

## Bigger Foot: Kaposi's Sarcoma



Rekha R. Rapaka, MD, PhD,<sup>a</sup> Max Fischer, MD,<sup>b</sup> Thomas E. Finucane, MD,<sup>a</sup> Agnes Mwakingwe, MD, PhD<sup>a</sup>

Departments of <sup>a</sup>Internal Medicine and <sup>b</sup>Dermatology and Pathology, Johns Hopkins Bayview Medical Center, Johns Hopkins University School of Medicine, Baltimore, MD.

### PRESENTATION

A normal CD4+ T cell count does not preclude opportunistic infection in an HIV-positive patient. This point was illustrated by the evaluation of a 33-year-old African American man with a history of asymptomatic HIV-1 infection. He presented to the Johns Hopkins Bayview Medical Center after 2 days of fever, chills, right lower-extremity pain, erythema, and swelling. His CD4+ T cell count was 774 cells/ $\mu$ L on presentation, and he had no history of treatment with highly active antiretroviral therapy (HAART) or of an AIDS-defining illness.

The patient had a number of medical episodes during the previous year. One year prior to presentation, he developed right lower-extremity cellulitis, which was treated with antibiotics. His symptoms improved, but he later noticed residual lower-extremity swelling severe enough to require a larger shoe size on the right foot. Ten months before presentation, a nodular rash erupted on the right lower extremity. The nodules first appeared on his right ankle, and over the course of several months, approximately 10 additional nodules emerged on his right foot, leg, and thigh. These were described as 0.5-2 cm in size, firm, mildly tender, nonpruritic, and of similar pigmentation to his skin color. He noticed that most of the nodules slowly increased in size. A few ruptured, leaking serosanguineous fluid and leaving behind a raised scar. Seven months prior to admission, he was diagnosed with syphilis and treated with penicillin. His nontreponemal antibody titer declined rapidly on a repeat rapid plasma reagin test (from 1:128 to 1:16 at presentation), consistent with treatment. Finally, 2 weeks before presentation, he was diagnosed with shingles affecting the L1 level dermatome. Treatment with valacyclovir produced complete resolution.

The patient, an elementary school teacher, was homosexual, with a history of multiple sexual partners, and he had a pet dog. At the time he was seen, he had not recently traveled internationally, and he had no history of smoking, drinking alcohol, or using illicit drugs.

### ASSESSMENT

The patient was alert, oriented, and able to provide a clear history. On presentation, his temperature was 103.1°F (39.5°C), pulse was 122 beats per minute, respiratory rate was 24 breaths per minute, and blood pressure was 128/96 mmHg. He was not in acute distress, but he had rigors. A II/VI systolic ejection murmur was heard best at the left upper sternal border. The rest of the cardiopulmonary examination was within normal limits. A 1-cm erythematous ulcer, consistent with herpes labialis infection, was noted on his lower lip, and his oropharynx demonstrated no exudates or lesions.

The patient's right lower extremity was 30% greater in size than the left and was notably erythematous and tender from the toes proximally to mid-thigh. The skin in this area was firm and without exudate or weeping and demonstrated 1+ pitting to the mid-thigh level. Approximately 12 firm, nontender nodules with varied morphology were evident on his right lower extremity, concentrated on the right anterior leg, lower thigh, ankle, and foot (**Figure 1**). A few of these nodules appeared vesicular, and 1 was leaking serosanguineous fluid. He had a right inguinal lymph node mass that was tender, mobile, and measured 2  $\times$  4 cm, and a smaller palpable popliteal lymph node of the right lower extremity. Small plaques consistent with tinea pedis marked his feet, though he had no broken skin or ulcers.

Laboratory studies on admission showed a white blood cell count of 24  $\times$  10<sup>3</sup> cells/ $\mu$ L (differential: 61% polymorphonuclear cells, 28% bands, 9% lymphocytes, 1% metamyelocytes), CD4+ T cell count of 774 cells/ $\mu$ L, CD4+ T cell percentage of 57.5%, and an HIV viral load of 28,000 copies/ $\mu$ L. Given that the patient's history and physical examination findings indicated cellulitis, including possible methicillin-resistant *Staphylococcus*

**Funding:** None.

**Conflict of Interest:** None.

**Authorship:** All authors had access to the data and played a role in writing this manuscript.

Requests for reprints should be addressed to Rekha R. Rapaka, MD, Johns Hopkins Bayview Medical Center, 4940 Eastern Avenue, Baltimore, MD 21224.

E-mail address: [rekha.rapaka@gmail.com](mailto:rekha.rapaka@gmail.com)



**Figure 1** The Kaposi's sarcoma lesions on the patient's right lower extremity were quite varied and accompanied by right lower-extremity lymphedema. **A**, Multiple small nodular lesions were seen on the ankle and foot. **B**, Asymmetry in size was evident between the right and left lower extremities. **C**, Lesions were at different stages; 1 was large, ruptured, and scabbed. **D**, An ovoid plaque was evident on the leg. Note that no significant pigmentation difference exists between the color of the nodules and the patient's skin color.

*aureus* (MRSA)/suppurative cellulitis, he was treated with intravenous vancomycin. Bacterial, fungal, and mycobacterial blood cultures were drawn on admission.

Tachycardia, tachypnea, erythema, and edema of the right leg improved after a few days on antibiotics, but the patient was still having daily high fevers of 102.2-104°F (39-40°C) 6 days after treatment began. Results from the original blood cultures were unremarkable as were those from subsequent bacterial cultures. Computed tomography of the right lower extremity and pelvis, performed to evaluate for underlying abscess, revealed a conglomerate of enlarged lymph nodes within the right inguinal region. The aggregate measured approximately 4 × 3 × 7 cm, and multiple prominent right external iliac chain lymph nodes, measuring up to 1.4 cm, were seen. While the patient's CD4+ T cell count did not suggest an immunocompromised state, his recent shingles outbreak, lymphadenopathy out of proportion to what might be expected for cellulitis, chronic right lower extremity lymphedema, persistent fevers, and leg nodules of unclear etiology were concerning for underlying malignancy or opportunistic infection.

## DIAGNOSIS

It was unclear how, if at all, the nodules on the patient's leg were related to his acute presentation and the suspected diagnosis of typical acute cellulitis. Initially, their appearance raised concerns for cutaneous bacillary angiomatosis caused by *Bartonella henselae* or *Bartonella quintana*, which are associated epidemiologically with cat exposure or head and body lice.<sup>1</sup> Bacillary angiomatosis develops most commonly in advanced HIV and in patients with CD4+ T cell counts lower than 100 cells/μL, although cases have occurred in immunocompetent hosts.<sup>2</sup> Cutaneous lesions, which may be present for weeks to months, are often papular, erythematous, and in assorted shapes with smooth or eroded surfaces. Evidence of vascularity can be present, and they can bleed; lesions in dark-skinned patients may simply appear hyperpigmented.<sup>3</sup> Other infectious etiologies that could have explained the nodules and constitutional symptoms included cutaneous mucormycosis, cutaneous coccidiomycosis, cutaneous cryptococcosis, and cutaneous mycobacterial infections.<sup>4-6</sup>

Testing of a biopsy sample from an ankle nodule demonstrated Kaposi's sarcoma herpesvirus and latency-associated

Download English Version:

<https://daneshyari.com/en/article/2725269>

Download Persian Version:

<https://daneshyari.com/article/2725269>

[Daneshyari.com](https://daneshyari.com)