

A case of vulvar tumoral/vegetative herpes infection in an immunocompromised patient

Samantha Scott, Adrienne Bonham, Glynis Scott

ABSTRACT

Diagnosis of genital herpes is generally straightforward, allowing for prompt treatment. However, genital herpes may rarely present as large vegetative plaques, also known as “tumoral herpes” or “vegetative herpes,” mimicking malignancy, most commonly in patients infected with the HIV-AIDS virus. Tumoral/vegetative herpes (TVH) in renal transplant patients are rare. An 85-year-old woman with a history of renal transplant presented with a 1-year history of large painful vulvar masses. On exam, the patient had multiple exophytic lesions over the right labia majora extending to the perineum. A wide local excision was performed. Pathology revealed an exophytic lesion with abundant dermal inflammation. The epidermis showed scattered herpetic inclusions within keratinocytes that stained positively for herpes simplex virus types 1/2. A diagnosis of TVH was made. We present this patient to alert the clinician that genital herpes may present as an exophytic mass mimicking malignancy, particularly in immunocompromised patients. While the majority of cases of TVH have been reported in patients infected with HIV-AIDS, it is important to recognize that TVH may occur in other settings of immunocompromise, including patients with renal transplant.

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INTRODUCTION

Herpes simplex viruses (HSV) are a large family of viruses that cause latent infection in their hosts. Diagnosis of HSV infection is typically straightforward in immunocompetent patients, who present with painful vesicles on mucocutaneous surfaces such as the mouth and genitals. In immunocompromised hosts, clinical presentation of infection with HSV is highly variable, and includes pustular or ulcerative lesions in unusual locations [1].

Genital herpes in immunocompromised patients rarely presents as large vegetative plaques, also known as tumoral or vegetative herpes (TVH), mimicking malignancy. This rare variant of genital herpes has been reported most frequently in patients infected with HIV-AIDS, but has also been reported in patients with lymphoma. Tumoral or vegetative herpes is thought to be a result of abnormal immune reaction to the herpes virus [2–5]. To our knowledge, ours is the second report of a patient with genital TVH arising in a renal transplant patient [6].

CASE REPORT

The patient is an 85-year-old woman with a complex past medical history including renal transplant in 2005, infiltrating ductal cancer of the left breast status post bilateral mastectomy in 2012, and diabetes. Medications include prednisone 5 mg every other day and acyclovir 1 g/day for a prior history of perianal herpes.

The patient presented to her gynecologist with a 1-year history of painful vulvar masses. A biopsy of the right labia majora was performed in January 2021 and was interpreted as “ulceration with granulation tissue and abscess.”

On exam the patient had multiple exophytic lesions over the right labia majora extending to the perineum (Figure 1). The largest lesion measured was 7×5 cm. There was a 4×3 cm lesion on the right perineum and a 7×2 cm lesion lateral to the right labia majora. Because of suspicion for occult malignancy not detected in the initial biopsy, a wide local excision was performed.



Figure 1: Clinical photograph shows large ulcerated exophytic lesions involving the right vulva.

Review of the pathology revealed a large exophytic mass with abundant inflammation including lymphocytes and plasma cells in the dermis (Figure 2A). There was ulceration with herpetic inclusions noted within rare keratinocytes that stained positively for immunocytochemical stains against herpes simplex virus (Figure 2B and C). Review of the initial biopsy revealed herpetic inclusions that had been missed by the original pathologist. A diagnosis of TVH was made.

DISCUSSION

Tumoral/vegetative herpes is an uncommon manifestation of herpes simplex virus infection most

