Winter 2019

ORTHOPAEDIC EVIDENCE

NEWSLETTER

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Three of the Top 10 Most Searched Articles in 2018
From the Ortho Evidence Website

Operative versus nonoperative treatment for full-thickness rotator cuff tears	**Comparison of neuromuscular exercise therapy and pharmacological intervention for knee OA**	**Glucosamine and chondroitin combined therapy and monotherapy vs celecoxib and placebo for knee OA**

OPERATIVE VERSUS NONOPERATIVE TREATMENT FOR FULL-THICKNESS ROTATOR CUFF TEARS

J Shoulder Elbow Surg. 2018 Mar;27(3):572-576

Three randomized controlled trials were included in this meta-analysis comparing pain and functional improvement between operative and nonoperative treatment for full-thickness rotator cuff tears. Follow-up was 12 months in each study.

The study concluded that in the management of full-thickness rotator cuff tears, operative treatment was associated with statistically significantly greater improvements in pain and function when compared to nonoperative treatment, though the differences failed to meet the minimal clinically important difference (MCID) threshold.

The results suggest that surgical treatment of full-thickness rotator cuff tear provides minor improvement in pain and function compared to non-operative management.

Clinical Note: If a patient has a full-thickness rotator cuff tear demonstrated on an ultrasound or X-ray but no significant complaints of pain or lack of function, a surgical referral may not be warranted.

Produced by the Clinical Staff at

WSP west side physiotherapy

Eastview PHYSIOTHERAPY

COMPARISON OF NEUROMUSCULAR EXERCISE THERAPY AND PHARMACOLOGICAL INTERVENTION FOR KNEE OA

Osteoarthritis Cartilage. 2018 Jan;26(1):28-33

93 patients with mild-to-moderate knee osteoarthritis were randomized to either an 8-week neuromuscular exercise (NEMEX) program or treatment with analgesic and anti-inflammatory drugs (PHARMA). Patients were assessed after 2 and 12 months for results on the Knee Injury and Osteoarthritis Index Score (KOOS).
The KOOS ADL score was significantly better in the NEMEX and PHARMA groups with no significant difference between groups at 2 and 12 months.

The rate of patients who demonstrated a clinically relevant improvement (10pts or more) in KOOS ADL score was 47% (22/47) in the NEMEX group and 28% (13/46) in the PHARMA group.

Using the KOOS Symptom Scale, change from baseline to 12 months was significantly greater in the NEMEX group compared to the PHARMA group.

The results of this study suggest that there could potentially be a minor clinical benefit of a neuromuscular exercise program over analgesic and anti-inflammatory drug use in the treatment of knee osteoarthritis. Compliance with the exercise program was also noted to be important to the outcome.

- **Our Clinicians routinely provide a home exercise program as part of our management of knee OA.**

GLUCOSAMINE AND CHONDROITIN COMBINED THERAPY AND MONOTHERAPY VS CELECOXIB AND PLACEBO FOR KNEE OA

N Engl J Med. 2006 Feb 23;354(8):795-808

1583 patients with symptomatic knee osteoarthritis were randomized to either glucosamine monotherapy, chondroitin monotherapy, combined glucosamine and chondroitin therapy, celecoxib 200mg daily, or placebo. Patients were assessed over 24 weeks of treatment.

The primary outcome measure was the rate of a minimum 20% decrease in Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) pain score from baseline.

In patients with knee osteoarthritis, only celecoxib 200mg/day demonstrated a significant effect over placebo in the primary efficacy measure (minimum 20% decrease in WOMAC pain). However, subgroup analysis in patients with moderate-to-severe pain at baseline, combination therapy of glucosamine and chondroitin demonstrated clinical efficacy versus placebo in the primary efficacy variable and secondary efficacy variables. Neither glucosamine monotherapy or chondroitin monotherapy demonstrated clinical efficacy over placebo.

The results of this study suggest that efficacy of combined glucosamine and chondroitin therapy may be limited to patients with moderate to severe symptomatic knee osteoarthritis pain, while monotherapy of either supplement was not effective in either overall or subgroup analyses.