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Vasculitis in a cocaine user

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DESCRIPTION

A 45-year-old woman was admitted for a painful purpuric rash on her cheeks, ears and legs, which began after a 3-day period of heavy crack cocaine use. She reported a similar rash 3 years ago and a skin biopsy at that time revealed thrombi in the small blood vessels. However, serological testing was not consistent with any specific known diagnosis and she was discharged when her rash improved.

On physical examination, retiform purpuric lesions were seen across both cheeks (figure 1), with prominent lesions on the lobes and helices of both ears (figure 2), and across both legs. Laboratory testing revealed leukopaenia (3 400 cells/µl) with a borderline low granulocyte count (1 500 cells/µl), positive antimyeloperoxidase antineutrophil cytoplasmic antibodies by ELISA (1.3 U, normal <1.0 U), a low C4 complement component (12 mg/dl, normal 16–56 mg/dl) and the presence of a lupus anticoagulant. Given the characteristic clinical and laboratory findings, cutaneous vasculitis associated with levamisole from adulterated cocaine was diagnosed.

Levamisole is an immunomodulatory agent but its medical use in humans was discontinued due to adverse effects including leukopaenia, agranulocytosis and a characteristic cutaneous small-vessel vasculitis with autoantibodies. For reasons largely unknown, it has emerged as a common cutting agent for cocaine,[1] leading to similar syndromes among cocaine users.[2 3] As the proportion of cocaine adulterated with levamisole appears to be increasing,[1] clinicians should suspect levamisole-associated vasculitis in a patient with a history of cocaine use, characteristic lesions, leukopaenia or agranulocytosis, and a pattern of autoantibodies unusual for other vasculitides.

Figure 1 Characteristic retiform purpuric lesions on both cheeks in levamisole-associated vasculitis.

Figure 2 Involvement of the helices and pinna is typical in patients with levamisole-associated vasculitis.

Learning points

- Levamisole is an immunomodulatory agent associated with a characteristic retiform purpuric rash, leukopaenia and agranulocytosis, as well as autoantibodies, including antineutrophil cytoplasmic antibodies, antinuclear antibodies and antiphospholipid antibodies in a pattern unusual for other vasculitides.
- It is increasingly found as an adulterant of street cocaine for reasons largely unknown.
- Case series have reported successful therapy with topical emollients and corticosteroids as well as systemic corticosteroids and immunosuppressants such as cyclosporine, but optimal treatment is unknown.

Competing interests None.

Patient consent Obtained.

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