

INPLASY PROTOCOL

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Corresponding author:
Lixin Liang

docllx@126.com

Author Affiliation:
Shunyi Branch, Beijing
Hospital of Traditional Chinese
Medicine.

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None declared.

Efficacy and Safety of Traditional Chinese Medicine Injections for Sepsis-induced Cardiomyopathy: A Network Meta-analysis of Randomized Controlled Trials

Liang, LX¹; Lin, MK²; Tan, YP³; Liu, HX⁴.

Review question / Objective: The aim of the review is to evaluate the clinical effect and safety of Chinese medicine injections on Sepsis-induced Cardiomyopathy with conventional treatment, to systematically review the published evidence of clinical efficacy as well as the side effects. **P:** Sepsis-induced Cardiomyopathy patients. **I:** Chinese medicine injections combined with conventional treatment. **C:** conventional treatment. Conventional treatment follows the SCCM guideline. **O:** The investigated outcomes will include mortality, cTnl, BNP, LVEF, PCT, APACHE-II score.

Information sources: We will search PubMed, Embase, Cochrane Library, Chinese National Knowledge Infrastructure (CNKI), Wanfang Database, China Biomedical Literature Database (SinoMed), VIP, up to August 2022. We will also hand-search all reference lists of the included studies to identify additional reviews of relevance. We will use the search strategy with those specified keywords: bloodstream infection, sepsis, pyemias, pyohemia, blood poisoning, bloodstream infections, blood poisonings, pyohemias, pyaemia, pyaemias, septicemia, septicemias, poisoning, myocardial injury, cardiac dysfunction, heart failure, traditional Chinese medicine, injection.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 August 2022 and was last updated on 17 August 2022 (registration number INPLASY202280065).

INTRODUCTION

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Sepsis-induced Cardiomyopathy with conventional treatment, to systematically review the published evidence of clinical efficacy as well as the side effects. **P:** Sepsis-induced Cardiomyopathy patients. **I:**

Chinese medicine injections combined with conventional treatment. C: conventional treatment. Conventional treatment follows the SCCM guideline. O: The investigated outcomes will include mortality ,cTnl, BNP, LVEF,PCT,APACHE-II score.

Condition being studied: Sepsis is a clinical syndrome caused by the dysregulation of the body's inflammatory response to infection, which causes physiological and organ function damage. Epidemiological data shows that 20.6 out of every 100 ICU patients in China are sepsis patients, and the ICU and in-hospital mortality rates are 29.6% and 32.1%, respectively, which is one of the main causes of death in clinically critical patients. Heart is one of the important target organs that easily damaged in the course of sepsis, which can be involved in the early stage of the disease. 50% of patients with sepsis will have varying degrees of myocardial depression, which will affect the circulatory function of the body. Patients with sepsis-induced cardiomyopathy (SIMD) are 20% more likely to die.

METHODS

Search strategy: We will search PubMed, Embase, Cochrane Library, Chinese National Knowledge Infrastructure (CNKI), Wanfang Database,China Biomedical Literature Database (SinoMed), VIP, up to August 2022.We will also hand-search all reference lists of the included studies to identify additional reviews of relevance. We will use the search strategy with those specified keywords:bloodstream infection、sepsis、pyemias、pyohemia、blood poisoning、bloodstream infections、blood poisonings、pyohemias、pyaemia、pyaemias、septicemia、septicemias、poisoning、myocardial injury、cardiac dysfunction、heart failure、traditional Chinese medicine、injection.

Participant or population: Our target populations are Sepsis-induced Cardiomyopathy patients, who were treated by conventional treatment.

combined with Chinese medicine injections.

Intervention: Chinese medicine injections combined with conventional treatment.

Comparator: We will compare Chinese medicine injections combined with conventional treatment to conventional treatment.

Study designs to be included: To overview the clinical effect and safety of Chinese medicine injections on Sepsis-induced Cardiomyopathy combined with conventional treatment.

Eligibility criteria: Inclusion articles will meet the following requirements: studies that are meta analysis, systematic review or pooled analysis; meta-analyses that integrated the randomized controlled studies which evaluated efficacy or safety of Chinese medicine injections combine with conventional treatment on sepsis-induced cardiomyopathy patients; meta-analyses that had substantial data and were up to date.

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Main outcome(s): The investigated main outcomes will include mortality.

Additional outcome(s): cTnl, BNP, LVEF,PCT,APACHE-II score,side effects.

Data management: The study specific risk estimates will also be included, covering risk ratio, odds ratio, weighted mean difference, standard mean difference together with their 95% CI and number of incident events and total events in each study. We would synthesize all the available data to get a more comprehensive and objective result.

Quality assessment / Risk of bias analysis: Cochrane risk-of bias tool was used to assess quality of the analyzed RCTs.

Strategy of data synthesis: We synthesized all direct and indirect evidence to compare different treatments in terms of efficacy and safety, reported as odds ratios for binary outcomes along with the corresponding 95% confidence intervals (CIs). Using Stata (version 15.0), we generated network diagrams for different outcomes to illustrate geometries, to clarify which treatments were directly or indirectly compared in the included studies.

Subgroup analysis: In our analysis, when possible, we will stratify the comparisons into several groups according to the efficacy of injections (such as tonifying group or heat-clearing and detoxifying group).

Sensitivity analysis: None planned.

Language restriction: English.

Country(ies) involved: China.

Keywords: Chinese medicine injection; Sepsis-induced Cardiomyopathy; network Meta-analysis

Contributions of each author:

Author 1 - Lixin Liang - Author 1 drafted the manuscript.

Author 2 - Mengke Lin.

Author 3 - Yupei Tan.

Author 4 - Hongxu Liu.