Tidal Irrigation Outlasts Steroids in One OA Study

BY PATRIECE WENDLING
Chicago Bureau

CHICAGO — Tidal irrigation leads to significant differences between treatment groups in a subset of patients, according to results from a randomized, single-blinded, parallel group trial involving patients with symptomatic knee OA. But the benefits were maintained only in the irrigation group at 26 weeks.

Tidal irrigation, which involves infusing saline into the knee under local anesthesia to repeatedly distend the capsule, is thought to provide benefit by disrupting intraarticular adhesions and by cleansing away debris and inflammatory cytokines, said Dr. Arden of Southampton (England) University Hospitals NHS Trust.

The 150 study participants were randomized to intraarticular corticosteroid injections in 40 mg triamcinolone and 2 mL of 1% lidocaine or irrigation of the knee with 500–1,000 mL of normal saline. At 2 weeks, pain scores had improved significantly from baseline, and there were no significant differences between treatment groups. The mean pain score for both groups was 243 at baseline, on a 0–500 scale. At 2 weeks scores fell to 168 in the steroid group and 155 in the irrigation group. At 26 weeks, significant pain relief was maintained only in the irrigation group (mean 173 vs. 232 for the steroid group). A similar pattern was seen for function at 26 weeks.

At baseline, 61% of patients had an ef- fusion, and at 2 weeks’ follow-up, there was little difference between treatment groups in this subset of patients. By 26 weeks, however, only patients treated with tidal irrigation had significant improvement, and this was more marked in patients without an effusion.

Among patients without an effusion, the mean pain score for those treated with irri- gation was 164 vs. 262 for patients treated with injections. Among patients with an effusion, the mean pain score for those treated with irrigation was 180 vs. 214 for patients treated with injections.

Patients’ overall assessment of treat- ment was similar at 2 weeks’ and 4 weeks’ follow-up. But patients’ self-assessments significantly favored tidal irrigation at 12 and 24 weeks, Dr. Arden said at the meet- ing, sponsored by the Osteoarthritis Research Society International.

Such findings in no way account for the placebo effect of the interventions, John D. Bradley, M.D., told this newspaper. Generally, “the more elaborate the interven- tion, the more potent the placebo effect.”

In their investigation, Dr. Bradley and colleagues at Indiana University, Indian- anapolis, tracked 180 randomized sub- jects with knee OA for up to 12 months following randomization to tidal irriga- tion or a sham procedure, which involved placement of a needle through the soft tis- sue and down to, but not through, the joint capsule. Both groups received intraarticular anesthesia with bupivacaine.

The controversial procedure is thought to disrupt intraarticular adhesions, and clear away debris and inflammatory cytokines.

Arthritis Pain Varies With Barometric Pressure and Outside Temperature

BY TIMOTHY F. KIRN
Sacramento Bureau

SAN ANTONIO — Physicians tend to be skeptical of arthritis pa- tients’ claims that they can feel bad weather coming on, but maybe they shouldn’t be, Timothy E. McAlindon, M.D., said at the an- nual meeting of the American College of Rheumatology.

Findings from a study by Dr. McAlindon and his colleagues at Tufts-New England Medical Cen- ter, Boston, suggest that persons with knee osteoarthritis do have greater pain when there are changes in barometric pressure.

Previous studies probably have failed to document this phenomenon because they have not been able to be as precise in their weath- er measurements as this study, sur- mised Dr. McAlindon, chief of the division of rheumatology at Tufts.

The investigators collected data on 205 patients who took part in a 3-month trial of glucosamine that tracked participants using the Inter- net, which enabled them to be from a variety of regions within the U.S. The subjects lived in 41 dif- ferent states; almost all of them ex- perienced very different weather. During the initial study, which found no positive effect from glu- cosamine, subjects completed Western Ontario and McMaster Universities Osteoarthritis Index pain questionnaires every 2 weeks.

Corresponding weather data were collected from the National Oceanic and Atmospheric Admin- istration stations, which in some instances were less than a mile from the subject’s house, Dr. McAlindon said.

In all, the investigators identi- fied more than 900 rain reports that correlated with weather. The data indicated that there was no significant association between pain scores and either the dew point or precipitation, which may be another reason previous stud- ies have been confounded, he said.

It did, however, find a weak but consistent association between pain and temperature: Each de- gree (Fahrenheit) drop was associ- ated with a one-degree increase in pain on the WOMAC scale. Simi- larly, the investigators found a strong association between pain and change in barometric pressure; this association was more pro- nounced with lower temperatures.

In keeping with the fact that pa- tients tend to say they have greater pain before the weather changes, the pain-barometric pressure asso- ciation did not occur so much with the drop in barometric pressure that accompanies a change in weather, but rather with the in- crease in barometric pressure that generally precedes a change in weather. Patients also often re- ported feeling better after a rain, which again is consistent with the fact that barometric pressure drops once a storm arrives, he added.

In a related report comparing 42 control subjects with 92 rheumat- ologist disease patients, 60 of whom had osteoarthritis and 12 of whom had rheumatoid arthritis, José Vergés, M.D., of Biobiocera SA, a pharmaceutical company in Barcelona, Spain, found that pa- tients with osteoarthritis, in par- ticular, had more joint pain when atmospheric pressure was low.

Dr. Vergés concluded that “it may be possible to modulate phar- macological and nonpharmaco- logical treatments for some os- teoarthritic patients, depending on the predictable weather conditions in order to avoid, as much as pos- sible, the disease-associated joint pain and functional incapacity” (Proc. West Pharmacol. Soc. 2004;47:134-6).

Glucosamine’s Benefits Supported in 5-Year Study

BY TIMOTHY F. KIRN
Sacramento Bureau

SAN ANTONIO — Glu- cosamine appears superior to many other osteoarthritis agents in reducing pain and disability, according to the findings of a 5-year observa- tional study.

Among 1,176 patients with osteoarthritis, those who took glucosamine consistently had lower WOMAC scores, 2% were using steroid injections, 2% were using nonsteroidal anti-inflammatory drugs, and 2% were taking other pain med- ications, 2% were using corticosteroids, and 2% were using lower-extremity devices.

Compared with glu- cosamine, none of the other treatments was associated with comparable improve- ments in WOMAC scores, which reflect disability and pain based on responses to a 24-item questionnaire, said Dr. Badley, director of the arthritis community research and evaluation unit at the Uni- versity of Toronto.

All patients had knee or hip osteoarthritis, and their mean age at baseline was 72 years. By the end of the 5-year pe- riod, 17% of patients were tak- ing glucosamine. No dosage information was available.

“If it is the glucosamine or whether it was the people who take glu- cosamine, we don’t know,” Dr. Badley said in an interview. “But clearly, we need to inves- tigate this finding further.”

Some of the other factors associated with the lower WOMAC scores included younger age, higher level of education, and male gender. The men’s WOMAC scores were on average 4 points low- er than those of women with similar demographic profiles and treatments.

Dr. Badley reported no fi- nancial interest in glucosa- mine or in companies that manufacture the dietary sup- plement.