Dermatopathic lymphadenitis in HIV

H. R. Vanisri, N. M. Nandini, Sumeet Gujral, G. V. Manjunath
Department of Pathology, JSS Medical College, Mysore, Department of Pathology, Tata Memorial Hospital, Mumbai, India

Address for correspondence:
Dr. H. R. Vanisri, 59/D5, 2nd Main, 2nd Cross, Yadavgiri, Mysore - 570 020, India. E-mail: drvani16@yahoo.co.in

Abstract
Dermatopathic lymphadenitis is a rare entity described in patients with Human immunodeficiency virus infection. Here we present a case of dermatopathic lymphadenitis in a 50-year-old female who was HIV positive and did not have any obvious skin lesions. Fine needle aspiration cytology of the lymphnode showed a lymphoproliferative lesion and a subsequent biopsy showed atypical lymphoid proliferation showing prominent T-zone. Immunohistochemistry showed features of dermatopathic lymphadenitis.

Key words: Dermatopathic lymphadenitis, follicular dendritic cells, human immunodeficiency virus, immunohistochemistry

INTRODUCTION
Dermatopathic lymphadenitis is a well-described histopathological entity characterized by expansion of subcortical zone by dendritic histocytoid cells.[1] Dermatopathic lymphadenitis represents a benign form of reactive lymph node hyperplasia.[2] The relationship between lymph node hyperplasia and cutaneous disease was first described by Pantrier and Woringer as lipomelanotic reticulosis. Subsequent investigators also have described patients with dermatitis and lymphadenopathy.[3,4] The name dermatopathic lymphadenitis was coined by Hurwitt.[5] Dermatophatic lymphadenitis is often seen in patients with mycosis fungoides and sezary syndrome, but has rarely been described in the absence of clinical skin disease.[6-8]

CASE REPORT
A 53-year-old female presented with history of fever and gastroenteritis of seven days duration. On examination, she had generalized lymphadenopathy with enlarged cervical, axillary, and inguinal group of lymph nodes. There were no organomegaly. Hematological investigations revealed hemoglobin 8 g%, total leukocyte count 4000 cells/cmm, differential count of 40% neutrophils and 60% lymphocytes. Stool and ultrasound examination of abdomen was normal. ELISA for retrovirus was positive and CD4 cell count was 144 cells/cmm. She did not have any obvious skin lesions.

Fine needle aspiration cytology (FNAC) of cervical group of lymph nodes showed lymphocytes, plasma cells, neutrophils, eosinophils along with histocytoid cells [Figure 1]. A lymph node biopsy showed atypical lymphoid proliferation with prominent T-zone and pigment laden histiocytes. Mixed inflammatory infiltrate was seen comprising plasma cells and immunoblasts. Reedsternberg cells and granulomas were not noted [Figure 2].

Immunohistochemistry tests (CD20, CD43, CD3, CD138) substantiated the benign nature of the lymph node. CD23 was done to highlight follicular dendritic cells (FDC), that occur outside the normal follicles. The FDCs get highlighted depicting the normal follicular framework of the lymph node. Thus dermatopathic lymphadenitis was considered as the diagnosis [Figure 3].

DISCUSSION
Dermatopathic lymphadenitis is a rare entity described in patients with HIV-1 infection. This patient was retroviral positive without any skin lesions. Dermatopathic lymphadenitis has been described in patients without concomitant skin
FNAC of cervical lymphnode yielded material which showed mixed population of cells comprising lymphocytes, plasma cells, neutrophils, and eosinophils along with histiocytoid cells. Melanin-laden histiocytes were not noted as reported in the earlier studies. Therefore, a diagnosis of lymphoproliferative lesion was considered.

The lymph node biopsy showed atypical lymphoid proliferation showing prominent T-zone with pigment-laden histiocytes. Mixed inflammatory infiltrate was seen comprising plasma cells and immunoblasts. Reed sternberg cells and granulomas were not seen. However, immunohistochemistry results substantiated the benign nature of the node.

Dendritic cells are a normal constituent of lymphnode paracortex and they proliferate in large numbers in dermatopathic lymphadenopathy. These cells are related phenotypically to interdigitating cells of skin and are of langerhan cell lineage. The dendritic cells are thought to present antigen to immunocompetent T cells. Perhaps patients with acquired immune deficiency syndrome (AIDS) are more likely to develop dermatopathic changes due to wide variety of transient and insignificant skin problems. It is known that the number of langerhans cells in the epidermis is decreased in AIDS patients. This decrease may be due to migration of cells from epidermis to the paracortical region of the lymph node and this may account for the dermatopathic changes seen histologically.

We conclude that dermatopathic lymphadenitis can exist in patients with no evidence of skin lesions.

Dermatopathic lymphadenitis though a rare association with HIV infection can still be a possibility in patients with prominent T-zone and pigment-laden histiocytes. Immunohistochemistry should be considered for a definitive diagnosis as FNAC and biopsy can be inconclusive.
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