

# Program Improves Comorbid Depression, Pain

BY MARY ANN MOON

A program of optimized antidepressant therapy and pain self-management in patients with comorbid depression and chronic pain produced substantial and sustained reductions in disability and depression and pain severity.

The program, which was assessed in a study of 250 patients, was implemented in two primary care clinic systems by a nurse care-manager supervised by a physician, reported Dr. Kurt Kroenke of the divisions of internal medicine and geriatrics, Indiana University, Indianapolis, and his associates (JAMA 2009;301:2099-110).

They conducted the Stepped Care for Affective Disorders and Musculoskeletal Pain (SCAMP) study to determine whether two types of treatment—pharmacologic and behavioral—would prove synergistic in treating the comorbid conditions. The subjects were men and women (mean age, 55 years) who had moderately severe or worse depression and moderately severe or worse chronic pain in the back, hip, or knee that had persisted for at least 3 months despite conventional analgesic therapy.

A total of 123 subjects were randomly assigned to receive the study intervention: 3 months of optimized antidepressant therapy, followed by an additional 3 months of pain self-management instruction, followed by 6 months of relapse prevention.

The antidepressants that were selected for the trial were venlafaxine (Effexor), fluoxetine, sertraline (Zoloft), citalopram (Celexa), bupropion, mirtazapine (Remeron), and nortriptyline (Aventyl).

The authors noted that the trial “was not designed to test any particular antidepressant but instead analyzed optimal medication management, which is both effective and tolerated in an individual patient.” The remaining 127 subjects served as a control group, receiving usual care.

The pain self-management program included at least five in-person and eight telephone contacts during which patients learned about “chronic pain triggers and flare-ups; coping with fear and other negative emotions; and strategies for physical activity, muscle relaxation, deep breathing, distraction, sleep hygiene, and working with clinicians and employers” to

manage their disability, the authors wrote.

Compared with usual care, the intervention produced “substantial” (at least 50%) reduction in depression severity within 1 month, which was sustained throughout 1 year of follow-up. The in-

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tervention group also was much more likely to experience depression response (37% of subjects) or remission (18%) than was the control group (16% and 5%, respectively).

The intervention also produced a 30% or greater reduction in pain, which was evident within 1 month of starting the program and was sustained for 1 year. Subjects in the intervention group had significantly better scores on measures of pain severity and pain interfering with everyday activities.

“Of the 58 intervention participants whose pain was better at 12 months, 8 were a little better, 21 were somewhat or moderately better, and 29 were a lot or

completely better. In contrast, only 16 usual care participants reported improved pain at 12 months, of whom 3 were a little better, 6 were somewhat or moderately better, and 7 were a lot or completely better,” Dr. Kroenke and his colleagues reported.

Patients in the intervention group also showed more improvement in secondary measures such as anxiety, functional impairments, and quality of life, the investigators said.

The authors noted several limitations of the study: Generalizability was limited because the subjects were drawn from urban underserved and Veterans Affairs clinics, a lack of blinding, and discordance between patient self-report and electronic health record data.

The study was funded by the National Institute of Mental Health. Dr. Kroenke reported receiving research funding and/or honoraria from Eli Lilly (Aventyl, Prozac), Pfizer (Zoloft), Wyeth (Effexor), and Astra-Zeneca and Forest Laboratories (Celexa). Dr. Blair reported receiving one-time consultant fees from Wyeth, Abbott, and Cephalon. None of the other authors reported any financial disclosures. ■

## Age at Onset of SLE Sets Osteonecrosis Risk in Children

BY DIANA MAHONEY

BOSTON — The incidence of steroid-induced osteonecrosis is significantly lower in childhood systemic lupus erythematosus than in adults with the disease, according to the findings of a prospective MRI study.

Additionally, among pediatric patients, age of lupus onset is an independent risk factor for the degenerative bone condition, Dr. Junichi Nakamura reported at the annual meeting of the Pediatric Orthopaedic Society of North America.

