CLINICAL TRIALS

Glucosamine–chondroitin combo improves knee OA pain

The efficacy of combined chondroitin sulphate plus glucosamine for knee osteoarthritis (OA) is debated, but the suggestion, from analysis of past clinical trials, that a subgroup of patients with moderate to severe pain might benefit from this therapy has now been further explored in the phase IV MOVES (Multicentre Osteoarthritis interVEntion trial with Sysadoa) trial. The results of this latest study indicate that the combination of chondroitin plus glucosamine has efficacy comparable to that of the cyclooxygenase-2 inhibitor celecoxib in relieving symptoms in patients with OA of the knee with severe pain.

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MOVES included 606 patients at sites in France, Germany, Poland and Spain who had radiographically evident knee OA (Kellgren–Lawrence grade 2 or 3) and severe pain (WOMAC pain score ≥ 301 on a 0–500 scale). Owing to the use of celecoxib as one of the study drugs, individuals at high risk of cardiovascular or gastrointestinal events were excluded from the trial.

Patients were randomly assigned to treatment with a prescription formulation of 400 mg chondroitin sulphate plus 500 mg glucosamine hydrochloride (Droglican®, produced by Bioiberica SA, Barcelona, who sponsored the MOVES trial) three times a day or with 200 mg celecoxib (Celebrex®, Pfizer, New York) once a day plus placebo.

Although the celecoxib group had a faster and more substantial response in the first 4 months of the study, by the 6-month endpoint, responses were similar across both groups. The mean change in WOMAC pain score at 6 months was -185.7 (50.1% decrease from baseline) in the chondroitin plus glucosamine group and -186.8 (50.2% decrease from baseline) in the celecoxib group; the mean difference between the groups was -1.1 (95% CI -22.0 to 19.8 ; $P=0.92$).

There were no significant differences between the groups in the secondary

outcome measures of WOMAC stiffness score (46.9% decrease in the combination group vs 49.2% in the celecoxib group; $P=0.43$) or WOMAC function score (45.5% vs 46.4% decrease; $P=0.53$). Joint swelling and effusion were similarly decreased in both groups.

Rates of adverse events were similar across the groups, and both treatments had good safety profiles and tolerability. Of note, the safety and efficacy of the prescription drug used in this study cannot be generalized to unregulated, commercially available dietary supplements, nor to the individual components of the chondroitin–glucosamine combination.

The authors conclude that the combination therapy used in the study “appears to be beneficial in the treatment of patients with [OA] of the knee and should offer a safe and effective alternative for those patients with cardiovascular or gastrointestinal conditions”.

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Original article Hochberg, M. C. *et al.* Combined chondroitin sulfate and glucosamine for painful knee osteoarthritis: a multicentre, randomised, double-blind, non-inferiority trial versus celecoxib. *Ann. Rheum. Dis.* doi:10.1136/annrheumdis-2014-206792