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# Levamisole-induced vasculitis with ecchymosis and necrosis syndrome from contaminated cocaine

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#### **DESCRIPTION**

A 43-year-old-man presented with 1-month history of progressive erythematous painful lesions over multiple sites involving bilateral lower extremities, trunk and pinnae. He was a chronic cocaine user; last use was 3 days prior to presentation. On examination he had bilateral large retiform, geometric, dusky, erythematous, tender plaques with central necrosis and ecchymosis over aforementioned areas (figures 1 and 2). There was significant necrosis of helical rims of pinnae. (figure 3). He had leucopenia with neutropenia on complete blood count. Perinuclear-antineutrophil cytoplasmic antibody (p-ANCA) was positive. Urine drug screen was positive for cocaine and levamisole was detected by gas chromatography technique in the patient's urine. Biopsy of skin lesions showed acute necrotising neutrophilic vasculitis involving small and medium vessels in both dermis and subcutaneous tissue with fibrin thrombi and fibrinoid necrosis. A diagnosis of levamisole-induced vasculitis with ecchymosis and necrosis syndrome was made from contamination of cocaine with levamisole. Levamisole has been identified as a contaminant in 70% of cocaine seized in the USA. The prevalence of levamisole as a contaminant of cocaine may be related to its similar appearance to cocaine and stimulant effects from dopamine release. It is detected by gas chromatography mass spectroscopy technique in urine specimens.2 Toxicity causes cutaneous, neurological haematological and manifestations.



Figure 1 Skin ecchymosis and retiform purpurae.



Figure 2 Skin necrosis.



Figure 3 Necrosis of helical rims of pinnae.

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The spectrum of cutaneous involvement includes development of purpuric papules, ecchymosis, skin necrosis leading to ulceration and secondary infection. Bilateral ear involvement, especially helical margins, is seen in the majority of patients.<sup>3</sup>

### **Learning points**

- ▶ Identify complications of cocaine use.
- Differential diagnosis of causes for necrotising vasculitis.

Competing interests None.

Patient consent Obtained.

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