

## Efficacy and Safety of Chinese Herbal Medicine Combined with Western Medicine Versus Western Medicine Alone for Chronic Atrophic Gastritis: A Systematic Review and Meta-Analysis

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**ADMINISTRATIVE INFORMATION****Support** - General Program of Wuxi Municipal Health Commission (MS201954).**Review Stage at time of this submission** - Completed but not published.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202660025**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 5 June 2026 and was last updated on 5 June 2026.**INTRODUCTION**

**Review question / Objective** To assess the clinical efficacy and safety of CHM combined with WM versus WM alone for the treatment of CAG compare the.

**Condition being studied** Chronic atrophic gastritis (CAG) is a precancerous lesion of gastric cancer, with limited efficacy and potential long-term adverse effects associated with conventional Western medicine (WM) treatment. In China, Chinese herbal medicine (CHM) is frequently used as an adjunctive therapy to WM for CAG. However, the additive efficacy and safety of combining CHM with WM remain systematically unclear..

**METHODS****Search strategy** PubMed:

#1 "Chronic Atrophic Gastritis"[Mesh] OR "Gastritis, Atrophic"[Title/Abstract] OR "Atrophic Gastritis"[Title/Abstract] OR "CAG"[Title/Abstract]

#2 "Drugs, Chinese Herbal"[Mesh] OR "Chinese Herbal Drugs"[Title/Abstract] OR "Chinese Herbal Medicine"[Title/Abstract] OR "Traditional Chinese Medicine"[Title/Abstract] OR "Herbal Medicine"[Title/Abstract] OR "Chinese herb\*"[Title/Abstract] OR "TCM"[Title/Abstract]

#3 "Western Medicine"[Mesh] OR "Conventional Medicine"[Title/Abstract] OR "Allopathic Medicine"[Title/Abstract] OR "Pharmacotherapy"[Title/Abstract] OR "Western drug\*"[Title/Abstract] OR "Chemical drug\*"[Title/Abstract]

#4 "Combined Therapy"[Title/Abstract] OR "Combination Therapy"[Title/Abstract] OR "Integrated Therapy"[Title/Abstract] OR "Integrated Chinese and Western Medicine"[Title/Abstract] OR "Combined modality"[Title/Abstract]

#5 "Randomized Controlled Trial"[Publication Type] OR "Controlled Clinical Trial"[Publication Type] OR "Randomized"[Title/Abstract] OR "Randomised"[Title/Abstract] OR "RCT"[Title/Abstract] OR "Random allocation"[Mesh]

#6 #1 AND (#2 OR #4) AND #3 AND #5

#7 #1 AND #2 AND #3 AND #5  
#8 #6 OR #7

EmBase:

#1 'chronic atrophic gastritis'/exp OR 'atrophic gastritis':ab,ti OR cag:ab,ti  
#2 'chinese herbal drug'/exp OR 'chinese medicine'/exp OR 'traditional chinese medicine'/exp  
#3 'chinese herbal medicine':ab,ti OR 'traditional chinese medicine':ab,ti OR tcm:ab,ti  
#4 'western medicine'/exp  
#5 'conventional medicine':ab,ti OR 'allopathic medicine':ab,ti  
#6 'combination therapy'/exp  
#7 'combined therapy':ab,ti OR 'integrated therapy':ab,ti  
#8 #1 AND (#2 OR #3 OR #6 OR #7) AND (#4 OR #5)  
#9 'randomized controlled trial'/exp OR 'controlled clinical study'/exp  
#10 random\*:ab,ti OR rct:ab,ti  
#11 #8 AND (#9 OR #10)

Cochrane Library:

#1 MeSH descriptor: [Chronic Atrophic Gastritis] explode all trees  
#2 (atrophic gastritis):ti,ab,kw OR CAG:ti,ab,kw  
#3 MeSH descriptor: [Drugs, Chinese Herbal] explode all trees  
#4 (chinese herbal medicine):ti,ab,kw OR (traditional chinese medicine):ti,ab,kw OR (herbal medicine):ti,ab,kw OR TCM:ti,ab,kw  
#5 MeSH descriptor: [Western Medicine] explode all trees  
#6 (western medicine):ti,ab,kw OR (conventional medicine):ti,ab,kw OR (western drug\*):ti,ab,kw  
#7 (combined therapy):ti,ab,kw OR (combination therapy):ti,ab,kw OR (integrated therapy):ti,ab,kw  
#8 #1 OR #2  
#9 (#3 OR #4) OR #7  
#10 #5 OR #6  
#11 #8 AND #9 AND #10  
#12 (random\*):ti,ab,kw OR (RCT):ti,ab,kw OR (controlled clinical trial):ti,ab,kw  
#13 #11 AND #12

