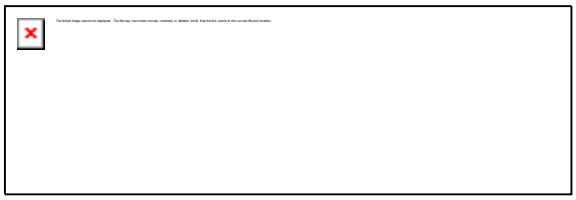

1: Arthritis Rheum. 2008 Oct;58(10):3183-91./entrez/utils/fref.fcgi?PrId=3058&itool=AbstractPlus-def&uid=18821708&db=pubmed&url=http://dx.doi.org/10.1002/art.23973 /entrez/utils/fref.fcgi?PrId=3058&itool=AbstractPlus-def&uid=18821708&db=pubmed&url=http://dx.doi.org/10.1002/art.23973 Links

The effect of glucosamine and/or chondroitin sulfate on the progression of knee osteoarthritis: a report from the glucosamine/chondroitin arthritis intervention trial.

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OBJECTIVE: Osteoarthritis (OA) of the knee causes significant morbidity and current medical treatment is limited to symptom relief, while therapies able to slow structural damage remain elusive. This study was undertaken to evaluate the effect of glucosamine and chondroitin sulfate (CS), alone or in combination, as well as celecoxib and placebo on progressive loss of joint space width (JSW) in patients with knee OA. METHODS: A 24-month, double-blind, placebo-controlled study, conducted at 9 sites in the United States as part of the Glucosamine/Chondroitin Arthritis Intervention Trial (GAIT), enrolled 572 patients with knee OA who satisfied radiographic criteria (Kellgren/Lawrence [K/L] grade 2 or grade 3 changes and JSW of at least 2 mm at baseline). Patients with primarily lateral compartment narrowing at any time point were excluded. Patients who had been randomized to 1 of the 5 groups in the GAIT continued to receive glucosamine 500 mg 3 times daily, CS 400 mg 3 times daily, the combination of glucosamine and CS, celecoxib 200 mg daily, or placebo over 24 months. The minimum medial tibiofemoral JSW was measured at baseline, 12 months, and 24 months. The primary outcome measure was the mean change in JSW from baseline. RESULTS: The mean JSW loss at 2 years in knees with OA in the placebo group, adjusted for design and clinical factors, was 0.166 mm. No statistically significant difference in mean JSW loss was observed in any treatment group compared with the placebo group. Treatment effects on K/L grade 2 knees, but not on K/L grade 3 knees, showed a trend toward improvement relative to the placebo group. The power of the study was diminished by the limited sample size, variance of JSW measurement, and a smaller than expected loss in JSW. CONCLUSION: At 2 years, no treatment achieved a predefined threshold of clinically important difference in JSW loss as compared with placebo. However, knees with K/L grade 2 radiographic OA appeared to have the greatest potential for modification by these treatments.

Cochrane Database Syst Rev. 2001;(1):CD002946.

Glucosamine therapy for treating osteoarthritis.

