing the inclusion criteria, excluding low-quality studies, using different statistical methods/models to analyze the same data, etc.

Language: The language of the publication is limited to Chinese or English.

Country(ies) involved: China.

Keywords: Acupuncture; Hyperlipidemia; Network Meta-Analysis(NMA); Total Cholesterol(TC); Triglyceride(TG); Low Density Lipoprotein Cholesterol(LDL-C); High Density Lipoprotein Cholesterol(HDL-C).

Contributions of each author:

Author 1 - Xue-Song WANG.

Author 2 - Jia-Jia LI.

Author 3 - Yue-Shen WANG.

Author 4 - Chao-Chao YU.

Author 5 - Chuan HE.

Author 6 - Zhong-Shen HUANG.

Author 7 - Miao WU.

Author 8 - Li-Hong KONG.