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The Efficacy and Safety of hot medicinal compress therapy in The Treatment of knee osteoarthritis : A Systematic Review and Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

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 02 March 2024 and was last updated on 02 March 2024.

INTRODUCTION

Review question / Objective The aim of this meta analysis is to investigate the clinical effect of hot medicinal compress therapy on patients with knee Osteoarthritis.

Condition being studied Knee osteoarthritis is one of the most common chronic progressive diseases with degenerative destruction of articular cartilage and bone among older adults. Knee osteoarthritis leads to pain and reduces functional performance. The current Conservative treatments include drug therapy and physical therapy. Drug therapy takes effect quickly, but patients may build up a tolerance and dependence to it after long-term use. Hot Medicinal Compress Therapy is one of the physical therapy methods. Hot Medicinal Compress has a long history in China, which can promote synovial fluid flow, reduce knee joint

inflammation, and is a safe and effective treatment method.

METHODS

Participant or population Participants who were definitely diagnosed with knee osteoarthritis would be included, and there will be no limitation on sex, ages, and other factors.

Intervention The Intervention groups adopt the hot medicinal compress therapy.

Comparator The control groups were treated with analgesics.

Study designs to be included Randomized controlled trial.

Eligibility criteria Patients meeting the following criteria will be included: meeting the 1995 American Society of Rheumatology (ACR) diagnostic criteria for knee Osteoarthritis, with or without osteoarthritis in other parts.

Information sources The following online databases will be comprehensively searched including: The Cochrane Library, PubMed, EMBASE, Chinese Biomedical Literature Database, Chinese National Knowledge Infrastructure Database, Chinese Science and Technique Journals Database (VIP), and the Wanfang Database. All the literature retrieved is from the inception of the database to 28 February 2024. There are no language restrictions or regional restrictions. The subject words mainly include : hot medicinal compress therapy 、 hot package method 、 hot ironing therapy 、 wax therapy、 Knee Osteoarthritis.

Main outcome(s) Clinical efficiency, Pain score, TCM syndrome score.

Data management Two researchers respectively imported the retrieved literature into Endnote X9.0 software for management and screening. For the controversial literature, they the decision or leave it to the third researcher to decide.

Quality assessment / Risk of bias analysis The quality of the literature was evaluated using the Cochrane bias risk tool V.2.0. The two researchers independently evaluated the literature and cross-checked it, and the questionable part of the discussion was resolved or left to the third researcher to decide.

Strategy of data synthesis Meta-analysis was performed using Stata17.0 software. The odds ratio (OR) was used as the effect analysis statistic for the count data, and the mean difference (MD) or standardized mean difference (SMD) was used as the effect analysis statistic for the measurement data. The 95 % confidence interval (CI) was calculated for all effect quantities. The heterogeneity between the results of the included studies was analyzed by χ^2 test (test level $\alpha = 0.1$), and the heterogeneity was quantitatively judged by I^2 . When $P \geq 0.10$ and $I^2 \leq 50\%$, the heterogeneity between studies was small, so the fixed effect model was used for analysis. When $P < 0.10$ and $I^2 > 50\%$, it suggested that the heterogeneity between studies was large, so the random effect model was used for analysis.

Subgroup analysis If there is significant heterogeneity between studies, subgroup analysis will be performed on patients of different ages and genders.

Sensitivity analysis Furthermore, if necessary, a sensitivity analysis will be performed.

Country(ies) involved China.

Keywords hot medicinal compress therapy;Knee Osteoarthritis.

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