INPLASY PROTOCOL

The Chinese herb for multiple myeloma: A protocol of systematic review and meta-analysis

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

Conflicts of interest:
The authors have no conflicts of interest to disclose.

Review question / Objective: The benefits of Chinese herb in patients with multiple myeloma remain unclear.
Condition being studied: We intend to evaluate Chinese herb applied to multiple myeloma.
Information sources: Search strategy will be performed on 6 electronic databases: PubMed, Embase, Cochrane Library, China National Knowledge Infrastructure, Wangfang and Chinese Biomedical Literature Database. The MeSH search and text word will be used with the terms related to MM and Chinese herb. Other potentially eligible studies will also be manually searched the reference lists from the trials identified.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 January 2021 and was last updated on 13 January 2021 (registration number INPLASY202110040).

INTRODUCTION

Review question / Objective: The benefits of Chinese herb in patients with multiple myeloma remain unclear.

Condition being studied: We intend to evaluate Chinese herb applied to multiple myeloma.

METHODS

Search strategy: The databases including PubMed, Embase, Cochrane Library, China

National Knowledge Infrastructure, Wangfang and Chinese Biomedical Literature Database were retrieved from inception to publication.1. multiple myeloma; 2. plasma-cell myeloma; 3. Myelomatosis; 4. Myelomatoses; 5. plasma cell myeloma; 6. kahler disease; 7. myeloma multiple; 8. myeloma-multiple; 9. #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR#8; 10. Chinese herb; 11. Chinese medicine herb; 12. Chinese herbal medicine; 13. traditional Chinese herbal medicine; 14. traditional Chinese herbal; 15. traditional Chinese medicinal herb; 16. traditional Chinese herb; 17. #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16; 18. #9 AND #17. The search will be limited to human studies but there will be no restrictions on language, publication date or publication status. In addition, we will manually search the reference lists of relevant primary and review articles, clinical trial registries, and abstracts from recent relevant conference proceedings, as well as contacting experts in this field.

Participant or population: Adult patients were eligible for the review if they used Chinese herb therapy for multiple myeloma.

Intervention: Intervention group: receiving Chinese herb (monomers or compounds) therapy for multiple myeloma.

Comparator: Control group: receiving routine chemotherapy without Chinese herb.

Study designs to be included: Randomized controlled trials.

Eligibility criteria: Randomized controlled trial; type of participants must be patients with symptomatic diagnosed MM; Chinese herb (including monomers or compounds) must be used for intervention. Control group is routine chemotherapy without Chinese herb.

Information sources: Search strategy will be performed on 6 electronic databases: PubMed, Embase, Cochrane Library, China National Knowledge Infrastructure, Wangfang and Chinese Biomedical

Literature Database. The MeSH search and text word will be used with the terms related to MM and Chinese herb. Other potentially eligible studies will also be manually searched the reference lists from the trials identified.

Main outcome(s): The primary outcomes include the following: (1) overall survival, defined as the time from randomization to death from any cause; (2) progression-free survival, defined as the time from randomization to disease progression; (3) response rate, defined as the proportion of patients with complete or partial response; (4) duration of response, defined as the time from first documented; (5) different types of treatment-related adverse events.

Quality assessment / Risk of bias analysis: The quality of the evidence obtained for the primary endpoints will be assessed in agreement with the Grading of Recommendations Assessment, Development, and Evaluation.

Strategy of data synthesis: The meta-analysis of the included studies will be performed using Review Manager 5.3 statistical software (Cochrane Collaboration, Denmark). which provided the risk ratio (RR) with 95% CI for outcomes. Heterogeneity among trials was quantified using visual inspection of the forest plots following a chi-square test, which is expressed as I2. Statistical heterogeneity was considered relevant if I2 greater than 50%. In cases of significant heterogeneity (I2 > 50%), a random effects model was used; otherwise, a fixed effects model was applied. We considered a p value of less than 0.05 statistically significant.

Subgroup analysis: If the necessary data are available, subgroup analyses will be done for people with different drugs (monomers or compounds).

Sensibility analysis: In order to obtain a stable conclusion, a sensitivity analysis will be conducted to remove effects of trials with small sample size and remove studies

rated as high risk of bias on accounting of methodological quality.

Country(ies) involved: China.

Keywords: Chinese herb, multiple myeloma, efficacy, safety, meta-analysis.

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