INPLASY PROTOCOL

To cite: Sun et al. The therapeutic effects of Chinese medicine on the novel coronavirus pneumonia (COVID-19): A systematic review and meta-analysis. Inplasy protocol 2021110109. doi: 10.37766/inplasy2021.11.0109

Received: 30 November 2021

Published: 30 November 2021

Corresponding author:
Jianfeng Sun

sunjianfeng731@163.com

Author Affiliation:
Hospital of Chengdu University of Traditional Chinese Medicine.

Support: **2020JDRC0115.**

Review Stage at time of this submission: **Data analysis - Completed but not published.**

Conflicts of interest:
None declared.

The therapeutic effects of Chinese medicine on the novel coronavirus pneumonia (COVID-19): A systematic review and meta-analysis

Sun, J[1]; Wu, Z[2]; Wang, Y[3]; Zhang, D[4]; Li, H[5]; Gao, L[6]; Liu, Y[7]; He, C[8].

Review question / Objective: **The traditional Chinese medicine prescriptions and herbal medicines were summarized during the period of new coronary pneumonia. The improvement effects of traditional Chinese medicine on the main clinical symptoms (CT improvement, cough, fever, sputum, etc.) were monitored, providing evidence for the subsequent prevention and treatment of new coronaviruses and mutant viruses.**
Condition being studied: **The therapeutic effects of Chinese medicine on the novel coronavirus pneumonia (COVID-19). Search for clinical research articles related to traditional Chinese medicine and new coronary pneumonia published in Pubmed, Web Of Science, CNKI, WanFang WeiPu and CBM (Chinese Biomedical Database) databases from December 2019 to September 1, 2021.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 November 2021 and was last updated on 30 November 2021 (registration number INPLASY2021110109).

INTRODUCTION

Review question / Objective: **The traditional Chinese medicine prescriptions and herbal medicines were summarized during the period of new coronary pneumonia. The improvement effects of traditional Chinese medicine on the main clinical symptoms (CT improvement, cough, fever, sputum, etc.) were monitored, providing evidence for the subsequent prevention and treatment of new coronaviruses and mutant viruses.**

Condition being studied: **The therapeutic effects of Chinese medicine on the novel**

coronavirus pneumonia (COVID-19). Search for clinical research articles related to traditional Chinese medicine and new coronary pneumonia published in Pubmed, Web Of Science, CNKI, WanFang WeiPu and CBM (Chinese Biomedical Database) databases from December 2019 to September 1, 2021.

METHODS

Search strategy: Search for clinical research articles related to traditional Chinese medicine and new coronary pneumonia published in Pubmed, Web Of Science, CNKI, WanFang WeiPu and CBM (Chinese Biomedical Database) databases from December 2019 to September 1, 2021.

Participant or population: (1) The research is related to the new coronary pneumonia and mutant virus, (2) The research type is a clinical controlled study, including intervention experiments or observational studies, (3) The research intervention measures are various types of oral Chinese medicines (decoctions), Granules, tablets, capsules, granules and oral liquids), (4) The language of publication shall be Chinese or English.

Intervention: The research intervention measures are various types of oral Chinese medicines (decoctions), Granules, tablets, capsules, granules and oral liquids).

Comparator: Routine clinical symptomatic treatment.

Study designs to be included: Fever, cough, expectoration, throat discomfort, nasal congestion, chest tightness, Vomiting, loss of appetite, loose stools, fatigue, muscle and joint pain , dizziness and headache, and imaging indications.

Eligibility criteria: (1) The research is related to the new coronary pneumonia and mutant virus, (2) The research type is a clinical controlled study, including intervention experiments or observational studies, (3) The research intervention measures are various types of oral Chinese medicines (decoctions), Granules, tablets, capsules, granules and oral liquids), (4) The language of publication shall be Chinese orEnglish.

Information sources: We searched six databases Pubmed, Web of Science, CNKI (China National Knowledge Infrastructure), WanFang WeiPu and CBM (Chinese Biomedical Database). The retrieval time is from December 2019 to August 1, 2021. Search terms include Chinese medicine, Chinese medicine, Chinese herbal medicine, Oriental medicine, traditional medicine, complementary treatment, adjuvant treatment, compound prescription, soup, integrative Chinese and western medicine, prescription, RCT, randomized controlled trial, variant variant, delta, COVID-19, 2019 -nCoV, SARS-CoV-2, Coronavirus Disease 2019, Novel Coronavirus, RCT, Randomized Controlled Experiments, Mutations, Variants, Delta, NCP, RCT, Randomized control, Mutations, Variants and Delta.

Main outcome(s): The results show that compared with the control group, the participation of traditional Chinese medicine can significantly speed up the rate of negative accounting for patients, shorten the time of fever, improve the blood indicators of the patients, and improve the CT signs of the patients. On the other hand, infection with COVID-19 and mutant viruses (such as Delta) leads to clinical symptoms that are mainly characterized by fever, cough, excessive sputum, sore throat, fatigue, and muscle joint pain13. The analysis results show that Chinese medicine is significantly better than simple conventional treatment in improving symptoms. A total of 33 prescriptions are included in the article. These 33 prescriptions are a combination of 119 Chinese medicines. Most of these prescriptions are classic prescriptions that have been used since ancient times (such as Maxing Shigan Decoction, Xiao Chaihu Decoction, Huoxiang Zhengqi San Etc.) or Chinese patent medicines already on the market (Jinhua Qinggan Granules, Lianhua Qingwen Preparation Etc.)

Quality assessment / Risk of bias analysis: The quality of the studies will be assessed by using the Cochrane Handbook 5.1.0 (Cochrane Handbook 5.1.0). The assessment will include random sequence generation, randomization correctness, allocation scheme hiding, blinding of patients and implementers, accuracy of data results, and other risk of bias. The risk of low bias is expressed as"low risk"and the risk of high bias is expressed as "high risk." The information provided in the studies is inaccurate or does not provide sufficient information for the bias assessment to be expressed as "unclear risk."The above content evaluation was independently evaluated by 2 researchers, and any differences will be resolved through discussions with the third reviewer.

Strategy of data synthesis: Data synthesis. In line with the Cochrane guideline, a fixed-effect model will be utilized to pool and analyze the outcome data if I2< 50, and a random-effect model will be employed if I2≥ 50. Subgroup analysis or meta-regression will be performed to assess the potential sources and present reasonable explanations for the heterogeneity.

Subgroup analysis: If the necessary data are available, subgroup analyses will be done for people with durations of treatment. For each outcome, we will use a logistic regression model to estimate the treatment effect of each type of Chinese herbal medicine separately if 10 or more patients were excluded.

Sensitivity analysis: Sensitivity analysis will be applied to evaluate the stability of the pooled results of included RCTs according to the methodological quality, sample size and missing data.

Country(ies) involved: China.

Keywords: Traditional Chinese Medicine, COVID-19, Mutant virus, Prescription, Medicationrule.

Contributions of each author:
Author 1 - Jianfeng Sun.
Author 2 - Zhipeng Wu.
Author 3 - Yuelian Wang.
Author 4 - Di Zhang.
Author 5 - Hui Li.
Author 6 - Le Gao.
Author 7 - Yesha Liu.
Author 8 - Chengshi He.