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Systematic review and Meta-analysis of Additional Yupingfeng Powder combined with western medicine for Stable Period of Chronic Obstructive Pulmonary Disease

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2023100099

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 31 October 2023 and was last updated on 31 October 2023.

INTRODUCTION

Review question / Objective To systematically evaluate the effect and safety of additional Yupingfeng powder combined with western medicine for the stable period of chronic obstructive pulmonary disease(COPD).

Condition being studied Chronic obstructive pulmonary disease (COPD) is a clinical syndrome characterized by Chronic respiratory symptoms, abnormal lung tissue structure or impaired lung function. The clinical features of COPD patients are chronic and recurrent cough accompanied by cough and wheezing, and the immune function of the patients is obviously weakened, making them prone to acute infection, and their quality of life will be greatly affected. COPD is one of the three leading causes of death in China, and the third most fatal disease in the world. The 2017 Global Burden of Disease survey showed that the number of years of life loss caused by COPD in all age groups in the global population increased by 13.2% over a 10-year period (2007-2017). So the prevention and treatment of COPD is urgent. Some studies have shown that the adjuvant treatment of Yupingfeng powder has significant efficacy in the stable period of COPD, and the patients have good compliance and high tolerance, but lack of evidence-based medical evidence.

METHODS

Participant or population Patients diagnosed as COPD by lung function test, and the clinical stage was stable. Syndrome differentiation of traditional Chinese medicine was the pulmonary qi deficiency syndrome.

Intervention The treatment group was treated with additional Yupingfeng powder in combination with routine western medicine. Routine treatment in western medicine includes relieving spasm and asthma, eliminating phlegm, relieving cough, and inhaling oxygen.

Comparator The control group was treated with the same routine western medicine. Routine treatment in western medicine includes relieving spasm and asthma, eliminating phlegm, relieving cough, and inhaling oxygen.

Study designs to be included Randomized controlled trials (RCTS) of additional Yupingfeng powder in the treatment of stable COPD published from inception to October 2023 and the language was limited to Chinese and English.

Eligibility criteria Exclusion criteria: ①Repeatedly published literatures. ②Lireratures that are review, animal experiments, case reports and other types. ③Patients clinically diagnosed as AECOPD or with other major diseases. ④The treatment group adopted other traditional Chinese medicine treatment methods such as acupuncture and moxibustion, acupoint application, etc., or the traditional Chinese medicine selected Yupingfeng powder combined with other traditional Chinese medicine prescriptions. ⑤Incomplete extraction of outcome data or having obvious errors in the data.

Information sources The following electronic databases were searched from inception to October 2023: China Network Knowledge Infrastructure (CNKI), WangFang database (WF), Chinese Scientific Journals Database (VIP), China Biology Medicine disc (CBMdisc), Web of Science, Pubmed, Cochrane Library.

Main outcome(s) Types of outcomes include lung function[FEV1 (%), FEV1, FEV1/FVC (%)], six-minute walking test (6MWT), serum immunoglobulin A(IgA) content, total clinical response rate, TCM syndrome score, incidence of adverse reactions.

Quality assessment / Risk of bias analysis Two researchers independently evaluated the quality of the literature. In case of disagreement, the third researcher was consulted. The methodological quality of the eligible studies will be evaluated according to the Cochrane Collaboration's tool for assessing the risk of bias, which considers random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessors, incomplete outcome data, selective reporting and other sources of bias. Each domain will be assessed as "L", "H" or "U" according to the description details of eligible studies, with "L" indicating a low risk of bias, "H" a high risk of bias and "U" an uncertain risk of bias.

Strategy of data synthesis The RevMan5.2 software provided by the Cochrane collaboration was used for statistical analysis of the data, and funnel plots, quality assessment plots and forest plots were made. Data will be summarized using risk ratios (RR) with 95% confidence intervals (CI) for binary outcomes or mean difference (MD) with 95% CI for continuous outcomes. For outcome variables on different measurement scales, we will use standardized mean difference (SMD) with 95%CI analyses. I2 test was used for heterogeneity analysis among studies. If there was no heterogeneity (P>0.1, I2 <50%), fixed effects model was used. If there is heterogeneity (P50%), the random effects model is adopted. If the heterogeneity between studies is too large, descriptive analysis or sensitivity analysis can be used. If the total included literatures are more than ten, funnel plot can be used to analyze whether there is publication bias.

Subgroup analysis Considering different treatment courses of Yupingfeng may be substantial sources of clinical heterogeneity, we will conduct subgroup analysis by treatment courses of Yupingfeng with sufficient studies (≥10) and data.

Sensitivity analysis If test of heterogeneity is statistically significant (P < 0.1), sensitivity analysis will be performed to assess robustness of overall summary results by leave-one-out meta-analysis, and summary findings will be compared between FEM and REM analysis.

Language restriction The language was limited to Chinese and English.

Country(ies) involved China.

Keywords Chronic obstructive pulmonary disease stabilized; Additional Yupingfeng Powder; Randomized controlled trials; systematic review; Meta-analysis.

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