Can a "Supplement" Also Be a Medication? Yes -- If It Works

By ACSH Staff — February 23, 2006

As our thousands of devoted readers know, ACSH is not a big fan of so-called dietary/nutritional supplements. I believe that therapy should be based on scientific evidence. Remedies based on belief, supposition, and "common sense" belong in the realm of quackery or faith-healing. "Alternative medicine" is an oxymoron: it's either medicine, or it's not.

That said, my evaluation of the newly released study of glucosamine-chondroitin (GC) for osteoarthritis (OA) of the knee is not concordant with most of the recent headlines, which claim that there was no benefit of the combination GC approach for OA pain. Such a summary is not the whole story.

The multi-center, NIH-sponsored study in question appeared in today's New England Journal of Medicine. The researchers' analysis of the total group -- almost 1,600 patients -- did not show a significant decrease (of at least 20%, as defined by the study authors) in knee pain. However, among the subset of study patients with "moderate or severe pain" there was some cause for hope. The 354 individuals with the most severe pain who were randomly assigned to the GC combination treatment experienced a significantly greater response than did the placebo group. Also of note, those with swelling or fluid in the knee (effusion) who took chondroitin alone -- but, surprisingly, not those who took both supplements together -- had significantly less swelling after the six-month treatment.

Also of interest, the researchers used Pfizer's COX-2 drug, Celebrex, as an internal control. Those randomized to this FDA-approved drug were anticipated to have a positive response, and they did indeed note a significant decline in their symptoms.

Some prior studies have shown a degree of efficacy in reducing both symptoms of OA and knee cartilage destruction in patients on either glucosamine or chondroitin, although other published studies have not confirmed this. Since none of the other treatments we have for OA actually retard the primary causes of pain, stiffness, swelling, and limited motion (the destruction, irregularity, and loss of cartilage in the joint), if one or both of these supplements was actually shown to slow down the progress of cartilage loss, that would be of huge benefit.
Over 20 million Americans have OA to some extent, of whom over 5 million are taking one or both of the GC substances. These supplements are not FDA-approved pharmaceuticals and are therefore not regulated for safety or quality. They are widely available, but buyer beware -- there is really no way to make sure that what you think you have purchased is what is actually in the bottle. Unlike prescription drugs, whose ingredients and bioavailability are strictly controlled, the variable quality of such supplements is a notorious problem.

Finally, the decision as to whether to try these supplements, either alone or in combination, is a decision each arthritis patient should make in consultation with his or her doctor. Since the side effect profile of the GC combination is not a significant concern, either historically or based on the evidence from the new study, there is little harm to be feared from a few-month trial in those with symptomatic OA, especially of the knee. Indeed, the current study, contrary to the pessimistic headlines, actually does give some hope for response in those with more severe disease.

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See also: ACSH's report Osteoarthritis and Its Treatment: What You Need to Know [3].

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