PAEDIATRIC DERMATOLOGY

A FATAL CASE OF ALEUKEMIC LEUKEMIA CUTIS REAVEALING AN ACUTE MYELOID LEUKEMIA.

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Background: Leukemia cutis (LC) is a rare condition characterized by leukemic cell infiltration in the dermis and subcutaneous tissue. One of the most common causes of LC is acute myeloid leukemia (AML). The frequency of LC in patients with AML accounts for about 2-3%. These patients have a high prevalence of unfavorable risk factors and chemotherapy-related deaths. Herein, we report a fatal case of LC with AML in a 6-month-old infant.

Observation: At 4 months-old, a male infant developed diffuse firm nodular purplish lesions. Physical examination was otherwise unremarkable. The initial blood count was normal. The cutaneous biopsy of the nodules found a blast monocytoid proliferation. The diagnosis was acute myeloid leukemia cutis. The biopsy results were confirmed by two institutions. No blast cells were found in the peripheral blood smear. The evolution was marked by a spontaneous regression of the cutaneous nodules. Therefore, the patient was placed under medical observation. Unfortunately, a month later, his blood analysis showed normogenic normocytic anemia and neutropenia. The bone marrow aspiration revealed the presence of 40% of negative MPO blasts and the immunophenotyping confirmed the diagnosis of acute monoblastic leukemia type 5. The medullary karyotype was normal; the infant was included in the protocol AML-2011 chemotherapy. The patient later died due to a septic shock during induction.

Key message: Most cases of LC are seen after the diagnosis of leukemia is confirmed. However, in one third instances, LC has been described as being a precursor to the development of acute leukemias, preceding the medullar and the peripheral blood involvment, hence the term “Aleukemic Leukemia Cutis”.
In this case, the histopathological analysis of the lesions plays a major role in the diagnosis
The treatment of LC depends on the control of the underlying leukemia, unfortunately, skin involvement of leukemia indicates poor prognosis.