Hodgkin's lymphoma mimicking juvenile arthritis

Sirs,

Musculoskeletal involvement has been well documented in patients with lymphoproliferative disorders (1-5). When rheumatic symptoms are the first manifestation of the disease, diagnosis may be difficult because, at the time of the initial presentation, signs of malignancy may be absent (1, 4).

We observed a girl with Hodgkin's lymphoma (HL) beginning with a persistent oligoarthritis.

The girl, aged 11, was admitted to our Department for a three-week history of swelling in both ankles and in the left knee. Symptoms developed two weeks later an upper respiratory infection.

Physical examination showed swelling, minimally painful and restricted motion of both ankles and of the left knee. The rest of the examination was unremarkable; in particular there was no palpable lymph node or significant hepatosplenomegaly. The girl was apyretic.

Her laboratory parameters were: WBC 12.087/mm^3; Platelets 522.000/mm^3; Haemoglobin 10.7 gr/dl; ESR 10 mm/h; CRP 4.54 mg/dl (nv: 0–0.5); LDH 513 U/l (nv: 313–618). Urine analysis was normal. Stool blood was absent.

Serological tests, blood, throat, urine and stool culture, excluded common viral and bacterial infections. Knee, ankles, chest radiography and two-dimensional echocardiography were normal. HLA-B27, rheumatoid factor and antinuclear antibodies were absent. Blood calcium and angiotensin converting enzyme were within normal values.

A juvenile idiopathic arthritis (JIA) was suspected and a course of ibuprofen (30 mg/kg/die) was started with clinical and laboratory improvement. After 3 months of therapy a slight reduction in acute phase reactants was observed. At that time the dose of ibuprofen was lowered. Two months later, the patient experienced a recurrence with swelling of both ankles. She also presented a left supraclavicular enlarged lymph node and a splenomegaly. Chest x-rays showed hilar adenopathy.

Abdominal ultrasound showed the presence of splenomegaly with multiple hypoechoic lesions (Fig. 1). Abdominal and chest computed tomography confirmed the presence of the spleen hypodense areas and the mediastinal enlarged lymph nodes of 2 cm diameter.

A bone marrow biopsy presented normal parameters. Needle biopsy of a supraclavicular lymph node showed a stage IIIs A HL, subtype nodular sclerosis. After the first course of chemotherapy, her arthritis symptoms completely cleared up.

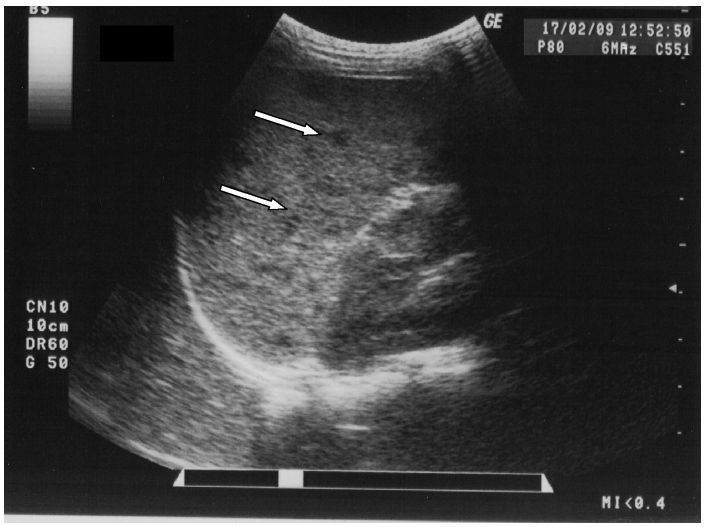

Fig. 1. Patient's ultrasound showing spleen lesions (arrows).

Arthritis as the first sign of HL is very rare. Two paediatric cases, with sacroiliitis as the beginning manifestation of HL, have been reported (3).

Childhood leukemia is the most common haematologic malignancy mimicking JIA; the disease can present joint pain or swelling even in absence of haematological changes (6). Pathogenetic mechanims of bone and joint involvement include: infiltration of malignant cells into bone or synovial tissue, synovial reaction to periosteal or capsular infiltration and immune complex synovitis (7). Diagnosis may be difficult because of the paucity of signs of malignancy, as in our patient. Indeed, in the first months of follow-up, the girl described had no fever or asthenia, no night sweats, no abdominal symptoms, no lymph node or spleen enlargement. The slight anaemia and the elevation of acute phase reactant concentrations were easily explained by the presence of a chronic inflammatory disease. Although oligoarticular JIA usually occurs in females younger than 6 years old, exceptions may exist in older children.

We did not perform a synovial fluid analysis, because it is not a routine examination in JIA. However, synovial fluid cytology, in a few studies performed in leukemia and lymphomas, did not show significant cytologyc abnormalities (8).

In conclusion, HL should be considered in the differential diagnosis of oligoarthritis in children. Unusual features such as asymmetrical pauciarticular pattern and the absence of morning stiffness should alert clinicians to an extensive diagnostic work-up including synovial biopsy and magnetic resonance examination of the involved joints.

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