Characterized by the death of bone marrow and trabecular bone as a result of disruption of blood supply to the bone, osteonecrosis is a well-known complication of systemic lupus erythematosus (SLE) and is often associated with steroid therapy, yet the incidence of steroid-induced osteonecrosis in childhood SLE has not been well established, according to Dr. Nakamura of Chiba (Japan) Children's Hospital.

To assess the relative incidence of the condition in children and adults and to determine associated risk factors in children, Dr. Nakamura and his colleagues prospectively studied 169 patients, including 43 with childhood lupus (aged younger than 20 years at time of diagnosis) and 126 adults with the disease. All the patients fulfilled the 1982 revised American College of Rheumatology criteria for SLE, and all underwent MRI of the knee and hip when steroid therapy was initiated and again after at least 1 year of steroid therapy. The mean follow-up period was 7.8 years, and the follow-up rate was 100%, he said.

In total, 676 joint MRIs were analyzed, including initial and follow-up knee and hip MRIs for each adult and childhood SLE patient, Dr. Nakamura said. “The incidence of osteonecrosis was significantly lower in the childhood SLE group than the adults [31% and 41%, respectively].” During the follow-up period, osteonecrosis developed in 20 hips and 33 knees of 20 childhood SLE patients, and in 95 hips and 112 knees of 74 adult SLE patients, he reported.

Among the childhood SLE patients, age at SLE onset, highest dose of corticosteroid per day, and highest dose of corticosteroid per weight per day were compared between those who did and did not develop osteonecrosis, Dr. Nakamura said. The mean age of SLE onset in the osteonecrosis group was 17.2 years, compared with 13.3 years in the nonosteonecrosis group, representing a significant difference. The highest corticosteroid dose per day and the highest dose per weight per day were

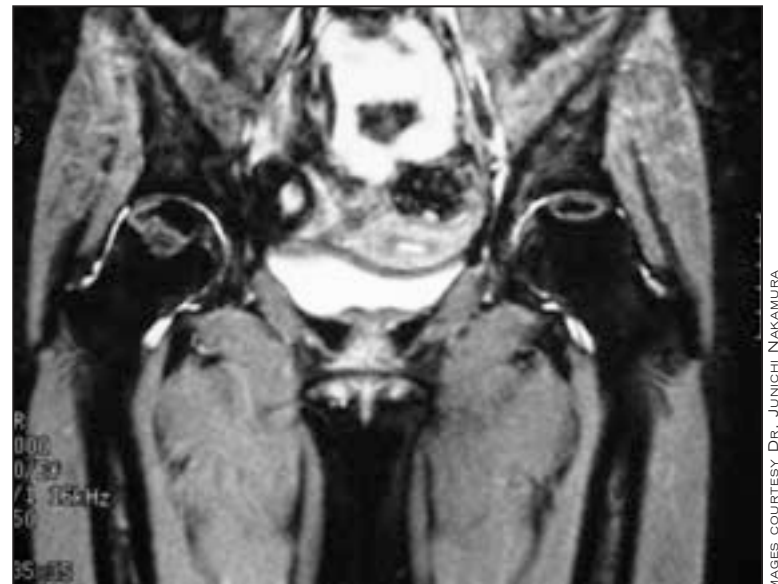
statistically similar between the two groups, he said.

In logistic regression analysis, “the incidence of osteonecrosis was significantly lower at the younger age of initial steroid treatment,” said Dr. Nakamura. “The odds ratio for osteonecrosis associated with older age of onset was 1.31.”

In the childhood SLE group, “osteonecrosis never developed before 14 years of age,” said Dr. Nakamura. “The youngest patients with osteonecrosis included a 14.9-year-old with osteonecrosis in the hip and a 15.5-year-old with osteonecrosis in the knee.”

Although the findings should be replicated in a larger investigation, clinicians should be cognizant of the potential increased risk of osteonecrosis in children diagnosed with SLE at a later age, in order to optimize screening and management, Dr. Nakamura concluded.

Dr. Nakamura had no conflicts of interest to disclose with respect to his presentation. ■



T1 (left) and STIR MRI (right) show osteonecrosis of the femoral head in a 14.9-year-old with systemic lupus erythematosus—the youngest SLE patient in the study with evidence of osteonecrosis. The growth plates of the femoral heads have already closed.