INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Efficacy and safety of treating hypertension with anxiety from the perspective of liver: A systematic review and meta-analysis

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Review question / Objective: **Efficacy and safety of treating hypertension with anxiety from the perspective of liver.**
Condition being studied: **People who knew they had high blood pressure and were treated to lower their blood pressure had a higher risk of anxiety than people who had high blood pressure but did not know or treat it. At present, the disease is mainly treated by lowering blood pressure combined with anti-anxiety drugs, but anti-anxiety drugs are dependent and addictive, and expensive, and patients have poor tolerance and compliance. Studies have shown that Traditional Chinese medicine can reduce patients' blood pressure levels and improve anxiety with fewer adverse reactions.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 May 2022 and was last updated on 04 May 2022 (registration number INPLASY202250021).

INTRODUCTION

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shown that Traditional Chinese medicine can reduce patients' blood pressure levels and improve anxiety with fewer adverse reactions.

METHODS

Participant or population: Patients diagnosed with hypertension and anxiety.

Intervention: All patients received conventional antihypertensive medications or combined antianxiety medications. The experimental group was treated with TCM syndrome differentiation on the basis of control group or conventional hypotensive therapy.

Comparator: Conventional antihypertensive medications or combined antianxiety medications were used.

Study designs to be included: Randomized controlled trials(RCTs).

Eligibility criteria: Using any recognized diagnostic criteria was diagnosed as hypertension combined with anxiety, and clear TCM syndrome differentiation for "hyperactive liver fire" "liver depression to fire" "liver Yang on hyperactivity" and other syndromes.

Information sources: Electronic search from 2012 to April 2022, using a combination of subject words and free words, Six databases (Cochrane Library, PubMed, EMBASE, CNKI, VIP and WanFang) were searched to identify eligible RCTs.

Main outcome(s): The main results were antihypertensive efficiency and anxiety score.

Additional outcome(s): Additional outcome(s) were hypotensive efficacy (systolic blood pressure, diastolic blood pressure, systolic blood pressure variability, diastolic blood pressure variability), TCM syndrome efficacy (TCM syndrome score, TCM syndrome effective rate) and adverse reactions.

Quality assessment / Risk of bias analysis: According to the guidance of the Cochrane Handbook for Systematic Review of Interventions Two researchers will assess the risk of bias for each eligible trial from 7 aspects and 3 levels independently.The seven aspects of the risk of bias include Random sequence generation,Allocation concealment,Blinding of participants and personnel,Blinding of outcome assessment ,Incomplete outcome data,Selective reporting and Other bias . Each aspect is further divided as 3 different levels: high, unclear,or low risk of bias.Any disagreements will be resolved via discussion with a third researcher.

Strategy of data synthesis: RevMan5.4.1 software was used to process the extracted data. Relative risk (RR) was used to describe dichotomous variables, mean difference (MD) was used to describe continuous variables, and 95% confidence interval (CI) was used to describe the interval estimation of outcome index data. The heterogeneity between studies was tested by Q and I2 statistics. When P> 0.1 and I2 < 50%, a fixed effects model was used for the meta-analysis; otherwise, a random effects model was used.

Subgroup analysis: In order to find out the source of heterogeneity, age, experimental group and TCM dosage form of each study were used as independent variables for subgroup analysis. If the data is insufficient, qualitative synthesis is carried out. If the data is insufficient, quantitative synthesis is performed.

Sensitivity analysis: If there is heterogeneity in the results, we will look for the source of heterogeneity and conduct sensitivity analysis by converting the random effects model to the fixed effects model to determine whether the results are stable.Sensitivity analysis was conducted by using single removal method to evaluate the stability of meta-analysis.

Country(ies) involved: China.

Keywords: Hypertension with anxiety;From the liver treatment; Clearing liver

fire;Soothe and clear the liver; Calm the liver.

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