



SKIN CANCER (OTHER THAN MELANOMA)

## **HUMAN T-CELL LYMPHOTROPIC VIRUS (HTLV) TYPE-1-ASSOCIATED ADULT T-CELL LEUKEMIA/LYMPHOMA (ATLL) PRESENTING WITH DIFFUSE LICHEN NITIDUS-LIKE RASH**

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**Background:** Adult T-cell leukemia/lymphoma (ATLL) is rare lymphoid malignancy associated with human T-cell lymphotropic virus (HTLV) type-11. Cutaneous manifestations are reported in approximately half of ATLL cases<sup>2</sup>. Diagnostic criteria include immunophenotypical and histopathological evidence of T-lymphocyte malignancy and HTLV-1 seropositivity<sup>3</sup>. Dermatologic and oncologic management HTLV-1-associated ATLL remains a challenge.

**Observation:** A 57-year-old male of Jamaican origin with no significant past medical history presented with a 6-month history of diffuse papular rash. Following treatment with topical corticosteroids for scalp and face seborrheic dermatitis, he noticed pruritic papules on his cheeks. Topical and oral antibiotics were prescribed for steroid-induced acne with no improvement and dissemination of the rash to the entire skin. On presentation, he denied fever, chills, night sweats, or weight loss. Physical examination was notable for Fitzpatrick V skin type, multiple monomorphic pin-point keratotic papules on the head, neck, limbs, and torso that were denser on the face, dorsal hands and feet, flexor wrists, and extensor surfaces of the arms, and cervical and inguinal lymphadenopathy. Punch biopsy of a papule on the back revealed atypical CD30+ T-cell lymphocytic infiltrate with an epidermotropic component, CD4:CD8 ratio of 5:1. A large subset of neoplastic cells showed CD25 positivity. Clonal rearrangement involving the TCR-beta/gamma genes was identified. On peripheral blood smear, abnormal lymphocytes with clefted "flower-like" nuclei were identified. Blood test results were noteworthy for elevated lactate dehydrogenase (267 U/L) and HTLV-1 seropositivity. Blood flow cytometry detected an abnormal T-cell population (CD2+/CD4+/CD7-/CD26-/CD8-/CD56-/CD279-). PET scan showed no evidence of FDG-avid disease. The patient was diagnosed with HTLV-1-associated ATLL. Oral bexarotene 300 mg/day and topical corticosteroids were given for only three weeks at the time of report with no apparent improvement.

**Key Message:** HTLV-1-associated ATLL is a rare lymphoid malignancy frequently associated with cutaneous manifestations. Familiarity with immunophenotypical and histopathological features may aid in diagnosis.

