INPLASY PROTOCOL

Acupuncture PC6 for postoperative nausea and vomiting at different times :A Systemic Review and Meta-Analysis protocol

Shi, K[1]; He, F[2]; Xiao, X[3]; Wang, Y[4]; Jin, Y[5]; Zhang, Q[6]; Li, M[7]; Zhang, J[8];

Review question / Objective: Is acupuncture treatment effective for postoperative nausea and vomiting(PONV) patients? Is the effect associated with intervention time?.

Condition being studied: Postoperative nausea and vomiting(PONV) is a condition commonly present after anesthesia and surgery, with an overall incidence of 40%-90%. Despite the use of newer drugs, PONV within 24 hours still occurs in 25%-30% of patients. Though self-limiting, PONV can cause many complications and increases medical costs. Limited efficacy and side effects with antiemetics led to the use of alternative treatment. Researches in various countries believe acupuncture improves the quality of patients' life.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 03 April 2020 and was last updated on 17 April 2020 (registration number INPLASY202040012.

INTRODUCTION

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METHODS

Participant or population: Patients underwent surgery regardless of gender, type of anaesthesia or surgery.

Intervention: acupuncture or electroacupuncture.

Comparator: Medication, sham acupuncture, or no treatment.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: 1.non-randomized trials; 2. non-clinical trials; 3. patients with other co-existing acute or chronic illness;4. patients nausea and vomiting before operation; 5. patients taking anti-emetics medication before operation; 6. articles not in English or Chinese; 7. articles which data analysis did not fulfill protocol criteria.

Information sources: PubMed, Embase, the Cochrane Library, Web of Science, China National Knowledge Infrastructure(CNKI), Chinese Scientific Journal Database(VIP), and WanFang Data, Chinese Clinical Trial Register (ChiCTR) were all searched.

Main outcome(s): The primary outcome was the number of PON, POV, and PONV during (0-6 hours) and within 24 hours postoperatively (0-24 hours).

Additional outcomes: Adverse events and the frequency of acupoints used in the included studies.

Quality assessment / Risk of bias analysis: The Risks of bias will be assessed according to the Cochrane Handbook Version 5.1.0. by 2 reviewers . The following factors were assessed: 1. Randomization sequence generation: was the allocation sequence adequately generated? 2. Treatment allocation concealment: was the allocated treatment adequately concealed from study participants and clinicians and other healthcare or research staff at the enrolment stage? 3. Blinding: were the personnel assessing outcomes and analyzing data sufficiently blinded to the intervention allocation throughout the trial? 4. Completeness of outcome data: were participant exclusions, attrition, and incomplete outcome data adequately addressed in the published report? 5. Selective outcome reporting: is there evidence of selective outcome reporting and might this have affected the study results? 6. Other sources of bias: was the trial apparently free of any other problems that could produce a high risk of bias? Disagreements was solved by discussion until a consensus was reached.

Strategy of data synthesis: TData analysis will be performed with Review Manager 5.3 software provided by the Cochrane Collaboration. Effective Rate was calculated by relative risk, and the HAMA score will be calculated by mean difference. Heterogeneity is recognized as significant when $I^2 \geq 50\%$. A fixed-effect model will be performed when there is no significant heterogeneity, otherwise a random-effects model will be performed.

Subgroup analysis: Subgroup analysis will be performed for intervention time (preoperative, intraoperative, postoperative, continuous intervention).

Sensibility analysis: Sensitivity analysis will also be employed to explore possible factors that may lead to heterogeneity, such as intervention measures (electroacupuncture and manual acupuncture), control measures, length of treatment or quality of articles, etc. If quantitative synthesis is not appropriate, we will conduct a narrative synthesis.

Language: English and Chinese.

Coutries involved: China.

Keywords: Acupuncture, PC 6 points, PONV, systematic review.