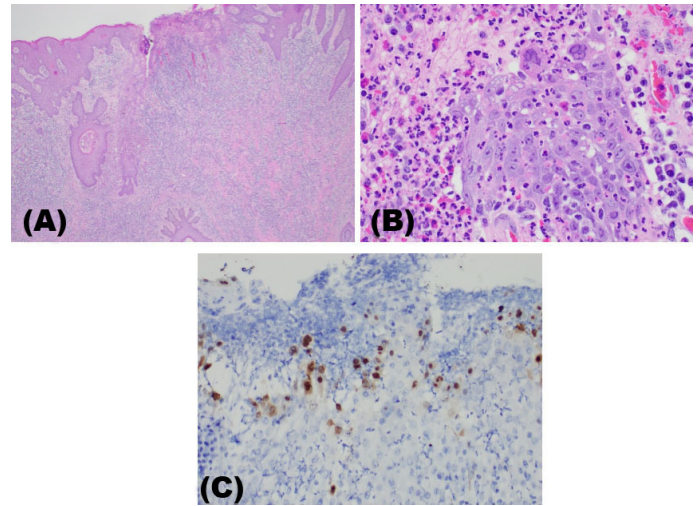


Figure 2: (A) Low power micrograph of the lesion shows an ulcerative nodular lesion with extensive dermal inflammation, and reactive epithelial hyperplasia (Hematoxylin and Eosin, 2×). (B) Higher power shows multinucleated giant cells characteristic of herpes virus infection (Hematoxylin and Eosin, 40×). (C) Immunocytochemical stains against HSV1/2 reveal positive nuclear staining within infected keratinocytes, consistent with involvement of the skin by HSV1/2 (40×).

frequently seen in patients with HIV-AIDS. In this report, we describe a patient with chronic immunosuppression secondary to renal transplant, with a prior history of perianal herpes infection, presenting with a vegetative mass that was misdiagnosed clinically as a malignancy. It should be noted that the patient was on acyclovir, consistent with known resistance of TVH to acyclovir, as well as other antivirals [7, 8].

Tumoral/vegetative herpes is a diagnostic pitfall for clinicians and pathologists. The initial biopsy of the lesion was misread as inflammatory, without note of the presence of typical herpetic viral inclusions within keratinocytes. Pathologists should be aware of TVH, as the predominant manifestation may be one of inflammation and fibrosis, with only scattered herpetic inclusions [3]. Tumoral/vegetative herpes is resistant to treatment with antivirals. Immune modulators, including imiquimod and surgical excision have been proposed as treatments [9, 10]. While TVH most commonly presents in patients with HIV-AIDS, clinicians should be aware that TVH can occur in other settings of immunocompromise, including chronic immunosuppressive therapy in renal transplant patients.

CONCLUSION

We present this patient to alert the clinician that genital herpes may present as an exophytic mass, particularly in immunocompromised patients. While the majority of cases of TVH have been reported in patients infected with HIV-AIDS, it is important to recognize that TVH may occur in other settings of immunocompromise, including patients with renal transplant.

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Author Contributions

Samantha Scott – Conception of the work, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all

aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Adrienne Bonham – Conception of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Glynis Scott – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Guarantor of Submission

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Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

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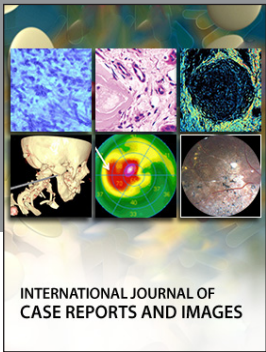
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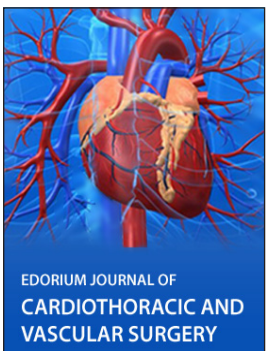
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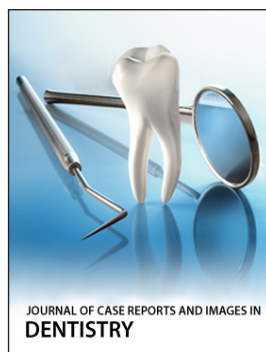
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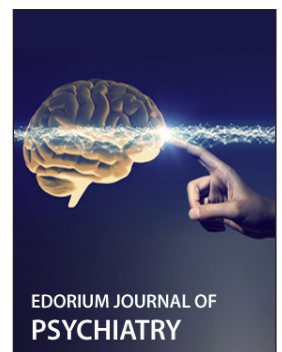
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