

INPLASY PROTOCOL

To cite: Yu et al. The impact of acupuncture on postoperative ileus following colorectal cancer surgery: A protocol for systematic review and meta-analysis. Inplasy protocol 202180021. doi: 10.37766/inplasy2021.8.0021

Received: 06 August 2021

Published: 06 August 2021

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Support: Grant No. 20191373.

**Review Stage at time of this
submission:** Preliminary
searches.

Conflicts of interest:
None declared.

The impact of acupuncture on postoperative ileus following colorectal cancer surgery: A protocol for systematic review and meta- analysis

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Review question / Objective: 1. To evaluate the impact of acupuncture on POI after CRC surgery; 2. Provide the latest evidence of evidence-based medicine for the clinical treatment of POI after CRC surgery.

Condition being studied: Colorectal cancer (CRC) is one of the most common malignant tumors of the digestive tract, and the treatment methods include surgery, chemotherapy, radiotherapy, immunotherapy and neoadjuvant therapy, etc. Postoperative ileus (POI) is a frequent occurrence after abdominal and other types of surgery. Acupuncture can improve gastrointestinal motility. This study aims to evaluate the impact of acupuncture on postoperative ileus following CRC surgery.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 06 August 2021 and was last updated on 06 August 2021 (registration number INPLASY202180021).

INTRODUCTION

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gastrointestinal motility. This study aims to evaluate the impact of acupuncture on postoperative ileus following CRC surgery.

METHODS

Participant or population: All postoperative patients with CRC, regardless the age, gender, race, country and diseases.

Intervention: Combine acupuncture on the routine perioperative treatment, such as body acupuncture, electro-acupuncture, auricular acupuncture, warm acupuncture, fire needling, elongated needle and moxibustion.

Comparator: XRoutine perioperative treatment, such as fasting, intravenous fluid rehydration, gastrointestinal decompression, etc.

Study designs to be included: RCTs.

Eligibility criteria: All randomized controlled trials (RCTs) reported will be included without regional and language restrictions. Animal studies, cohort studies, case-controlled studies, case reports and expert experience will be excluded.

Information sources: A comprehensive search of 8 electronic databases will be performed including PubMed, Embase, Web of Science, Cochrane Library, China National Knowledge Infrastructure (CNKI), Wanfang Data, Chinese Science Journal Database (VIP database) and China Biomedical Literature Database (CBM) from setup time to June, 2021. In addition, we will also search the International Clinical Trials Registry Platform (ICTRP) and Chinese Clinical Trial Registry. The search strategy will contain CRC, POI and acupuncture treatments including “colorectal cancer”, “postoperative period”, “ileus”, “acupuncture”, “electroacupuncture”, “auricular acupuncture”, “acupuncture therapy” and similar terms. MeSH terms were used and combined with free-text words. Search strategy will be adjusted depending on each database.

Main outcome(s): The first exhaust time and the first defecation time.

Additional outcome(s): The abdominal distension score and the bowel sound recovery time.

Quality assessment / Risk of bias analysis: There are 2 reviewers using the Cochrane Collaboration to assess the quality of articles. It includes the following 7 domains: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting and other sources of bias. Each domain includes a judgment of low (meeting all criteria), high (meeting none of criteria) and unclear (insufficient information to judge) risk of bias according to information provided by authors. Any disagreements between reviewers will be resolved through discussion with a third reviewer.

Strategy of data synthesis: For continuous outcomes, will be used mean difference (MD) as the effect indicator with 95% confidence interval, and dichotomous data will be calculated as risk ratio (RR) or odds ratio (OR) as the effect index with 95% confidence interval. Respectively, I^2 will be used to statistic heterogeneity, It is regarded as the boundary that if $I^2 < 40\%$, a fixed will be more suitable, if $I^2 \geq 40\%$ and $< 75\%$, a random effect model will be performed, otherwise, there is considerable heterogeneity between studies. The Review Manager (RevMan) V.5.4 software will be used for statistical analysis.

Subgroup analysis: The subgroup analysis will be conducted if there is obviously substantial heterogeneity between the study results, following items will be considered: type of acupuncture, gender, age, and outcome styles.

Sensitivity analysis: We will perform the sensitivity analysis to verify the robustness of the results. It includes the impact of methodological quality, study design and sample size.

Country(ies) involved: China.

Keywords: postoperative ileus, colorectal cancer; acupuncture; gastrointestinal function.

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