Nodular lesions of the scalp and a mediastinal mass in T cell acute lymphoblastic leukemia

Anna Konik · Ulrich Dührsen · Alexander Röth

Received: 13 March 2010 / Revised: 25 April 2010 / Accepted: 31 May 2010 / Published online: 18 June 2010
© The Japanese Society of Hematology 2010

A 20-year-old man presented with a 3-week history of nodular lesions of the scalp (Fig. 1a, b), which progressed despite topical treatment with glucocorticosteroids. He also had cervical lymphadenopathy and complained of headache, fatigue and blurred vision. His blood count demonstrated a pronounced leukocytosis of 114/nL with 55%

lymphoblasts, slight thrombocytopenia (83/nL) and a normal hemoglobin level (150 g/L). The serum levels of lactate dehydrogenase (LDH 6402 U/l), creatinine (1.94 mg/dl) and uric acid (16.1 mg/dl) were significantly elevated, and there were laboratory findings indicative of disseminated intravascular coagulation (INR 1.69, D-dimer 5053 µg/L).

Fig. 1 **a, b** Nodular lesions of the scalp in a patient with newly diagnosed T cell acute lymphoblastic leukemia. **c** The chest X-ray demonstrated a large mediastinal mass. **d** Resolution of the mediastinal mass after initiation of the chemotherapeutic treatment

A. Konik · U. Dührsen · A. Röth (✉)
Department of Hematology, University Hospital Essen,
University of Duisburg-Essen, Hufelandstr. 55,
45122 Essen, Germany
e-mail: alexander.roeth@uk-essen.de

Microscopic and flow cytometric analyses of blood and bone marrow were consistent with acute lymphoblastic leukemia (ALL) of mature T cell type. The chest X-ray revealed a mediastinal mass (Fig. 1c). Treatment was started with oral dexamethasone at a dose of 10 mg/m² per day (d1–5) and cyclophosphamid 200 mg/m² per day (d3–5) (German Multicenter ALL Study Group; study protocol

GMALL 07/2003). As early as 3 days after the first dose, the skin lesions and the mediastinal mass regressed completely (Fig. 1d), paralleled by a dramatic improvement of the leukocyte count (11.83/nl) and the serum values of LDH (1179 U/l) and creatinine (1.18 mg/dl). A mediastinal mass is present in over half of patients with newly diagnosed ALL of T cell origin, but skin lesions are rare.