Herpes simplex virus lymphadenitis: a rare cause of necrotizing lymphadenitis in an immunosuppressed renal transplant patient

Ketcham MS1, Miller T1

1 Department of Pathology and Genomic Medicine, Houston Methodist Hospital, Houston, TX

INTRODUCTION

Necrotizing lymphadenitis is a feature of multiple pathologic entities, including Kikuchi-Fujimoto disease, lupus lymphadenitis, and several infectious lymphadenitis etiologies such as tuberculosis, histoplasmosis, leprosy, cat-scratch disease, and syphilis.1

Herpes simplex virus (HSV) has rarely been reported as the infectious agent of localized or regional necrotizing lymphadenitis, primarily in association with a hematolymphoid malignancy such as chronic lymphocytic leukemia.2-7

To our knowledge, HSV lymphadenitis associated with solid organ transplant immunosuppression has not been previously reported in the literature.

MATERIALS/METHODS

Patient history was obtained via the electronic medical record. Formalin-fixed, paraffin-embedded tissue sections were examined.

Immunohistochemical stains for herpes simplex virus I-III and cytomegalovirus (CMV) were performed. EBER in situ hybridization was performed.

CASE REPORT

A 32-year-old female with a history of systemic lupus erythematosus and renal transplantation presented to the emergency department with complaints of lower abdominal pain, vaginal bleeding, and femoral and inguinal lymphadenopathy for the past 2 weeks with progressive tenderness. The patient was immunosuppressed with mycophenolic acid, tacrolimus, and prednisone due to her renal transplant. Differential diagnosis included infectious lymphadenitis, systemic lupus erythematosus lymphadenitis and post-transplant lymphoproliferative disorder.

A right inguinal lymph node excision was performed and sections showed areas of necrosis with geographic pattern containing numerous multi-nucleated giant cells with a prominent eosinophilic intranuclear inclusion.

No definitive staining was present for EBER or CMV. The multinucleated cells were positive for HSV I-III immunohistochemical stain, consistent with herpes lymphadenitis. Ulcerative lesions of the perineum were found on physician examination and the patient was treated with acyclovir.

DISCUSSION

• Herpes simplex virus lymphadenitis is an important diagnostic consideration when encountering painful lymphadenopathy and necrotizing lymphadenitis, particularly in the setting of an immunocompromised or immunosuppressed patient

• HSV necessitates treatment with antiviral therapy

• Thorough examination for herpetic viral cytopathic effect when encountering necrotizing lymphadenitis is essential since such changes may be subtle

• HSV I/II immunohistochemical stain may be helpful for diagnosis

REFERENCES