INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Efficacy and Safety of acupoint catgut embedding for chronic atrophic gastritis
A protocol of systematic review and meta-analysis

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Review question / Objective: **This systematic review protocol aims to provide the methods used to evaluate the effectiveness and safety of acupoint catgut embedding therapy for treating chronic atrophic gastritis.**
Condition being studied: **Acupoint catgut embedding, chronic atrophic gastritis, atrophic gastritis.**
Study designs to be included: **Randomized controlled trials (RCTs) of acupoint catgut embedding therapy for chronic atrophic gastritis will be included. Non-RCTs, uncontrolled clinical trials, reviews, case reports, animal experiments, meta-analysis and repeated publications will be excluded.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 April 2022 and was last updated on 07 April 2022 (registration number INPLASY202240040).

INTRODUCTION

Review question / Objective: **This systematic review protocol aims to provide the methods used to evaluate the effectiveness and safety of acupoint catgut embedding therapy for treating chronic atrophic gastritis.**

Condition being studied: **acupoint catgut embedding, chronic atrophic gastritis, atrophic gastritis.**

METHODS

Search strategy: The following databases will be searched from inception to April 2022: PubMed, Embase, CENTRAL,Web of Science,CNKI, VIP, CBM, Wan Fang Data, the search terms ("acupoint catgut embedding") AND ("chronic atrophic gastritis") AND "Random*" were used in the English-language databases, while manxingweisuoxingweiyan,xueweimaixian, and suiji were used in the Chinese-language databases.

Participant or population: Participants with a diagnosis of chronic atrophic gastritis will be included regardless of their age, gender, race, education or economic status.

Intervention: Experimental group was treated with acupoint catgut embedding alone or in combination with other adjunct interventions were included(body acupuncture, auricular acupuncture, moxibustion, western medicine, traditional herbs).

Comparator: control group were treated by any other therapies, such as western medicine, traditional herbs, body acupuncture, moxibustion, auricular needle, and other conventional therapies.

Study designs to be included: Randomized controlled trials (RCTs) of acupoint catgut embedding therapy for chronic atrophic gastritis will be included. Non-RCTs, uncontrolled clinical trials, reviews, case reports, animal experiments, meta-analysis and repeated publications will be excluded.

Eligibility criteria: Two of the review authors will independently scan the full texts of each article to extract the data via a standardized data abstraction form. Basic general information will be extracted, including authors, year of publication, age, gender, disease duration, the duration of follow-up, sample size, details of intervention and control. Outcome and further information including results, adverse events, and conflicts of interest will be extracted as well. Any disagreements will be discussed and judged between two reviewers. The final results of the extraction and further disagreements will be checked and arbitrated by the third reviewer.

Information sources: PubMed, Embase, CENTRAL,Web of Science,CNKI, VIP, CBM, Wan Fang Data.

Main outcome(s): The primary outcome at the end of treatment or at maximal follow-up is the clinical effectiveness rate, which is categorized as cure, markedly effective, effective, or ineffective according to clinical symptoms, degree of gastric mucosal lesion under gastroscopy and pathological changes of gastric mucosa.

Additional outcome(s): The secondary outcomes will include clearance of H pylori infection, quality of life (SF-36), symptom scores (stomachache, stomach distention, belching, and acid reflux, etc), and comparison of curative effect of pathological tissue, etc.

Data management: Two of the review authors will independently scan the full texts of each article to extract the data via a standardized data abstraction form. Basic general information will be extracted, including authors, year of publication, age, gender, disease duration, the duration of follow-up, sample size, details of intervention and control. Outcome and further information including results, adverse events, and conflicts of interest will be extracted as well. Any disagreements will be discussed and judged between two reviewers. The final results of the extraction and further disagreements will be checked and arbitrated by the third reviewer.

Quality assessment / Risk of bias analysis: The risk and bias in included studies will be assessed by three independent reviewers using the Cochrane Collaboration's tool,which consists the following seven domains: random sequence generation, allocation concealment, blinding of participants, personnel and outcome, incomplete outcome data addressed,

selective reporting and other bias. The quality of the reporting will be categorized into three levels: low risk of bias, unclear risk of bias, or high risk of bias. Discrepancies will be discussed among the three raters to come to a consensus. If necessary, a senior reviewer will be consulted.

Strategy of data synthesis: RevMan 5.4 (Cochrane, London, UK) was used to carry out the meta-analysis. For dichotomous variables, relative risk (RR) estimates with 95% confidence intervals (CIs) were calculated. For continuous variables, weighted mean differences (WMDs) with 95% CIs were calculated. If $P < 0.01$ and $I2 < 50\%$, the fixed effect model was adopted for the meta analysis. Otherwise, the sources of heterogeneity were further analysed. After excluding the influence of marked clinical heterogeneity, a random effects model was adopted to perform the meta-analysis. Sensitivity and bias risk analyses were also performed. Finally, we reported a general descriptive analysis of adverse reactions.

Subgroup analysis: Subgroup analyses for different treatment methods were performed when the necessary data were available. Analysis of funnel plot symmetry were used to identify the existence of publication bias.

Sensitivity analysis: If the result shows high heterogeneity (I2 test is >50%), we will conduct a sensitivity analysis. We will then acquire a stable result of our study.

Country(ies) involved: China.

Keywords: acupoint catgut embedding; chronic atrophic gastritis; systematic review and meta-analysis.

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