Migrating Osteoarthralgia: A Rare Initial Manifestation of Adult Leukemia

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Figure 1. Magnetic resonance imaging demonstrated abnormal signals in the bilateral femur and pelvis (A, arrows), and ⁹⁹mTc-methylene diphosphonate scintigraphy revealed multiple uptakes suggestive of infiltration of leukemic cells over systemic bones, including sacroiliac joints (B, arrows).

A 27-year-old woman was admitted to our hospital with an approximately 4-month history of acute-onset osteoarthralgia migrating in both shoulder and hip joints following severe cranialgia as an initial symptom. Physical examination showed obvious tenderness in the bilateral sacroiliac joints, and a diagnosis of acute lymphocytic leukemia (ALL) was made based on histopathological bone marrow findings. Although no abnormal findings were seen on X-ray examination, magnetic resonance imaging showed abnormal signals in the bilateral femur and pelvis (Fig. 1A), and ⁹⁹mTc-methylene diphosphonate scintigraphy revealed multiple uptakes suggestive of infiltration of leukemic cells over systemic bones, including sacroiliac joints (Fig. 1B). Osteoarthralgia was treated successfully by intensive chemotherapy against ALL. Bone infiltration of leukemic cells produces osteoarthralgia as an initial manifestation sometimes in children and rarely in adults (1-3). Acute leukemia should be considered as a possible diagnosis for polyosteoarthralgia, particularly when the clinical picture does not conform to collagen diseases.

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