INPLASY PROTOCOL

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Review Stage at time of this submission: Data analysis.

Conflicts of interest:
None declared.

Acupuncture for chemotherapy-induced myelosuppression of cervical cancer: A protocol for systematic review

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Review question / Objective: Myelosuppression is one of the most common toxicity induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer. Acupuncture has been used for treating the myelosuppression for a long time in China and other part of the Asia for a long time. The system review is designed to assess the efficacy and safety of the acupuncture treatment by combining the previous reports together.

Information sources: Databases including Pubmed, Embase, the Cochrane Library, Wanfang, China National Knowledge Infrastructure (CNKI), VIP database, and Chinese Biomedical Databases (CBM) will be used to search the studies.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 March 2022 and was last updated on 20 March 2022 (registration number INPLASY202230101).

INTRODUCTION

Review question / Objective: Myelosuppression is one of the most common toxicity induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer. Acupuncture has been used for treating the myelosuppression for a long time in China and other part of the Asia for a long time. The system review is designed to assess the efficacy and safety of the acupuncture treatment by combining the previous reports together.

Condition being studied: Myelosuppression is one of the most common toxicity induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer. Acupuncture has been used for treating the myelosuppression for a long time in China

and other part of the Asia for a long time. The system review is designed to assess the efficacy and safety of the acupuncture treatment by combining the previous reportstogether. Databases including Pubmed, Embase, the Cochrane Library, Wanfang, China National Knowledge Infrastructure (CNKI), VIP database, and Chinese Biomedical Databases (CBM) will be used to search the studies. The literature will be searched up to the March of 2022. Forest plots will be employed to show the combined result of the efficacy as well as the safety. Funnel plots will be employed to spot the publication bias visually; meanwhile, Begg's test and Egger's test will be employed to evaluate the publication bias statistically as well as Trim-and-Fill method. According to the types of bone marrow depression, subgroup analysis will be made. Subgroup analysis will also be made accordant with the acupuncture methods. Heterogeneity will be evaluated using Cochrane Q test as well as I2. Sensitivity analysis will be made to evaluate the robustness of the combined result as well as the origin of the heterogeneity.

METHODS

Participant or population: Myelosuppression induced by chemotherapy or concurrent chemo-radiotherapy (CCRT) among patients with cervical cancer.

Intervention: Acupuncure treatment.

Comparator: Acupuncture treatment or not.

Study designs to be included: RCT, cohort, case-control studies.

Eligibility criteria: All included articles must follow the disciplines below: (1) published original articles obeying peer-reviewed rules; (2) articles were published in Chinese or in English; (3) articles reporting the relationship between clinical response induced by the treatment; (4) studies with follow-up period that was at least more than 1 years for the medium value. Articles,

such as reviews and duplicated reports will be excluded.

Information sources: Databases including Pubmed, Embase, the Cochrane Library, Wanfang, China National Knowledge Infrastructure (CNKI), VIP database, and Chinese Biomedical Databases (CBM) will be used to search the studies.

Main outcome(s): Efficacy and toxicity: Acupuncture may be effective in the treatment of myelosuppression, and it may reduce hospital stay and hospitalization expenses compared with only modern medicine treatment. The toxicity and side effects induced by the acupuncture may be severe, moderate or mild with or without statistical significance.

Quality assessment / Risk of bias analysis: Funnel plots will be employed to spot the publication bias visually; meanwhile, Begg's test and Egger's test will be employed to evaluate the publication bias statistically as well as Trim-and-Fill method. According to the types of bone marrow depression, subgroup analysis will be made. Subgroup analysis will also be made accordant with the acupuncture methods. Heterogeneity will be evaluated using Cochrane Q test as well as I2. Sensitivity analysis will be made to evaluate the robustness of the combined result as well as the origin of the heterogeneity.

Strategy of data synthesis: Forest plots will be employed to show the combined result of the efficacy as well as the safety. Funnel plots will be employed to spot the publication bias visually; meanwhile, Begg's test and Egger's test will be employed to evaluate the publication bias statistically as well as Trim-and-Fill method.

Subgroup analysis: According to the types of bone marrow depression, subgroup analysis will be made. Subgroup analysis will also be made accordant with the acupuncture methods.

Sensitivity analysis: Sensitivity analysis will be made to evaluate the robustness of the

combined result as well as the origin of the heterogeneity.

Country(ies) involved: China.

Keywords: Cervical cancer; Myelosuppression; Acupuncture; Efficacy; Systematic review.

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