

INPLASY PROTOCOL

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None declared.

Exercise Therapy in patellar tendinopathy: a systematic review and network meta- analysis protocol

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Review question / Objective: Among all kinds of exercise therapy (including traditional Chinese exercise therapy, such as Tai Chi, Baduanjin, five animal exercises, etc.)for patellar tendinopathy, which exercise therapy works best?

Condition being studied: Patellar tendinopathy (PT)is a common musculoskeletal disease with an increasing incidence, especially among sports enthusiasts who run and jump a lot.Its clinical symptoms are mostly anterior knee pain and impaired patellar tendon function.

Information sources: Cochrane Library, MEDLINE, Web of Science, Scopus, Embase, Chinese National Knowledge Infrastructure (CNKI), Wanfang Database, the Chongqing VIP Chinese Science and Technology Periodical Database, Chinese Biomedical Literature Database (CBM).

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 February 2023 and was last updated on 25 February 2023 (registration number INPLASY202320112).

INTRODUCTION

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METHODS

Search strategy: We will search from these databases: Cochrane Library, MEDLINE, Web of Science, Scopus, Embase, Chinese National Knowledge Infrastructure (CNKI), Wanfang Database, the Chongqing VIP Chinese Science and Technology Periodical Database, Chinese Biomedical Literature Database (CBM).

Participant or population: We will include patients over 18 years of age and diagnosed as PT. studies excluding other diseases (e.g., patellar dislocation, patellofemoral pain, patellar femoral joint disease, iliotibial band syndrome).

Intervention: The intervention included any form of exercise therapy (including traditional Chinese exercise therapy).

Comparator: The control group received non-exercise-related therapy such as acupuncture, electrotherapy, Ultrasonic wave.

Study designs to be included: Randomized Controlled Trials will be included.

Eligibility criteria: Patellar tendinopathy (PT) are generally divided into four stages, I: Pain only after sports. II: Pain at the beginning of sports, disappearing after a warm-up, but reappearing during fatigue. III: Constant pain at rest and with activity. IV: Complete rupture of the patellar tendon. We will include stage I to III, because stage IV usually requires surgery.

Information sources: Cochrane Library, MEDLINE, Web of Science, Scopus, Embase, Chinese National Knowledge Infrastructure (CNKI), Wanfang Database, the Chongqing VIP Chinese Science and Technology Periodical Database, Chinese Biomedical Literature Database (CBM).

Main outcome(s): Pain and function are going to be our main outcomes, a reliable and stable scale will be used to assess pain rating and function. The change of pain intensity will be measured by a visual analogue scale (VAS). The function of the knee joint will also be evaluated with effective tools.

Quality assessment / Risk of bias analysis: The quality of the included studies will be assessed according to the Cochrane Reviewers' Handbook. We will appraise each study in terms of selection bias (random sequence generation and allocation concealment), performance bias (blinding of participants and personnel), detection bias (blinding of outcome assessment), attrition bias (incomplete outcome data), selective reporting bias and other bias. Trials will be evaluated and classified into three levels: low risk, high risk and unclear. When there is a disagreement, we work it out together, and if necessary, we consult a third reviewer.

Strategy of data synthesis: Randomized controlled trials will be assessed using the Cochrane Handbook's Risk of Bias (ROB) assessment tool.

Subgroup analysis: If necessary, we will conduct subgroup analyses based on stage of patellar tendinopathy and degree of pain.

Sensitivity analysis: In order to obtain accurate and stable results, we will conduct sensitivity analysis and we will exclude studies deemed to have a high risk of bias, the remaining studies will be re-analyzed.

Language restriction: English, Chinese.

Country(ies) involved: All the authors are from China. Affiliations: Chengdu University of Traditional Chinese Medicine, Affiliated Hospital of Chengdu University of Traditional Chinese Medicine.

Keywords: Exercise Therapy; patellar tendinopathy; Patellar Ligament; Tendinopathy.

Contributions of each author:

Author 1 - li lu - Conceived this study.

Author 2 - song jin.

Author 3 - di zhang.

Author 4 - hong guo.

Author 5 - ying wang.