Case Report

Leprosy in Chronic Lymphocytic Leukaemia: Rare Case Report

Dermatology Section

SUDHAKAR RAO K.M., JAYASHREE PAWALE, ANKAD B.S., VARNA NAIDU, H.B. KOTBAGI

ABSTRACT

This is a case report of a rare chronic lymphocytic leukaemia with lepromatous leprosy. A fifty nine year old male presented with epistaxis and abdominal pain. Investigations revealed high leucocyte count of 72,600cells/cmm, a differential count of 89% lymphocytes and 11% polymorphs and a platelet count 13,000cells/cmm. The case was diagnosed as chronic lymphocytic leukaemia and pulse chemotherapy was started. Three months after the chemotherapy, the patient developed a painful, non-pruritic, tender nodule, which on biopsy, showed histiocytic granulomas in the dermis. AFB staining showed globi and fragmented baciili. The patient received treatment for both leukaemia and leprosy. After six months, the lesions are becoming faint. On follow up, the patient has been found to be recovering.

Key Words: Leprosy, Chronic lymphocytic leukaemia (CLL)

INTRODUCTION

This is a case report of chronic lymphocytic leukaemia with lepromatous leprosy. The association between malignancies and leprosy is rare. The commonest associations of leprosy with carcinoma which have been reported, are carcinoma of the internal organs, squamous cell carcinoma in trophic ulcer, lymphoma and leukaemia [1,2,3]. This is the second case of leprosy with chronic lymphocytic leukaemia, which has been noted so far in the literature [1].

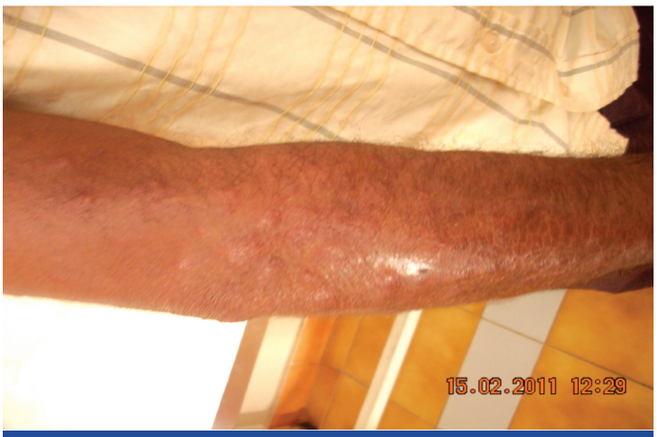
CASE REPORT

A fifty nine year old male presented with bleeding from nose, abdominal pain, fever and malaise to the physician. Investigations revealed Hb of 10.9%, a total leucocyte count of 72,600cells/cmm, a differential count of 89% lymphocytes and 11% polymorphs and a platelet count of 13,000cells/cmm. The case was diagnosed as chronic lymphocytic leukaemia. The physician started with pulse chemotheraphy (chlorambucil and prednisolone). Three months after the chemotherapy, he noticed painful, non-pruritic rashes over the trunk and the extremities, which were associated with fever, joint pain and pedal oedema. So, the patient was referred to the dermatological section. Examination of the skin revealed multiple tender nodules over the trunk and over the extensor aspect of the upper and lower limbs, madorosis, epistaxis and pedal oedema. No patches or mucosal involvement or peripheral nerve thickening were seen.

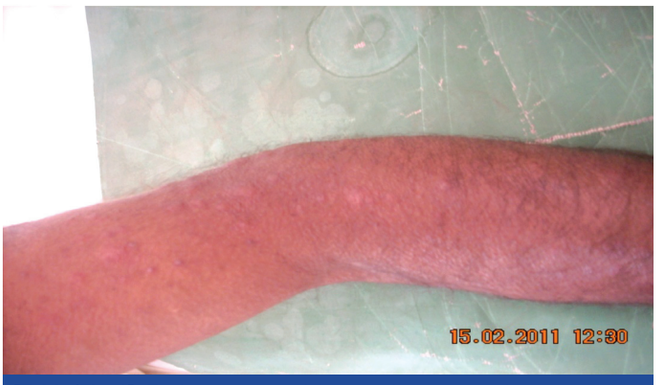
A differential diagnosis of leprosy with the type II reaction, erythema nodusum (tuberculids) and sweet syndrome was given.

A biopsy of the skin was taken and it was sent to HPR. The histopathological examination of the skin showed thinning of the epidermis, thus revealing a grenz zone with sheets of macrophage in the dermis. Acid fast bacilli staining showed globi and fragmented AFB bacilli. The histopathological diagnosis which was made was lepromatous leprosy.

The patient was then given treatment for leukaemia and leprosy simultaneously. The skinlesion then became faint.



