INPLASY PROTOCOL

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None declared.

Meta-analysis of the treatment of chronic gastritis infected by Helicobacter pylori by clearing heat and removing dampness combined with quadruple therapy and the mechanism of common drugs

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Review question / Objective: **The purpose of this study is to comprehensively evaluate the published clinical efficacy of heat-clearing and dampness-promoting traditional Chinese medicines combined with quadruple therapy in the treatment of chronic gastritis infected by HP, and to preliminarily clarify the potential mechanism of heat-clearing and dampness-promoting traditional Chinese medicines by using network pharmacology, so as to provide evidence-based medical evidence and reference for clinical application.**
Information sources: **Search China National Knowledge Infrastructure (CNKI), Wanfang, VIP, Chinese Medical Journal, Chinese Biomedical Literature Service System (SnioMed), PubMed, and Web of Science databases, and the search time limit is from the establishment of the database to November 2022**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 02 February 2023 and was last updated on 02 February 2023 (registration number INPLASY202320007).

INTRODUCTION

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medicines by using network pharmacology, so as to provide evidence-based medical evidence and reference for clinical application.

Condition being studied: Chronic Gastritis is a common digestive tract disease with inflammatory lesions of gastric mucosa caused by various reasons, with an incidence rate of about 90.0%[1,2]. The pathogenic causes include Helicobacter pylori (HP) infection. HP is a gram-negative bacterium with strong viability. When people are infected, HP is usually distributed on the epithelial surface of gastric mucosa and the bottom layer of gastric mucus, and the enzymes and toxins produced neutralize gastric acid. Studies have confirmed that HP is highly related to gastritis, gastric atrophy, duodenal ulcer and even gastric cancer [3], and the Basic Level Standardized Diagnosis and Treatment of Helicobacter pylori infection published in 2020 [4] pointed out that the infection rate of HP in China is as high as 50%, and it is difficult to recover after HP infection, which seriously reduces the quality of life of patients and causes a huge disease burden to society.

METHODS

Participant or population: Patients with chronic gastritis infected by HP.

Intervention: Quadruple therapy combined with clearing heat and removing dampness.

Comparator: Quadruple therapy (two antibiotics+proton pump inhibitor+ bismuth).

Study designs to be included: RCT.

Eligibility criteria: Meet the diagnostic criteria of chronic gastritis, helicobacter pylori, damp-heat in spleen and stomach, and refer to China Consensus Opinion on Chronic Gastritis , Consensus Opinion of TCM Diagnosis and Treatment Experts on Chronic Gastritis , 13C, 14C, etc.

Information sources: Search China National Knowledge Infrastructure (CNKI), Wanfang, VIP, Chinese Medical Journal, Chinese Biomedical Literature Service System (SnioMed), PubMed, and Web of Science databases, and the search time limit is from the establishment of the database to November 2022

Main outcome(s): ① eradication rate of HP; ② Clinical efficacy.

Additional outcome(s): ① TCM syndrome integral; ② Grading curative effect of mucosal lesions; ③ Serum levels of inflammatory factors such as TNF-a, IL-6 and IL-8; ④ Recurrence rate of HP; ⑥ Safety comparison.

Quality assessment / Risk of bias analysis: Cochrane Cooperative Network Bias Risk Assessment Tool.

Strategy of data synthesis: Meta-analysis of data was performed using RevMan 5.4 and R4.2.2 software. relative risk (RR) was used as the effect index for dichotomous variables, and mean difference (MD) was used as the effect index for continuous variables. 95% confidence intervals (CI) were calculated for both. Q test and I2 test were used to test the heterogeneity. If $P>0.10$ and $I2<50\%$, the heterogeneity between the studies was considered to be small, and fixed effects model was used. Otherwise, the random effects model is used. Funnel plot was used to evaluate the potential publication bias of the main observation indicators, and $P\leq0.05$ was considered as statistically significant difference.

Subgroup analysis: Subgroup analysis according to different TCM syndromes

Sensitivity analysis: Sensitivity analysis is carried out in R language, and the sensitivity of one article is reflected by the change of effect quantity after deleting it.

Country(ies) involved: China.

Keywords: Helicobacter pylori infection chronic gastritis; Quadruple therapy;

clearing Draining Dampness; Meta analysis; network pharmacology; efficacy; mechanismheat and Draining Dampness; Meta analysis; network pharmacology; efficacy; mechanism.

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