

FELLOW'S CHALLENGE CASE

JANUARY-FEBRUARY 2004

An 8 year old girl is brought to you with a two month history of leg pains. At onset, the pains began in her arms and legs and occurred once to twice a week. The pains were mild and lasted only one hour or so. They were believed to be growing pains and resolved after four weeks. The child was well for two weeks. Then the parents noted that the child was limping, favoring the right leg. The arm and leg pain returned and was more severe and more frequent. A fleeting maculopapular rash was present for two days.

The child's pediatrician referred her to an orthopedist. On exam the physician noted mild pain and limitation with internal rotation of the right hip and diagnosed toxic synovitis. She prescribed ibuprofen and reassured the family that this problem should resolve soon. Unfortunately, the pains worsened and now woke the child up at night. She began having fevers to 38.5 degrees centigrade. The pediatrician reevaluated the child and found a mildly swollen left knee, tender left shin, and the mildly painful, limited right hip. He ordered lab tests. The lab results were: 1) CBC-hemoglobin 10.2 g/dl, WBC 4,300 cells/mm³, differential 45% PMN's, 42% lymphocytes, 5% eosinophils, 3% monocytes, 2% basophils; platelet count 500,000 cells/mm³; 2) ESR 52 mm/hour; C-reactive protein 1.3 (normal <0.2); ANA + at titer 1:160. The pediatrician then referred the child to your pediatric rheumatology clinic.

At the child's appointment at your clinic one week later, she cannot walk and is brought to you in a wheelchair. Your exam reveals mild limitation and pain of both hips. Lab tests reveal a WBC of 4000 cells/mm³ (40% PMN's, 55% lymphocytes, 4% monocytes, 1% eosinophils), a hemoglobin of 9.4 g/dl, a platelet count of 310,000 cells/mm³, an ESR of 65 mm/hour, an ANA of 1:160, and a negative rheumatoid factor. [You obtain radiographs \(Figure 1\).](#)

Your most likely diagnosis is:

- 1) osteomyelitis (a Brodie's abscess)
- 2) juvenile rheumatoid (idiopathic) arthritis, systemic onset
- 3) acute lymphoblastic leukemia
- 4) psoriatic arthritis
- 5) neuroblastoma
- 6) CRMO (chronic recurrent multicentric osteomyelitis)

Please e-mail your answer to [Linda Wagner-Weiner](mailto:Linda.Wagner-Weiner). The first correct answer will receive the CD-ROM of Pediatric Slide Collection of the American College of Rheumatology Courtesy of PROJ!