

A COMPARATIVE REVIEW OF THE EFFECTS OF CORTICOSTEROID INJECTIONS AND RESISTANCE EXERCISE ON WOMAC SCORES OF PATIENTS WITH KNEE OSTEOARTHRITIS

Abstract

Introduction: Knee osteoarthritis is a degenerative and progressive, non-inflammatory joint disease characterized by articular cartilage degradation and subchondral bone changes. The most common conservative treatments for knee osteoarthritis are intra articular corticosteroid injections and physical therapy. The aim of this study is to critically evaluate and review the current literature on the effects of corticosteroids and resistance exercise on pain, stiffness, and function in patients diagnosed with knee osteoarthritis.

Methods: Authors performed a systematic review of randomized controlled trials (RCTs) in PubMed and EBSCOhost published between January 2012 and October 2022. The authors used keywords to identify the studies that looked at corticosteroids and resistance exercise in patients above 40 years old diagnosed with osteoarthritis. After screening abstracts for inclusion and exclusion criteria, reviewers created a standardized process of reviewing articles using the Physiotherapy Evidence Database (PEDro) and Critical Appraisal Skills Programme (CASP). Two reviewers independently evaluated each article's full text to determine validity and strength of each RCT. The primary outcome measure used to determine the effectiveness of exercise and corticosteroids is the Western Ontario McMaster University Osteoarthritis Index (WOMAC).

Results: Of the 69,056 articles initially identified during the preliminary search, only 8 were used in the study. 3 were studies reporting on the effects of resistance exercise while 5 were reporting on the effects of corticosteroids. Of the 3 resistance studies, 2 had significant changes in WOMAC scores. Of the 5 studies on corticosteroid injections, 4 had significant changes.

Conclusion: Evidence from this review suggests that there is a significant improvement in WOMAC scores for patients with knee OA when using resistance exercise or corticosteroid injections.

Keywords: Corticosteroids, Physical Therapy, Resistance, Osteoarthritis

Conflict of Interest Statement: The authors report no conflict of interest

Funding Source: None