Migratory Arthritis? Rule Out Childhood Leukemia

Chicago — Physicians should rule out leukemia when evaluating children with migratory arthritis, David D. Sherry, M.D., reported at a symposium sponsored by the American College of Rheumatology.

Acute lymphocytic leukemia is the most common childhood systemic malignancy associated with musculoskeletal pain and/or arthritis, and its clinical features can often mimic those of juvenile idiopathic arthritis.

In about 50% of cases, the correct diagnosis is delayed. Patients with leukemia may have very painful arthritis or arthralgia that is usually one or more joints, including the hip or joints such as the talus-cuboid joint, which is rarely involved in juvenile arthritis, he said.

Other symptoms include low grade fever and body aches that are accentuated by weight bearing.

“These kids have to be carried, and you don’t carry kids with RA generally,” said Dr. Sherry, director of clinical rheumatology at the Children’s Hospital of Philadelphia.

Systemic symptoms are present at or near onset of disease but hematological abnormalities may take time to develop. One early warning signal is an elevated erythrocyte sedimentation rate, which may be present without other inflammatory markers, he said.

In a case involving a 5-year-old boy, the white blood count was normal, but the erythrocyte sedimentation rate was 89 mm/hr—well above the normal range of 1 to 30 mm/hr for males.

A plain radiograph of his swollen knee revealed a grey leukemic line. Metaphyseal bands may be present on x-ray, as well as osteopenia, cortical or periosteal lesions, and osteoarthritic changes.

Physicians also should be watchful for leukemia in children with hip disease or Down syndrome, he said.