Effectiveness and Safety of Traditional Chinese Medicine in the Treatment of Chronic Glomerulonephritis: A Systematic Review and Meta-Analysis

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Review question / Objective: The aim of this meta-analysis of randomized controlled trials is to evaluate the efficacy and safety of Chinese herbal medicine for chronic glomerulonephritis.

Condition being studied: Chronic glomerulonephritis is characterized by hematuria, proteinuria, hypertension, edema. Continuous progression may lead to end-stage renal decline and even kidney failure. However there is no specific treatment for chronic glomerulonephritis. Traditional Chinese medicine has accumulated a great deal of experience in the treatment of glomerulonephritis. This study aims to systematically evaluate the efficacy and safety for chronic glomerulonephritis.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 28 August 2021 and was last updated on 28 August 2021 (registration number INPLASY202180108).

INTRODUCTION

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METHODS

Participant or population: Patients with chronic glomerulonephritis.

Intervention: Oral Chinese herbal medicine was used on the basis of chronic glomerulonephritis conventional treatments.

Comparator: Placebo, conventional pharmacotherapy. Other therapies will be excluded.

Study designs to be included: Only randomized clinical trials will be included.

Eligibility criteria: RCT applying Chinese herbal medicine to treat chronic glomerulonephritis. Meet the diagnostic criteria of chronic glomerulonephritis.


Main outcome(s): Clinical efficacy rate, 24-hour urine protein, serum creatinine (Scr), Blood Urea Nitrogen (BUN), Serum albumin (ALB), Adverse events.

Data management: All the stages of data extraction will be done according to the PRISMA flow diagram. Two authors will individually screen published papers, discrepancies will be resolved by mutual consent obtained from the third author.

Quality assessment / Risk of bias analysis: The risk of bias in included studies will be assessed using the Cochrane risk of bias assessment tool. The following domains will be assessed: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective outcome reporting and other bias. Two reviewers will evaluate every eligible study independently, and discrepancies will be solved by discussion with a third methodologist.

Strategy of data synthesis: Data analyses will be performed using RevMan software, provided by the Cochrane Collaboration.

Subgroup analysis: Subgroup analyses will be conducted across primary outcomes based on the type of studies, size, etc.

Sensitivity analysis: We will conduct sensitivity analyses by omitting studies one by one to probe the impact of an individual study.

Country(ies) involved: China.

Keywords: Traditional chinese medicine; Chronic glomerulonephritis; Meta-analysis.

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