INPLASY

The Efficacy of Acupoint Application Therapy for Gastrointestinal Dysfunction in ICU Patients: A Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - Not applicable.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 January 2025 and was last updated on 20 January 2025.

INTRODUCTION

Review question / Objective This meta-analysis aims to evaluate the efficacy of acupoint application therapy in promoting bowel sound recovery and improving GID in ICU patients compared to conventional Western medicine treatments.

Condition being studied ICU patients with gastrointestinal dysfunction.

METHODS

Participant or population ICU patients with gastrointestinal dysfunction.

Intervention Acupoint application therapy.

Comparator Conventional western medicine treatment.

Study designs to be included RCT.

Eligibility criteria
Inclusion criteria:
1)Subjects: ICU patients with GID
2) Interventions: Acupoint application therapy
3) Control: Conventional western medicine treatment
4) Outcome Indicators: Time to first anal exhaust (h), time to first defecation (h), bowel sound recovery time (h), resumption of eating time (h), intra-abdominal pressure (mmHg) and APACHEIIscore.
5) Study design: Randomized controlled trial (RCT).
Exclusion criteria:
Duplicate publications; studies for which full text was not available or for which data extraction was not possible; studies using animal studies; reviews and systematic reviews.

Information sources PubMed, Embase, Cochrane Library, CNKI, Wanfang, CQVIP and CBM databases.

Main outcome(s) Time to first anal exhaust (h), time to first defecation (h), bowel sound recovery time (h), resumption of eating time (h), intra-abdominal pressure (mmHg) and APACHEIIscore.

Quality assessment / Risk of bias analysis Two researchers independently assessed the quality of the included literature using the Review Manager 5.3 risk assessment tool. The evaluation criteria included random sequence generation, allocation concealment, blinding, blinding of outcome assessments, completeness of outcome data, selection of reported research outcomes, potential biases, and other factors, following the Cochrane Risk Assessment Scale. Any disagreements were resolved through discussion or consultation with a third party. The meta-analysis was conducted in accordance with the relevant guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement 7.

Strategy of data synthesis Data were analyzed using STATA 15.1. Continuous variables were reported as Standardized Mean Difference (SMD) with 95% confidence intervals (CI). Heterogeneity among studies was assessed using the I^2 statistic. If $P \geq 0.1$ and $I2 \leq 50\%$, it indicated low heterogeneity, and a fixed-effects model was used for analysis. Conversely, if P50%, it indicated significant heterogeneity. In such cases, sensitivity analysis was performed to identify the source of variation. If heterogeneity remained substantial, a random-effects model was applied, or the pooled results were replaced with a descriptive analysis. Publication bias was evaluated using funnel plots and Egger's test.

Subgroup analysis Not applicable.

Sensitivity analysis We performed a sensitivity analysis to exclude each trial individually, and then performed a combined analysis of the remaining trials.

Country(ies) involved China.

Keywords Acupoint application therapy; Gastrointestinal dysfunction; ICU; Efficacy; Meta-analysis.

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