

Letter to the Editor

Cutaneous Hodgkin's lymphoma

DOI: 10.4103/sajc.sajc_195_17

Dear Editor,

Cutaneous involvement by Hodgkin's disease (HD) is very rare and seen in only 0.5%–3.5% of cases.^[1] It is characterized by the presence of Reed–Sternberg (RS) and Hodgkin's cells in a characteristic milieu of lymphocytes, plasma cells, eosinophils, and few histiocytes.

We present the case of an 80-year-old male patient who presented with a history of multiple ulcers over the left thigh which varied in sizes from 0.5 cm to 2.0 cm. He took anti-tubercular treatment for 6 months but failed to find any relief. On further examination, he was found to have inguinal and pelvic lymphadenopathy. Hence, fine-needle aspiration cytology of inguinal node was performed, which hinted toward the presence of a neoplasm; however, no definite diagnosis was offered. For some mysterious reasons, this was not followed up by a biopsy of the lymph node; rather, the patient underwent biopsy of skin ulcer.

A paraffin block of excised skin ulcer was received for opinion. Histology revealed ulcerated skin with large-sized tumor cells set against a background of lymphocytes, plasma cells, and eosinophils [Figure 1a]. An exhaustive list of morphologically similar entities such as lymphomatoid

papulosis, granulomatous skin lymphoma, anaplastic large cell lymphoma, and regressing atypical histiocytosis were considered as differential diagnoses. This warranted an extensive panel of immunohistochemical markers. Tumor cells were immunoreactive for CD 20. [Figure 1d], CD30 [Figure 1b], CD15 [Figure 1c], and paired box (PAX-5) [Figure 1f] and were negative for CD3 [Figure 2a], CD4 [Figure 2b], CD5, CD7, CD8 [Figure 2d], CD43 [Figure 2c], CD4 [Figure 2b] 5, CD 45 [Figure 1e] EMA [Figure 2e], and anaplastic lymphoma kinase-1 [Figure 2f]. Morphological assessment of tumor in conjunction with results of the immunohistochemistry panel helped us conclude that this was a case of cutaneous Hodgkin's lymphoma (HL). Bone marrow biopsy done subsequently was clean. After confirmation of HD, the patient received ABVD chemotherapy and is doing well.

The first description of specific cutaneous lesions of HD was given by Grosz in 1906.^[2] Bluefarb categorized the specific lesions of Hodgkins disease as follows: (1) papules; (2) infiltrations or plaques; (3) nodules or tumors; (4) ulcerative lesions; (5) various combinations of these lesions; and (6) erythroderma.^[3] The enigma surrounding the diagnosis of primary cutaneous HL was resolved when Sioutos *et al.* published the first verifiable series of cases with a diagnosis based on immunohistochemistry and modern imaging techniques.^[2] Our case presented to us with an ulcerative lesion over the skin where tumor cells in addition to the classical

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pattern of immunoexpression also showed positivity for CD20. Tzankov *et al.* in their study found 20% of the classic HL cases expressing CD20 and have discussed that expression can range from 5% to 80%.^[4] PAX5 is a member of the highly conserved PAX domain family of transcription factors, located on chromosome 9p13, and it is expressed in all the developmental stages of the B-cells, but not in the plasma cells or the T-cells.^[5] It is generally known to have faint nuclear staining of Hodgkin's and RS cells as concurred by Desouki *et al.* in their study.^[6] Johri *et al.* in their study found that in classical HL, the staining intensity varies from weak to moderate and is rarely strong compared with the normal reactive small lymphocytes.^[5] Our case showed strong immunoexpression for PAX5. We feel that as this is a rare finding, it needs to be validated further. The conundrum of whether this represents a true blue case of primary cutaneous HL remains to be resolved, as this patient did not have his lymph node biopsied.

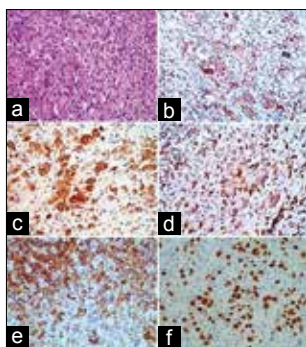


Figure 1: (a) H and E, $\times 200$, (b) CD30 $\times 200$, (c) CD15 $\times 200$, (d) CD20 $\times 200$, (e) CD45 $\times 200$, (f) PAX5 $\times 200$

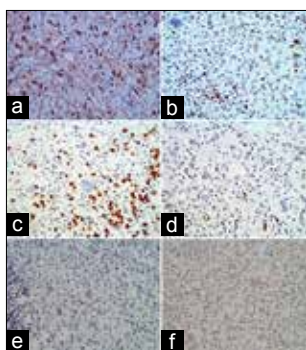


Figure 2: (a) CD3 $\times 200$, (b) CD4 $\times 200$, (c) CD43 $\times 200$, (d) CD8 $\times 200$, (e) EMA $\times 200$ (f) ALK 1 $\times 200$

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

This study was financially supported by SRL Limited.

Conflicts of interest

There are no conflicts of interest.

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References

1. Goyal S, Biswas A, Puri T, Gupta R, Muzumder S, Julka PK. Different faces of cutaneous Hodgkin's disease. *Indian J Dermatopathol Diagn Dermatol* 2014;1:79-82.
2. Koch K, Patel M, Pather S, Modi D. Primary cutaneous Hodgkin's lymphoma: A rare disease variant and review of the literature. *J Case Rep Stud* 2016;4:204.
3. White RM, Patterson JW. Cutaneous involvement in Hodgkin's disease. *Cancer* 1985;55:1136-45.
4. Tzankov A, Fend F, Fischhofer M, Greil R, Dirnhofer S, *et al.* Prognostic significance of CD20 expression in classical Hodgkin's lymphoma: A clinicopathological study of 119 cases. *Clin Cancer Res* 2003;9:1381-6.
5. Johri N, Patne SC, Tewari M, Kumar M. Diagnostic utility of PAX5 in Hodgkin's and non-Hodgkin's lymphoma: A Study from Northern India. *J Clin Diagn Res* 2016;10:XC04-7.
6. Desouki MM, Post GR, Cherry D, Lazarchick J. PAX-5: A valuable immunohistochemical marker in the differential diagnosis of lymphoid neoplasms. *Clin Med Res* 2010;8:84-8.

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How to cite this article: Ambekar AA, Soman CS. Cutaneous Hodgkin's lymphoma. *South Asian J Cancer* 2017;6:170-5.

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