INPLASY

Network Meta analysis of Extracorporeal Exercise Therapy on pulmonary rehabilitation in stable chronic obstructive pulmonary disease

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ADMINISTRATIVE INFORMATION

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 September 2024 and was last updated on 11 September 2024.

INTRODUCTION

*R*eview question / Objective The purpose of this study was to systematically evaluate the effects of different out-of-hospital exercise rehabilitation therapy on pulmonary rehabilitation in stable COPD patients. The selected research method was RCT.

Condition being studied The patients met the GOLD guidelines for stable COPD diagnosis and were 40-80 years old.

METHODS

Participant or population Stable COPD patients.

Intervention Out-of-hospital sports rehabilitation.

Comparator Simple Western medicine treatment and/or simple breathing exercises.

Study designs to be included RCT.

Eligibility criteria GOLD guideline for stable COPD diagnosis.

(1) the chief complaint of dyspnea, chronic cough or sputum, a history of recurrent lower respiratory tract infection and/or a history of exposure to risk factors;
(2) The maximum forced expiratory volume in firstsecond (FEV1)/ forced vital capacity (FVC)<0.7 after bronchodilator application, indicating persistent airflow obstruction;
(3) Exclude other diagnoses.

Information sources Pubmed, The Cochrane Library, web of science, CNKI, Wanfang and VIP.

Main outcome(s) Forced Expiratory Volume in One Second in percent predicted values,ForcedExpired Volume in One Second to Forced Vital Capacity,6 Minutes Walking Test.

Quality assessment / Risk of bias analysis RCT Bias risk assessment tool in the Cochrane Handbook.

Strategy of data synthesis Stata software was used for data analysis and heterogeneity test. P 50% indicated heterogeneity among studies, and random effects model was adopted. Otherwise, it shows that the homogeneity between the studies is good, and the fixed effect model is adopted.

Subgroup analysis Subgroup analysis was performed for intervention duration less than or equal to six months and for intervention duration greater than six months.

Sensitivity analysis Stata software carries out sensitivity analysis to reflect the sensitivity of an article through the change of the effect size after the deletion of a certain article.

Country(ies) involved China.

Keywords Extracorporeal exercise rehabilitation；Pulmonary Disease, Chronic Obstructive；Network meta-analysis；Randomized controlled trial.

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