

PHARMACOTHERAPY FOR PATELLOFEMORAL PAIN SYNDROME

Heintjes Edith M, Berger Marjolein, Bierma-Zeinstra Sita MA, Bernsen Roos MD, Verhaar Jan AN, Koes Bart W

Heintjes Edith M, Berger Marjolein, Bierma-Zeinstra Sita MA, Bernsen Roos MD, Verhaar Jan AN, Koes Bart W

Cochrane Database of Systematic Reviews, Issue 08, 2011 (Status in this issue: EDITED (NO CHANGE TO CONCLUSIONS))

Copyright © 2009 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

DOI: 10.1002/14651858.CD003470.pub3

This review should be cited as: Heintjes Edith M, Berger Marjolein, Bierma-Zeinstra Sita MA, Bernsen Roos MD, Verhaar Jan AN, Koes Bart W.

Pharmacotherapy for patellofemoral pain syndrome. Cochrane Database of Systematic Reviews. In: *The Cochrane Library*, Issue 08, Art. No. CD003470. DOI: 10.1002/14651858.CD003470.pub3

ABSTRACT

Background

Patellofemoral pain syndrome (PFPS) is common among adolescents and young adults. It is characterised by pain behind or around the patella and crepitations, provoked by ascending or descending stairs, squatting, prolonged sitting with flexed knees, running and cycling. The symptoms impede function in daily activities or sports. Pharmacological treatments focus on reducing pain symptoms (non-steroidal anti-inflammatory drugs (NSAIDs), glucocorticosteroids), or restoring the assumed underlying pathology (compounds containing glucosamine to stimulate cartilage metabolism, anabolic steroids to increase bone density of the patella and build up supporting muscles). In studies, drugs are usually applied in addition to exercises aimed at building up supporting musculature.

Objective

This review aims to summarise the evidence of effectiveness of pharmacotherapy in reducing anterior knee pain and improving knee function in people with PFPS.

Criteria for considering studies for this review

We searched the Cochrane Bone, Joint and Muscle Trauma Group and Cochrane Rehabilitation and Related Therapies Field trials registers, the Cochrane Central Register of Controlled Trials (The Cochrane Library Issue 4, 2003), PEDro (up to January 2004), MEDLINE (1966 to January 2004), EMBASE (1988 to January 2004), and CINAHL (1982 to January 2004).

Selection criteria

Controlled trials (randomised or not) comparing pharmacotherapy with placebo, different types of pharmacotherapy, or pharmacotherapy to other therapies for people with PFPS.

Data collection and analysis

The literature search yielded 780 publications. Eight trials were included, of which three were of high quality. Data were analysed qualitatively using best evidence synthesis, because meta-analysis was impeded by differences in route of administration of drugs, care programs and outcome measures.

Main results

Four trials (163 participants) studied the effect of NSAIDs. Aspirin compared to placebo in a high quality trial produced no significant differences in clinical symptoms and signs. Naproxen produced significant short term pain reduction when compared to placebo, but not when compared to diflunisal. Laser therapy to stimulate blood flow in tender areas led to more satisfied participants than tenoxicam, though not significantly.

Authors' conclusions

There is only limited evidence for the effectiveness of NSAIDs for short term pain reduction in PFPS. The evidence for the effect of glycosaminoglycan polysulphate is conflicting and merits further investigation. The anabolic steroid nandrolone may be effective, but is too controversial for treatment of PFPS.