CNKI:

(SU%='慢性萎缩性胃炎' OR SU%='萎缩性胃炎' OR SU%='CAG') AND  
(SU%='中草药' OR SU%='中药' OR SU%='中西医结合' OR SU%='联合用药' OR SU%='中药联合') AND (SU%='西药' OR SU%='西医疗法' OR SU%='化学药' OR SU%='常规治疗') AND (SU%='随机' OR SU%='随机对照' OR SU%='RCT')

Wanfang:

主题:(“慢性萎缩性胃炎” OR “萎缩性胃炎” OR “CAG”) AND 主题:(“中草药” OR “中药” OR “中西医结合” OR “联合用药” OR “中药联合”) AND 主题:(“西药” OR “西医疗法” OR “化学药” OR “常规西药”) AND 主题:(“随机” OR “随机对照” OR “RCT”)

VIP:

(U=慢性萎缩性胃炎 OR U=萎缩性胃炎 OR U=CAG) AND (U=中草药 OR U=中药 OR U=中西医结合 OR U=联合用药 OR U=中药联合) AND (U=西药 OR U=西医疗法 OR U=化学药 OR U=常规西药) AND (U=随机 OR U=随机对照 OR U=RCT) .

**Participant or population** Patients diagnosed with CAG based on gastroscopy and histopathological examination, with no restrictions on age, sex, disease duration, or severity.

**Intervention** The experimental group received CHM (including oral formulations such as decoctions, granules, capsules, or tablets, either as a single herb or compound formula) combined with WM.

**Comparator** The control group received the same WM alone, and the type, dosage, and treatment duration of WM were required to be consistent between the two groups.

**Study designs to be included** RCTs.

**Eligibility criteria** The inclusion criteria were as follows: (1) Study type: randomized controlled trials (RCTs), regardless of blinding or allocation concealment, with publications in Chinese or English; (2) Participants: patients diagnosed with CAG based on gastroscopy and histopathological examination, with no restrictions on age, sex, disease duration, or severity; (3) Interventions: the experimental group received CHM (including oral formulations such as decoctions, granules, capsules, or tablets, either as a single herb or compound formula) combined with WM; the control group received the same WM alone, and the type, dosage, and treatment duration of WM were required to be consistent between the two groups; (4) Outcome measures: the primary outcomes were clinical effective rate (comprehensively assessed based on improvements in clinical symptoms and gastroscopic pathology) and H. pylori eradication rate. Secondary outcomes included the changes in traditional Chinese medicine syndrome scores,

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IL-6, TNF- $\alpha$ , gastrin, and incidence of adverse events.

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**Information sources** PubMed, Embase, Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Data Knowledge Service Platform, and VIP Chinese Science and Technology Periodical Database.

**Main outcome(s)** Clinical effective rate (comprehensively assessed based on improvements in clinical symptoms and gastroscopic pathology) and H. pylori eradication rate.

**Additional outcome(s)** The changes in traditional Chinese medicine syndrome scores, IL-6, TNF- $\alpha$ , gastrin, and incidence of adverse events.

**Quality assessment / Risk of bias analysis** The methodological quality of the included RCTs was assessed using the Risk of Bias tool recommended by the Cochrane Collaboration.

**Strategy of data synthesis** A random-effects model was applied for all meta-analyses to account for potential heterogeneity across studies.

**Subgroup analysis** Subgroup analyses were conducted based on sample size, age, proportion of male patients, disease duration, and treatment duration.

**Sensitivity analysis** A leave-one-out analysis was performed to evaluate the influence of individual studies on the pooled effect size and to test the robustness of the results.

**Language restriction** No restriction.

**Country(ies) involved** China.

**Keywords** Chronic atrophic gastritis; Chinese herbal medicine; integrative medicine; meta-analysis; systematic review.

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