# Perianal Ulceration and Verrucous Papules

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A 75-year-old woman with chronic lymphocytic leukemia undergoing ibrutinib targeted therapy presented to the emergency department with fever and perianal pain of 4 months' duration. The patient denied history of genital or perianal ulcers, warts, masses, bedsores, prolonged immobilization, anal surgeries, or recent travel. She had not been previously treated for the perianal pain. On physical examination there was an 18×15-cm shallow ulceration with rolled borders involving the intergluteal cleft and perianal area. There were numerous hyperpigmented verrucous papules clustered in the center of the ulceration. No vesicles or bullae were present. Laboratory results were pertinent for a white blood cell count of 3600/µL (reference range, 4500–11,000/µL) and absolute neutrophil count of 1300/µL (reference range, 1900-8000/μL). Human immunodeficiency virus testing was negative.

#### WHAT'S THE **DIAGNOSIS?**

- a. cutaneous Crohn disease
- b. herpes simplex virus infection
- c. invasive squamous cell carcinoma
- d. Mycobacterium tuberculosis infection
- e. pyoderma gangrenosum

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### THE **DIAGNOSIS**:

## Herpes Simplex Virus Infection

iral culture of the ulcer was positive for herpes simplex virus type 2 (HHV-2). Bacterial culture grew enteric flora. The patient was started on intravenous acyclovir 5 mg/kg every 8 hours for 7 days and then transitioned to oral acyclovir for chronic suppressive therapy. One month later, there was near-complete reepithelialization with 2 remaining 1-cm shallow ulcers. The verrucous lesions had dried up and were flaking off (Figure). At 6-month follow-up, the ulcers and verrucous lesions had completely resolved.

Herpes simplex virus type 2 is the most common cause of genital and perianal ulcers in immunocompromised individuals.<sup>1</sup> Patients classically present with painful grouped vesicles followed by painful superficial ulcers that may rapidly progress to extensive confluent ulceration. A hypertrophic variant of genital herpes characterized by anogenital verrucous lesions, similar to condyloma acuminata, also can be seen in immunocompromised individuals.<sup>2</sup> This form has almost exclusively been observed in patients with human immunodeficiency virus and may occur in isolation or together with the ulcerative form.<sup>1-5</sup> A case of vegetative HHV infection of the genital area in a patient with common variable immunodeficiency has been reported.<sup>6</sup> Verrucous lesions



Treatment of herpes simplex virus type 2 with near-complete reepithelialization of the perianal region as well as postinflammatory hypopigmentation and islands of repigmentation at 1-month follow-up; 2 central 1-cm ulcers remained. The verrucous lesions decreased in number and appeared to be drying up and flaking off.

of the mouth secondary to HHV have been observed in Hodgkin lymphoma, acute myelogenous leukemia, and individuals on immunosuppressive medications.<sup>7-10</sup>

Perianal involvement of Crohn disease typically presents with fistulas, ulcers, abscesses, strictures, and skin tags in some cases. Invasive squamous cell carcinoma may arise within a chronic ulcer of the anogenital area or may itself manifest as an ulcer or anal fissure. Perianal ulcerative skin tuberculosis has been reported in the literature as a rare manifestation of extrapulmonary tuberculosis and should be considered in a patient with an appropriate clinical history. Pyoderma gangrenosum classically presents as a large ulcer with irregular rolled borders, though a rare variant of vegetative pyoderma gangrenosum may manifest as a nodular or verrucous plaque.

Studies to diagnose HHV include viral cell culture, HHV polymerase chain reaction testing, HHV serology, and direct fluorescent antibody testing. Skin biopsy may be necessary to rule out underlying malignancy. Treatment of perianal HHV infection includes acyclovir, valacyclovir, or famciclovir. 1,5,6 Hypertrophic lesions often are refractory to first-line antiviral therapy and may require surgical resection or treatment with alternative medications such as imiquimod, a topical immunomodulator. 3,5,6,11

#### **REFERENCES**

- Ranu H, Lee J, Chio M, et al. Tumour-like presentations of anogenital herpes simplex in HIV-positive patients. Int J STD AIDS. 2011;22:181-186.
- Tong P, Mutasim DF. Herpes simplex virus infection masquerading as condylomata accuminata in a patient with HIV disease. Br J Dermatol. 1996;134:797-800.
- Mosunjac M, Park J, Wang W, et al. Genital and perianal herpes simplex simulating neoplasia in patients with AIDS. AIDS Patient Care STDS. 2009;23:153-158.
- Gubinelli E, Cocuroccia B, Lazzarotto T, et al. Nodular perianal herpes simplex with prominent plasma cell infiltration. Sexually Transm Dis. 2003;30:157-159.
- Nadal SR, Calore EE, Manzione CR, et al. Hypertrophic herpes simplex simulating anal neoplasia in AIDS patients: report of five cases. *Dis Colon Rectum*. 2005;48:2289-2293.
- Beasley KL, Cooley GE, Kao GF, et al. Herpes simplex vegetans: atypical genital herpes infection in a patient with common variable immunodeficiency. J Am Acad Dermatol. 1997;37(5, pt 2):860-863.
- Burke EM, Karp DL, Wu TC, et al. Atypical oral presentation of herpes simplex virus infection in a patient after orthotopic liver transplantation. Eur Arch Otorhinolaryngol. 1994;251:301-303.
- Tabaee A, Saltman B, Shutter J, et al. Recurrent oral herpes simplex virus infection presenting as a tongue mass. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2004;97:376-380.
- Leming PD, Martin SE, Zwelling LA. Atypical herpes simplex (HSV) infection in a patient with Hodgkin's disease. Cancer. 1984;54:3043-3047.
- Burgoyne M, Burke W. Atypical herpes simplex infection in patients with acute myelogenous leukemia recovering from chemotherapy. J Am Acad Dermatol. 1989;20:1125-1126.
- Deza G, Martin-Ezquerra G, Curto-Barredo L, et al. Successful treatment of hypertrophic herpes simplex genitalis in HIV-infected patient with topical imiquimod. J Dermatol. 2015;42:1176-1178.