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A Painful Rash

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A 40-year-old man presented to the emergency department with a 5-day history of fever, productive cough, and a painful rash. The rash was composed of grouped, raised, fluid-filled vesicles with an erythematous base and honey-colored crusting (Figure 1). The patient had a history of prior tuberculosis infection, illicit drug use, and human immunodeficiency virus (HIV). On initial physical examination, oral temperature was 98.5°F, pulse was 110 beats/minute, respiratory rate was 22 breaths/minute, blood pressure was 151/79 mm Hg, and oxygen saturation (SpO_2) was 94%. Laboratory test results at admission were as follows: hemoglobin 10.6 g/dL; platelets 364,000 cells/μL; white blood cell count 8,300 cells/μL; CD4 count 132 cells/μL; total serum protein 9.1 g/dL; albumin 2.0 g/dL; and lactate dehydrogenase (LDH) 158 IU/L. Chest radiograph showed diffuse pulmonary infiltrates bilaterally (Figure 2). Sputum cultures showed regular respiratory flora and no acid fast bacilli. Viral cultures of the vesicular lesions were positive for varicella zoster virus (VZV). The patient was started on acyclovir for VZV. After 2 days the patient's symptoms improved and he was subsequently discharged.

Herpes zoster is caused by the reactivation of a latent VZV infection in the dorsal root ganglion or cranial nerve ganglion. Zoster is characterized by an erythematous, vesicular, pustular rash in a unilateral dermatomal distribution. Immunosuppression is a risk factor for zoster; however, 92% of cases are in immunocompetent patients.[1] Further, immunocompromised patients are more likely to develop disseminated zoster infection, including pneumonia, hepatitis, and encephalitis. These patients are also more likely to have secondary bacterial superinfections of cutaneous lesions and respiratory tracts.[2] While zoster is often self-limiting, it can lead to significant morbidity and mortality in immunocompromised patients. Intravenous acyclovir should be considered in patients with disseminated disease or visceral involvement, with advanced HIV, and in transplant patients being treated for rejection.[2] Unilateral erythematous, vesicular rashes in a dermatomal distribution should yield a high clinical suspicion for herpes zoster, especially in immunocompromised patients.

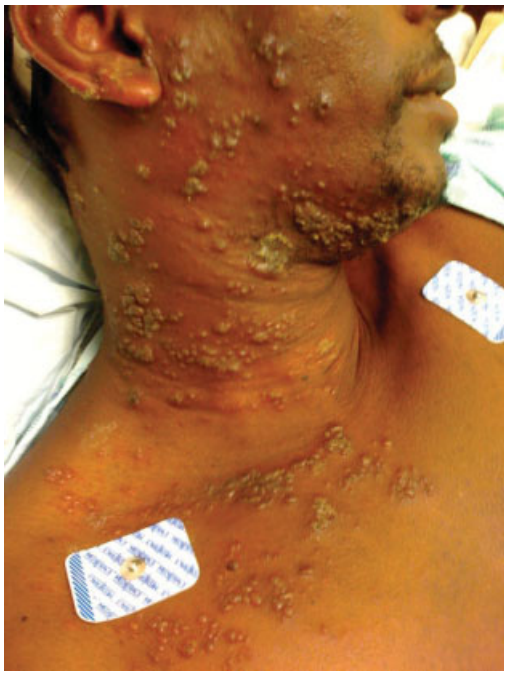

FIGURE 1. Rash composed of grouped, raised, fluid-filled vesicles with an erythematous base and honey-colored crusting.

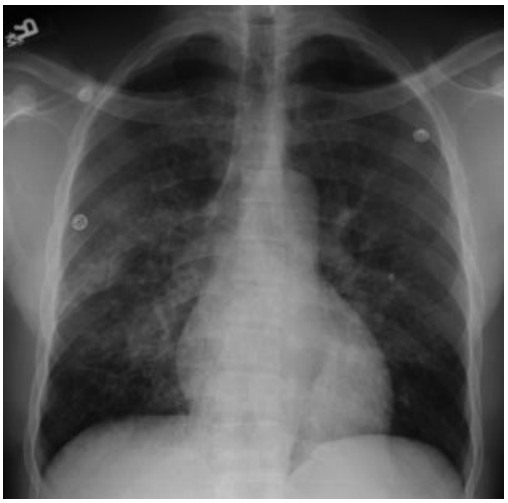

FIGURE 2. Chest radiograph showing diffuse bilateral pulmonary infiltrates.

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References

1. Yawn BP. A population-based study of the incidence and complication rates of herpes zoster before zoster vaccine introduction. *Mayo Clin Proc.* 2007;82(11):1341–1349.
2. Krause RS. Herpes zoster. http://www.emedicine.com/emerg/TOPIC823.HTM. Accessed May 2009.

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