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None declared.

Empirical evidence from Chinese Medicine used for preventing monkeypox and similar contagious diseases: a scoping review

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Review question / Objective: **Whether traditional Chinese medicine could be used for preventing contagious respiratory virus diseases, including monkey pox, smallpox, measles, chickenpox and rubella? Meanwhile, this review aimed at providing the evidence for the global epidemic prevention and control.**

Background: **Monkeypox is an emerging zoonotic infection caused by monkeypox virus (MPXV), which in the past has been primarily detected in West and Central Africa. Since May 2022, 47 countries have reported 3040 monkeypox cases to WHO. Transmission has occurred in many countries that have not previously reported monkeypox cases, and countries in the WHO European region currently report the largest number of cases. As recently recommended by the WHO, monkeypox should be actively monitored and extensively studied worldwide. Traditional Chinese medicine (TCM) has two thousand years of experience for treating infectious pox diseases. WHO also affirmed the contribution of traditional Chinese medicine to the fight against COVID-19. Therefore, we planned to summarized the classical evidence as well as the clinical evidence of TCM for smallpox, measles, chickenpox and rubella, so as to provide evidence for the treatment of monkey pox.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 July 2022 and was last updated on 04 July 2022 (registration number INPLASY202270013).

INTRODUCTION

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Rationale: TCM has the experience for fighting against infectious disease for two thousand years. An increasing number of clinical trials have been conducted or registered to evaluate the effects of TCM for infectious pox diseases. Given that the spread of the monkeypox virus and the outbreak of global infectious diseases, there is a need to summarize the empirical evidence from TCM for preventing monkeypox and the similar contagious diseases.

METHODS

Strategy of data synthesis: We searched the following databases: pubmed, the Cochrane library, Google Scholar, CNKI, VIP, Wanfang. We also searched the register platforms, including the International Clinical Trial Registry Platform (WHO ICTRP) and Chinese Clinical Trial Registry (Chi CTR).
The search terms were as follows:
#1 Monkeypox OR monkey pox OR monkeypox virus OR variole du singe OR variole simienne OR smallpox OR variola OR measles OR measles virus OR varicella OR chickenpox OR varicellovirus OR rubella OR rubeole OR Rubella virus OR german measles [title, abstract, keywords]
#2 traditional Chinese medicine OR Chinese medicine OR traditional medicine OR Chinese herbal medicine OR ethnological medicine OR Chinese materia medica OR Chinese patent medicine [title, abstract, keywords]
#3 trial OR participants OR patients OR randomized controlled trial OR random OR controlled clinical trial OR placebo OR cohort study OR case control study OR epidemiology OR cross sectional study OR descriptional study OR population-based OR clinical observation [title, abstract, keywords].

Eligibility criteria: The included publications should meet the following criteria:
(1) Population diagnosed with or had the risk of getting affected by monkey pox or other similar diseases, including smallpox, measles, chickenpox, rubella. Diseases like herpes zoster or urticaria would be excluded;
(2) For the intervention, traditional Chinese Medicine should be used alone, or combined with conventional treatment or health care;
(3) Compared with conventional treatment, health care, placebo, or blank control;
(4) Outcomes including all-cause mortality, pathogen clearance rate or time, improvement of overall symptoms - including but not limited to fever, frequency and severity of pox;
(5) The included publication types including TCM Classics, clinical controlled trials, cohort studies, cross-sectional studies, case control studies, case series, clinical observation.

Source of evidence screening and selection: Two review authors will independently screen the titles and abstracts of all potential studies we searched for inclusion. After preliminary screening, we will retrieve the full-text study reports and two review authors will independently screen the full text of the studies based on study design and types of participants, interventions and outcome measures. Disagreements will be solved by discussion with the third authors. The

selection process in detail will be recorded in a flow diagram.

Data management: For TCM classics, we will summarize the text related to infectious pox disease with narrative description. For clinical trials, we will design a data extraction form for study characteristics and outcome data, which we will pilot on at least one study in the review. The study characteristics will be extracted by two authors independently, including the characteristics of population, the type of therapies, treatment methods and courses, reported outcomes and adverse events/ reactions. We will also assess the methodological quality by the corresponding tools. For this process, authors will extract or assess in pairs, any disagreement will be solved by a third author to reach a consensus.

Language restriction: There is no language limitation of the included articles, and the search terms applied English and Chinese.

Country(ies) involved: China, UK.

Keywords: monkeypox, smallpox, measles, chickenpox, rubella, scoping review, traditional Chinese medicine.

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