

# INPLASY PROTOCOL

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**Conflicts of interest:**  
None declared.

## Acupoint catgut embedding for the treatment of peptic ulcers: A protocol for a systematic reviews and meta-analysis

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**Review question / Objective:** Can acupoint catgut embedding improve epigastric pain symptoms in patients with peptic ulcer and improve clinical efficacy?

**Condition being studied:** Peptic ulcer (PU) is a common clinical disease of the digestive system, which can occur in all ages, gastric and duodenal ulcers are the most commonly seen PUs in clinical practice. The main manifestations are chronic and periodic rhythmic upper abdominal pain, accompanied by indigestion symptoms such as pantothenic acid, belching, and nausea. Serious complications such as bleeding, perforation, obstruction and canceration are easy to occur, endangering the life safety of patients. There are many ways to treat PU in clinic, and acupoint catgut embedding therapy has its unique advantages. Hence, our systematic review aims to evaluate the efficacy and safety of acupoint embedding therapy in the treatment of PU and to provide a reliable basis for physician.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 March 2021 and was last updated on 26 March 2021 (registration number INPLASY202130097).

### INTRODUCTION

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digestive system, which can occur in all ages, gastric and duodenal ulcers are the most commonly seen PUs in clinical practice. The main manifestations are chronic and periodic rhythmic upper abdominal pain, accompanied by indigestion symptoms such as pantothenic acid, belching, and nausea. Serious complications such as bleeding,

perforation, obstruction and canceration are easy to occur, endangering the life safety of patients. There are many ways to treat PU in clinic, and acupoint catgut embedding therapy has its unique advantages. Hence, our systematic review aims to evaluate the efficacy and safety of acupoint embedding therapy in the treatment of PU and to provide a reliable basis for physician.

## METHODS

**Search strategy:** We will search electronic databases including PubMed, Embase, Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Database (WF), China Biomedical Literature Database (CBM), and China Scientific Journals Database (VIP) from establishment to April 2021, and will manually searched the list of medical journals as a supplement. Two authors will screen the studies independently, as well as extract data information, and assess methodological quality through the Cochrane risk of bias (ROB) tool. The Stata software (Version 16.0) software will be used for statistical analysis.

**Participant or population:** Participants are peptic ulcer's disease patients.

**Intervention:** Catgut embedding at acupoint can dredge meridians, smooth qi and blood, coordinate viscera and restore long-term benign stimulation of qi rise and fall, which is conducive to the healing of ulcers

**Comparator:** Participants without acupoint catgut embedding therapy.

**Study designs to be included:** Randomized controlled trials.

**Eligibility criteria:** RCTs assessing acupoint catgut embedding treatment for PU will be eligible for inclusion and were published in English or Chinese ,with the full-text available.PU patients with diagnostic criteria will be included.

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Embase, Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Database (WF), China Biomedical Literature Database (CBM), and China Scientific Journals Database (VIP) from establishment to April 2021, and will manually searched the list of medical journals as a supplement.

**Main outcome(s):** The total effective rate, Hp eradication rate, recurrence rate of ulcers.

**Additional outcome(s):** The adverse reactions, electronic gastroscopy ulcer healing rate and clinical symptom score.

**Quality assessment / Risk of bias analysis:** The risk of bias (ROB) assessment tool recommended by Cochrane Collaboration Network was used to evaluate the quality of the included studies. Including the following 7 evaluation items: (1) random sequence generation; (2) allocation concealment; (3) blinding of participants and personnel; (4) blinding of outcome assessment; (5) incomplete outcome data; (6) selective reporting; (7) other sources of bias. For each study, the results were rated as "Yes" (low risk), "No" (high risk) and "unclear" (lack of relevant information or uncertainty about bias) for above seven items. Two reviewers independently performed quality assessment and all disagreements will be resolved by discussion.

**Strategy of data synthesis:** We will use the Stata software (Version 16.0) software for statistical analysis. For continuous variables, when outcomes were measured by the same scale, the results were reported as standardized mean difference (MD) and 95% confidence interval (CI); when different scales were used, the results were reported as standardized mean difference (SMD) and 95% CI. Categorical data will be calculated with the risk ratio (RR) and 95% CI. We will use I<sup>2</sup> test and Chi-square test to evaluate the heterogeneity of the results. When I<sup>2</sup>≤50% and P>0.10 , the results of the study will be considered as homogeneous, and fixed

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effect model will be used; otherwise, random effect model will be used.

**Subgroup analysis:** If significant heterogeneity is detected in our meta-analysis, we will perform subgroup analysis based on different control groups.

**Sensitivity analysis:** When there are sufficient RCTs, we will conduct sensitivity analysis based on methodological quality, sample size and missing data to evaluate the robustness of the research results.

**Language:** Chinese and English.

**Country(ies) involved:** China.

**Keywords:** Acupoint catgut embedding, peptic ulcers, protocol, systematic review.

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