

Painful purpura associated with exposure to levamisole-adulterated cocaine

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DESCRIPTION

A 56-year-old man presented with a 2-day history of a painful rash. Examination revealed necrotic retiform purpura over the trunk and extremities (figure 1). Laboratory testing was notable for leucopenia (3.2 cells/ μ L) and positive peripheral anti-neutrophil cytoplasmic antibody (p-ANCA) with antimyeloperoxidase specificity (3.5 U, normal <0.4 U). Skin biopsy showed microvascular thrombosis and fibrinoid necrosis. On questioning, the patient endorsed regular cocaine use.

The patient was diagnosed with levamisole-induced vasculitis. He was discharged after workup but was readmitted a week later with wound superinfection requiring antibiotic therapy, surgical debridement and skin grafting. He recovered well postoperatively with complete resolution of his wounds at 2-month follow-up.

Levamisole is a veterinary antihelminthic previously used as an immunomodulator and cancer adjuvant prior to its withdrawal in 1999 from US markets due to toxicity. In the early 2000s, levamisole began to be used as a cutting agent in cocaine; by 2010 it was detected in up to 80% of cocaine samples seized in the USA.¹ Use of levamisole-containing cocaine has been associated with agranulocytosis, small vessel cutaneous vasculitis and pauci-immune glomerulonephritis.¹ Levamisole-induced vasculitis classically

manifests as painful purpura with a predilection for the ears, cheeks, trunk and extremities. Laboratory findings may include leucopenia, high titre ANCAs (p-ANCA and c-ANCA), positive antiphospholipid antibodies and low antinuclear antibody (ANA) titres.² Diagnosis is typically established clinically and may be confirmed by skin biopsy.³ Rapid symptom resolution can be expected in most cases if cocaine is avoided, although complications such as wound superinfection may delay resolution.

Learning points

- ▶ Use of levamisole-containing cocaine has been associated with agranulocytosis, small vessel cutaneous vasculitis and rarely pauci-immune glomerulonephritis.
- ▶ Levamisole-induced vasculitis classically manifests as rapidly progressive, painful retiform purpura on the ears, cheeks, trunk and extremities.
- ▶ Supportive care is the mainstay of treatment, although superinfection is a concern and should be treated early if suspected.

Contributors CY and MM conceived the report; CY and XL contributed to data collection; CY and XL drafted the manuscript and MM was responsible for critical revision and final approval.

Competing interests None declared.

Patient consent Obtained.

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Figure 1 Necrotic retiform purpura over the trunk and extremities.



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