

Leukemia Cutis

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A 7 month old boy presented with multiple swellings all over the body, progressive pallor and fever of 25 days duration. The nodules first appeared on the abdomen followed by the scalp and spread to involve the whole body. They also increased in size. Along with fever patient developed progressive pallor which was not associated with any bleeding manifestations. On examination, the child was stable. He was severely pale with multiple discrete nodules all over the body including scalp, with size varying from 1cm to 3 cm, with hepatosplenomegaly. A complete blood count showed a hemoglobin level 44g/L, total leukocyte count $6.5 \times 10^9/L$, total platelet count of $219 \times 10^9/L$, differential count showed 60% blast cells, 30% lymphocytes, 9% neutrophils, 1% eosinophils. The skin biopsy showed blast cells that were positive for Periodic acid Schiff (PAS) and negative for Sudan Black. A bone marrow aspirate confirmed acute lymphoblastic leukemia with 95% blast cells. Immunophenotyping showed that the blasts were positive for CD10 and negative for CD3, CD20, CD34, CD117, MPO and CD99. Based on the clinical picture, skin biopsy, peripheral smear and bone marrow examination, the child was diagnosed as a case of leukemia cutis with acute lymphoblastic leukemia.

acute lymphoblastic leukemia (ALL) is the most common leukemia of childhood[1]. Leukemia cutis is an infiltration of skin by neoplastic leukocytes (myeloid/lymphoid) resulting in clinically identifiable cutaneous lesions[2]. It is most commonly seen in congenital leukemia and acute myeloid leukemia (AML)[2]. In the

pediatric population, the frequency of leukaemia cutis is higher in pediatric AML (approximately 10%) than in pediatric ALL (1%)[3,4]. It can occasionally precede the development of blast cells in marrow and blood. The condition is then known as aleukemic leukemia cutis[3,4].

The most common manifestation is described as erythematous or violaceous plaques, papules or nodules involving the face, trunk and extremities[2]. Less common appearances include macules, maculopapules or plaques[2]. In the setting of AML, Leukemia cutis presents as a firm nodule with a greenish hue known as chloroma or granulocytic sarcoma[2]. In the neonate, leukemia cutis often present in skin as blue berry muffin appearance[5]. The disease has a poor prognosis[4].

REFERENCES

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