

Acute Erythroblastic Leukemia Revealed by Dermatological Manifestations



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Abstract

Acute erythroblastic leukemia is characterized by the proliferation of a predominant erythrocyte population on other lineages. Cutaneous manifestations remain rare and misleading, making the diagnosis of difficult to suspect as first-line. Here, we report an unusual and rare case of acute leukemia in a 24 year old male with gingival hypertrophy and dermatological manifestations. This case emphasizes that dentist and dermatologist should be well acquainted with these manifestations of systemic diseases.

Case Report

We report the case of 24 years old patient, with no significant pathological history, who had a rash for 10 days in a context of fever and very bad general condition. At admission the patient was febrile, tachycardic and dyspneic. Physical examination revealed erythematopurplish papulonodules on the face, trunk, limbs and a gingival hyperplasia. The oral state was deplorable. Bilateral cervical lymphadenopathy was also found without the patosplenomegaly (Figures 1-3). The biological assessment showed a CRP of 150 and a pancytopenia with a Hbat 7.5g / dl, normal VGM and CCMH, a deep thrombocytopenia at 85000 / l, leukocytes at 1500 / l. The blood smear showed 35% of circulating blasts and 22% of erythroblasts (Figure 4).



Figure 1: Clinical Manifestations of AML.

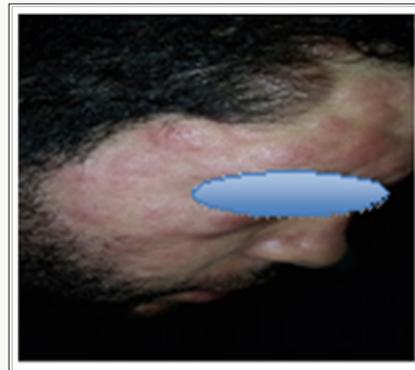


Figure 2: Clinical Manifestations of AML.



Figure 3: Clinical Manifestations of AML.

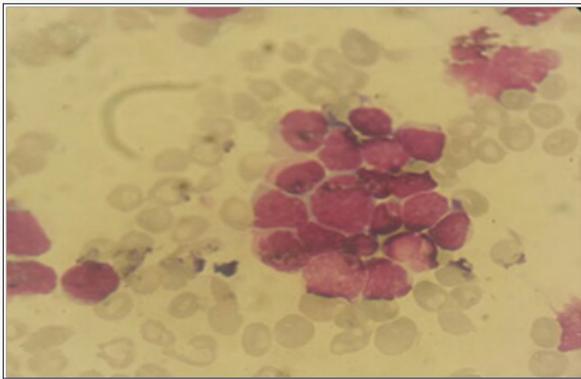


Figure 4: Blood smear showing 35% of circulating blasts.

The medullo gram showed a hyper-cellular marrow with a rate of myeloblasts greater than 45% compared to all non-erythroblastic elements and erythroblastic hyperplasia estimated at more than 65%; with signs of dyserythropoiesis suggestive of the diagnosis of erythroleukemia (Figure 5). Blood immune phenol typing was positive for CD13, CD33, MPO and Glycophotin A. The evolution was unfavourable; the patient died due to massive alveolar hemorrhage.

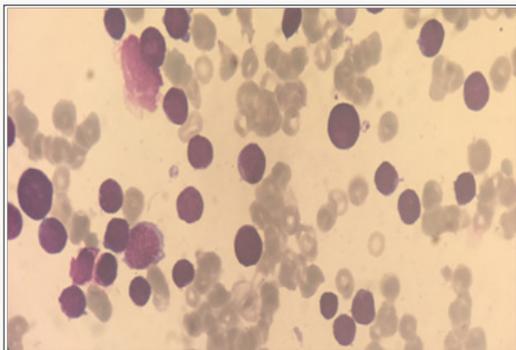


Figure 5: Hyper cellular marrow infiltrated by a blastic contingent estimated at 45%.

Discussion

Acute erythroblastic leukemia is characterized by the proliferation of a pre dominant erythrocyte population on other lineages. There are two types: Erythroleukemia: defined by the presence in the bone marrow of more than 50% of the erythroid precursors of all the medullary cells, and more than 20% of myeloblasts of the whole non-erythrocyte medullary cells - Pure erythroid leukemia: it presents a neoplastic proliferation made of more than 80% of erythrocyte cells without obvious presence of the myeloblastic contingent [1]. It is usually manifested by signs of bone marrow failure and cytopenia [2,3], skin involvement remains rare, varied and disorienting the diagnosis; they are found mainly in Acute myeloblastic leukemia [4,5]. Cutaneous manifestations during leukemia are infrequent and varied. They designate all the cutaneous lesions related to the haematological malignancy directly or indirectly following their treatment; we essentially distinguish.

The specific dermatological lesions which can reveal hematological diseases [4], are mainly represented by leukaemides

(leukaemia cutis), which are red brown to purple dermal papules, plaques or nodules. Granulocytic sarcoma as an extra-medullary tumour masses, ulcerated plaques and gingival hypertrophy [5]. The infectious dermatoses secondary to the biological disturbances accompanying the malignant hemopathy and their treatments. The occurrence of specific cutaneous lesions in leukemia is synonymous with a major aggravation of the prognosis (with for example a survival twice as short if there is a specific cutaneous involvement); this seriousness makes some authors propose different treatments with a medium-long stay hospitalization [6-8].

In our case, acute myeloblastic leukemia 6 (AML 6) was revealed by diffuse leukemias resulting from the infiltration and proliferation of malignant hematological cells (blasts) in the skin and by gingival hyperplasia secondary to mucosal infiltration [5]. The clinical presentation of acute leukemia including AML6 in the form of ulcerative necrotic gingivitis in the foreground, is a rare form to be remembered, mentioned in all courses of medicine and dentistry, stipulating that gingival involvement is a classic feature of leukemia [6]. The frequent association of skin cancers with hematological malignancies is also highlighted in several publications [5].

Conclusion

The cutaneous localizations are among the rarest extramedullary lesions of acute myeloid leukemia's (AML) not exceeding 1%. They are generally considered as factors of worse prognosis. Their cytogenetic or mutational specificities remain unestablished to date.

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