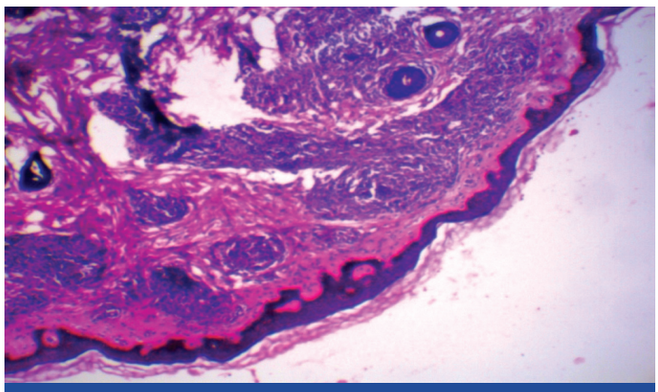
[Table/Fig-1]: Erythematous nodules over upper extremites



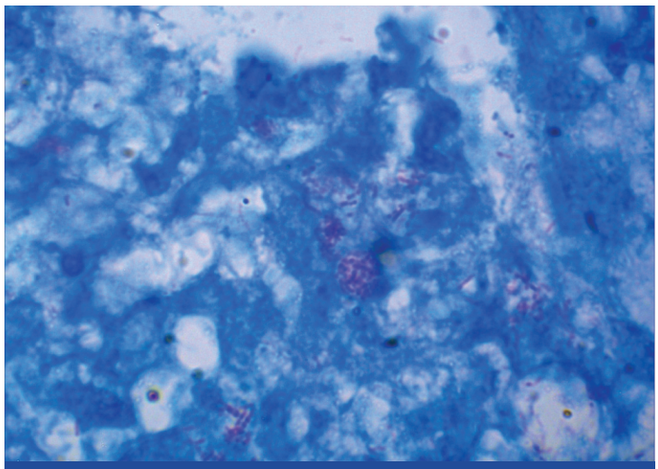
[Table/Fig-2]: Erythematous nodules over lower extremites

DISCUSSION

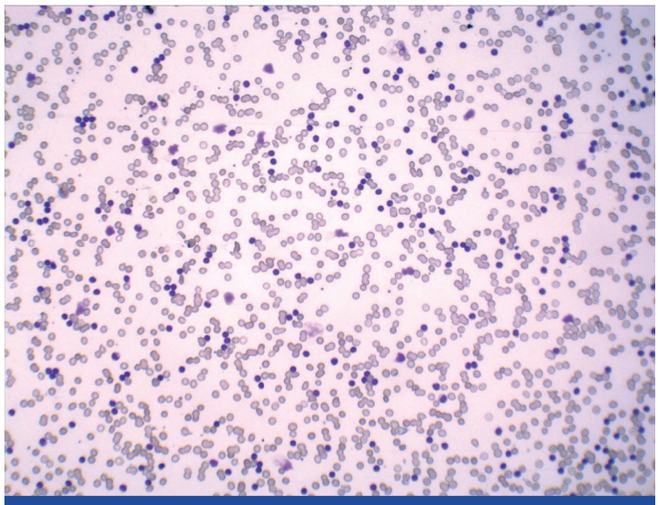
Skin manifestations in chronic lymphocytic leukaemia are common and include non-specific leukaemids (these are the rashes which are intensely pruritic and the biopsy fails to show any leukaemic infiltration) [4], exfoliative dermatitis, urticaria, hyperpigmentation and non-specific eczematous eruptions [5].



[Table/Fig-3]: Histiocytic granulomas with thinned out epidermis



[Table/Fig-4]: Histiocyte packed with AFB positive bacilli



[Table/Fig-5]: lymphocytosis with reduced platelet count (CLL)

The incidence of a cutaneous infections in leukaemic patients who receive corticosteroids and chemotherapeutic agents are high. The common infections include superficial bacterial infections, fungal infections like candidiasis and aspergillosis and viral infections like herpes zoster and herpes simplex [6].

The differential diagnosis for the cutaneous manifestations in this case was leprosy with type II reaction, erythema nodosum (tuberculids) and sweet syndrome.

One of the causes of erythema nodosum is M.tuberculosis.

In our case, tender nodules were noticed over the trunk and the extremities, whereas in erythema nodosum, the nodules are commonly noticed over the pretibial region [7].

The histopathological sections which were studied in our case showed histiocytic granuloma with plenty of AFB bacilli on special staining, whereas in erythema nodosum, there could have been panniculities [8]. So, the diagnosis of erythema nodosum was ruled out.

The presence of AFB globi and the grenz zone and the absence of secondary epidermal changes ruled out other forms of cutaneous tuberculosis [9].

In sweets syndrome, the patients present with tender nodules anywhere over the body and dermal neutrophilic infiltration, which were not seen in our case [10, 11].

In cases of drug reactions, the patients present with itching, mucosal involvement and eosinophilia, whereas in our case, there was no itching, mucosal involvement, or eosinophilia . The patient was taking steroids for CLL and so the chances for drug reactions were less [12].

CONCLUSION

Leprosy has rarely been reported with chronic lymphocytic leukaemia. The occurrence of leprosy in this patient with chronic lymphocytic leukaemia was probably coincidental. It appears that the administration of corticosteroids and chlorambucil had resulted in the exacerbation of the leprosy lesions. Only two cases of leprosy with chronic lymphocytic leukaemia have been reported so far in the literature [1].

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AUTHOR(S):

1. Dr. Sudhakar Rao K.M.
2. Dr. Jayashree Pawale
3. Dr. Ankad B.S.
4. Dr. Varna Naidu
5. Dr. H.B. Kotbagi

PARTICULARS OF CONTRIBUTORS:

1. Corresponding Author.
2. Assistant professor in Dept of pathology, SN medical college, Bagalkot, India.
3. Assistant Professor, Dept of Dermatology, SN medical college, Bagalkot, India.
4. Assistant Professor, Dept of Dermatology, SN medical college, Bagalkot, India.
5. Professor, Dept of pathology, SN medical college, Bagalkot, India.

NAME, ADDRESS, TELEPHONE, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Sudhakar Rao K.M.
C-9 staff quarters, SN Medical College,
Bagalkot, Karnataka - 587101.
Phone: 9972315388.
E-mail: address:drkmsudhakarrao@gmail.com.

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