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BACKGROUND: Osteoarthritis (OA) is the most common form of arthritis, and it is often associated with significant disability and an impaired quality of life. OBJECTIVES: To review all randomized controlled trials (RCTs) evaluating the effectiveness and toxicity of glucosamine in OA. SEARCH STRATEGY: We searched MEDLINE, PREMEDLINE, EMBASE, AMED, ACP Journal Club, DARE, CDSR, and the CCTR. We also wrote letters to content experts, and hand searched reference lists of identified RCTs and pertinent review articles. All searches were updated in January 2005. SELECTION CRITERIA: Relevant studies met the following criteria: 1) RCTs evaluating the effectiveness and safety of glucosamine in OA, 2) Both placebo controlled and comparative studies were eligible, 3) Both single blinded and double blinded studies were eligible. DATA COLLECTION AND ANALYSIS: Data abstraction was performed independently by two investigators and the results were compared for degree of agreement. Gotzsche's method and a validated tool (Jadad 1996) were used to score the quality of the RCTs. Continuous outcome measures were pooled using standardized mean differences (SMD) as the measure of effect size. Dichotomous outcome measures were pooled using relative risk ratios (RR). MAIN RESULTS: Analysis restricted to eight studies with adequate allocation concealment failed to show benefit of glucosamine for pain and WOMAC function. Collectively, the 20 analyzed RCTs found glucosamine favoured placebo with a 28% (change from baseline) improvement in pain (SMD -0.61, 95% CI -0.95, -0.28) and a 21% (change from baseline) improvement in function using the Lequesne index (SMD -0.51 95% CI -0.96, -0.05). However, the results are not uniformly positive, and the reasons for this remain unexplained. WOMAC pain, function and stiffness outcomes did not reach statistical significance.In the 10 RCTs in which the Rotta preparation of glucosamine was compared to placebo, glucosamine was found to be superior for pain (SMD -1.31, 95% CI -1.99, -0.64) and function using the Lequesne index (SMD -0.51, 95% CI -0.96, -0.05). Pooled results for pain (SMD -0.15, 95% CI -0.35, 0.05) and function using the WOMAC index (SMD 0.03, 95% CI -0.18, 0.25) in those RCTs in which a non-Rotta preparation of glucosamine was compared to placebo did not reach statistical significance. In the four RCTs in which the Rotta preparation of glucosamine was compared to an NSAID, glucosamine was superior in two, and equivalent in two. Two RCTs using the Rotta preparation showed that glucosamine was able to slow radiological progression of OA of the knee over a three year period (SMD 0.24, 95% CI 0.04, 0.43).Glucosamine was as safe as placebo in terms of the number of subjects reporting adverse reactions (RR=0.97, 95% CI, 0.88, 1.08). AUTHORS' CONCLUSIONS: This update includes 20 studies with 2570 patients. Pooled results from studies using a non-Rotta preparation or adequate allocation concealment failed to show benefit in pain and WOMAC function while those studies evaluating the Rotta preparation show that glucosamine was superior to placebo in the treatment of pain and functional impairment resulting from symptomatic OA. WOMAC outcomes of pain, stiffness and function did not show a superiority of glucosamine over placebo for both Rotta and non-Rotta preparations of glucosamine. Glucosamine was as safe as placebo.

Le WOMAC est l'index validé dans l'évaluation d'une arthrose des membres inférieurs. Il existe 2 systèmes de cotation des réponses aux questions : soit l'échelle de Lickert avec 5 réponses possibles (nulle = 0 ; minime = 1 ; modérée = 2 ; sévère = 3 ; extrême = 4), soit une échelle visuelle analogique de 100 mm. Il est possible de calculer les scores dans chaque domaine ou pour l'ensemble du WOMAC

WOMAC Domaine douleur : quelle est l'importance de la douleur ?

1. Lorsque vous marchez sur une surface plane ?
2. Lorsque vous montez ou descendez les escaliers ?
3. La nuit, lorsque vous êtes au lit ?
4. Lorsque vous vous levez d’une chaise ou vous asseyez ?
5. Lorsque vous vous tenez debout ?

WOMAC Domaine raideur

1. Quelle est l'importance de la raideur de votre articulation lorsque vous vous levez le matin ?
2. Quelle est l'importance de la raideur de votre articulation lorsque vous bougez après vous être assis, couché ou reposé durant la journée ?

WOMAC Domaine fonction : quelle est l'importance de la difficulté que vous éprouvez à :

1. Descendre les escaliers ?
2. Monter les escaliers ?
3. Vous relever de la position assise ?
4. Vous tenir debout ?
5. Vous pencher en avant ?
6. Marcher en terrain plat ?
7. Entrer et sortir d'une voiture ?
8. Faire vos courses ?
9. Enfiler collants ou chaussettes ?
10. Sortir du lit ?
11. Enlever vos collants ou vos chaussettes ?
12. Vous étendre sur le lit ?
13. Entrer ou sortir d'une baignoire ?
14. Vous asseoir ?
15. Vous asseoir et vous relever des toilettes ?
16. Faire le ménage " à fond " de votre domicile ?
17. Faire l'entretien quotidien de votre domicile ?

Référence : Bellamy N, Buchanan WW, Goldsmith CH, Campbell J, Stit LWJ. Validation of WOMAC: a health status instrument for measuring clinically important patient relevant outcomes to antirheumatic drug therapy in patients with osteoarthritis of the hip or knee. J Rheumatol 1995; 15: 1833-40