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**Figure 1.** Skin lesion, bilateral legs.

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A 44-year-old woman presented with a rash on her bilateral lower extremities, abdomen, and face. The lesions started 1 week ago in her lower extremities and spread proximally, sparing mucous membranes. Five days ago, she sought medical care for the rash and was prescribed bactrim, which yielded no improvement. The patient endorsed cocaine use for the past week. On physical examination, the patient had multiple stellate, purpuric macules, and plaques with central necrosis and erythematous borders (Figures 1 and 2). Initial studies included an absolute neutrophil count of  $270/\text{mm}^3$ .



**Figure 2.** Skin lesions, abdomen. Used with permission of Kenny Banh, MD, Department of Emergency Medicine, University of California San Francisco-Fresno, Fresno, CA.

*For the diagnosis and teaching points, see page 311.*

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any way related to the subject of this article that might create any potential conflict of interest. The authors have stated that no such relationships exist. See the Manuscript Submission Agreement in this issue for examples of specific conflicts covered by this statement.

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## IMAGES IN EMERGENCY MEDICINE

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### DIAGNOSIS:

*Vasculopathic purpura and neutropenia caused by levamisole-contaminated cocaine.* The characteristic skin lesions, neutropenia, and temporal association with cocaine use warranted investigation for levamisole exposure. Biopsy showed extensive thrombotic vasculopathy. The patient's urine and serum were studied with a liquid-chromatography tandem mass spectrometry method and were found to be positive for levamisole in both specimens.

Levamisole is an antihelminthic with immunomodulatory properties that is rarely used in humans. For an unknown reason, levamisole is now found in as much as 70% of cocaine in the United States.<sup>1</sup> It has been implicated in cases of neutropenia and agranulocytosis across North America.<sup>2-4</sup> Levamisole also causes vasculopathic purpura. Skin biopsy yields a range of vasculopathic changes, including thrombotic vasculitis, leukocytoclastic vasculitis, or vascular occlusion.<sup>5</sup> Cases of these lesions occurring in association with cocaine use have been reported.<sup>6</sup> To our knowledge, this case is the first with laboratory verification. No particular treatment is necessary besides cessation of levamisole exposure. However, the characteristic skin lesion serves as a harbinger for levamisole exposure and its more serious adverse effect of neutropenia.

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