



A CASE OF ISOLATED SUBCUTANEOUS ABSCESS LEADS TO THE DIAGNOSIS OF CHRONIC LYMPHOCYTIC LEUKEMIA

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ABSTRACT Chronic lymphocytic leukemia is monoclonal disorder characterized by progressive accumulation of incompetent lymphocytes. Patients with CLL have defect both in humoral and cell mediated immune response as result of their underlying malignancy. Hence these patients prone for both localized and systemic infections frequently. Hence it is important for clinician to recognize the systemic cause of skin and subcutaneous related infections for early diagnosis and treatment.

KEYWORDS : Abscess – CLL –lymphocytosis- Neutropenia - Bone marrow aspiration.

Case Presentation

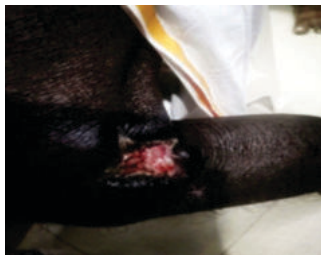
A 84 year old gentleman presented to the OPD with complaints of pain and swelling over left lower limb involving lateral aspect of lower thigh and knee joint for past one week. He has no history of diabetes, hypertension and not on any other drugs. He depicts the past history of pulmonary TB being diagnosed, for which he completed his ATT 6 months back. Upon examination, he was conscious, oriented, slightly febrile, not anemic, not icteric, no generalised lymphadenopathy. He had tachycardia and his BP was within normal limits. Cardiovascular, respiratory, GI systems were normal. Blood investigation done, revealed blood sugar, renal parameters, liver function tests all found to be normal. His complete blood count profile found to be abnormal. Total count was elevated -46,500, hb- 13.7, platelet-90,000. As patient was found to be toxic, initial incision and drainage was done to relieve his pain and to alleviate his toxicity. CBC repeated on same day revealed [TC-51,000 (leukocytosis), neutropenia - 16%, with lymphocytosis -80%], platelets -87000, rbc- 5.19 lakhs/cu.mm. He was admitted and started empirically on inj. piperacillin tazobactam 4.5 gm iv tds dosage. Peripheral smear was done on the patient it shows, RBC-appears normocytic and normochromic, WBC-differential count shows increase in mature lymphocytes, atypical lymphocytes and smudge cells. Platelets were reduced in number and clumps. Pictures suggestive of chronic lymphoproliferative disorder. He was further proceeded with bone marrow aspiration cytology after getting consent. Erythroid series shows 37% normoblastic maturation, myeloid series have normal maturation up to neutrophils, megakaryocytic series absent. Differential count- [lymphocytes -33, blast-1, promyelocyte-3, myelocyte-7, metamyelocyte-1, band forms-4, neutrophils-11, eosinophils-2, plasma cells-1]. He was staged, by Rai stage IV, as high risk category. By Binet's staging he is categorised as stage C. His abscess started resolving day by day. It's well healed with granulation tissue.

DISCUSSION :

Chronic lymphocytic leukemia is characterized by clonal expansion of CD5, CD23 B cell in blood, bone marrow and second lymphoid tissues. Accumulation and slow proliferation of maturely appearing but functionally incompetent leukocytes leads to hypogammaglobulinemia [IgG, IgA, IgM]. Reduced IgG leads to respiratory infections. Impaired natural killer cells, neutrophils, monocytes and macrophages makes the host susceptible to localised and systemic bacterial, fungal and viral infections. Most commonly skin and soft tissue infections being caused by streptococci, staphylococci and other gram negatives.

CONCLUSION :

The most common cause for subcutaneous abscess are due to chronic ailments like diabetes, chronic kidney and liver disease, primary, secondary immunocompromised status and due to localized causes. If we analyse the root cause of every abscess we may clinch the rare systemic causes like leukemias. Hence proper evaluation may help the patients to get treated for their underlying major systemic illness.



Abscess Over The LOWER LIMB, incision And Drainage Done. wound Healed With Granulation Tissue

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Cellularity	Marrow Cellularity	Smart Cellularity
Cellularity (Smart cellularity) indicates healthy hematopoietic stem		
Myeloid - Erythroid Ratio	1.0 : 1.0	
Comments - Total number of cells (Smart cell)		
Erythroid Series	Erythropoiesis - Normoblastic maturation (37%)	
Myeloid series	Normal maturation up to neutrophils.	
Megakaryocyte series	Absent	
Comments - Absence of platelets - Megakaryocytes		
Differential Count		
Blasts	1	
Promyelocytes	3	
Myelocytes	7	
Metamyelocytes	1	
Band Forms	4	
Neutrophils	11	
Eosinophils	2	
Lymphocytes	33	
Monocytes	1	
Basophils	0	
Plasma Cells	1	
Comments - Lymphocytes and plasma cells - Lymphocytic leukemias (CLL, prolym and T-CLL)		
Others	Erythropoiesis - Normoblastic maturation (37%)	
Impression	Polypartoid bone marrow aspirate with lymphoplasmal and absent megakaryocytes	

Bone Marrow Aspiration Cytology Revealed Chronic Lymphoproliferative Disorder