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Retiform Purpura Caused by the Use of Cocaine, That Was Probably Adulterated with Levamisole

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Dear Editor:

Retiform purpura is a dermatological condition characterized by reticulated, stellate, or serpentine shaped purple lesions on the skin and mucous membranes. New, multiple cases of retiform purpura after the use of levamisole adulterated cocaine have been reported. Levamisole is an anthelmintic drug with immunomodulatory and immunostimulating properties. It has been used in humans to treat rheumatoid arthritis, cancer of the colon and nephritic syndrome in children. It was withdrawn from use in the United States in 2000 because of the risk of agranulocytosis[1].

We report the case of a 52-year-old woman receiving treatment with levothyroxine for hypothyroidism. Two days after consuming cocaine, she developed painful skin lesions with arthralgia on both wrists. Physical examination revealed plaques and papules infiltrated to touch, purpuric on the edges and necrotic in the center, with reticular and stellate lesions on both cheeks, the tip of the nose, outer left ear, and lower limbs (Fig. 1). Biopsy revealed thrombotic vasculopathy of the small and medium blood vessels in the dermis and subcutaneous cell tissue (Fig. 2). Blood tests revealed leukopenia, neutropenia, and lymphopenia. Antinuclear antibodies (ANA, titer 1 : 1.280) in anti-neutrophil cytoplasm antibodies (ANCAs) against myeloperoxidase with a p-ANCA pattern (titer, ＞100 [0～5]), and ANCAs against proteinase 3 with a c-ANCA pattern (titer, 6.8 [0～5]) were also found. Hypocomplementemia of C3 was detected. The tests for thrombosis and coagulation, serology, cryoglobulins and antiphospholipid antibodies were normal or negative. Cocaine was detected in the urine sample. The results of chest radiography and urine sediment test were normal. A diagnosis of retiform purpura resulting from the use of cocaine, that was probably adulterated with levamisole was made. She was prescribed with low dose oral prednisone. The hematological symptoms cleared 5 days later, after one month, the skin lesions had healed without sequelae.

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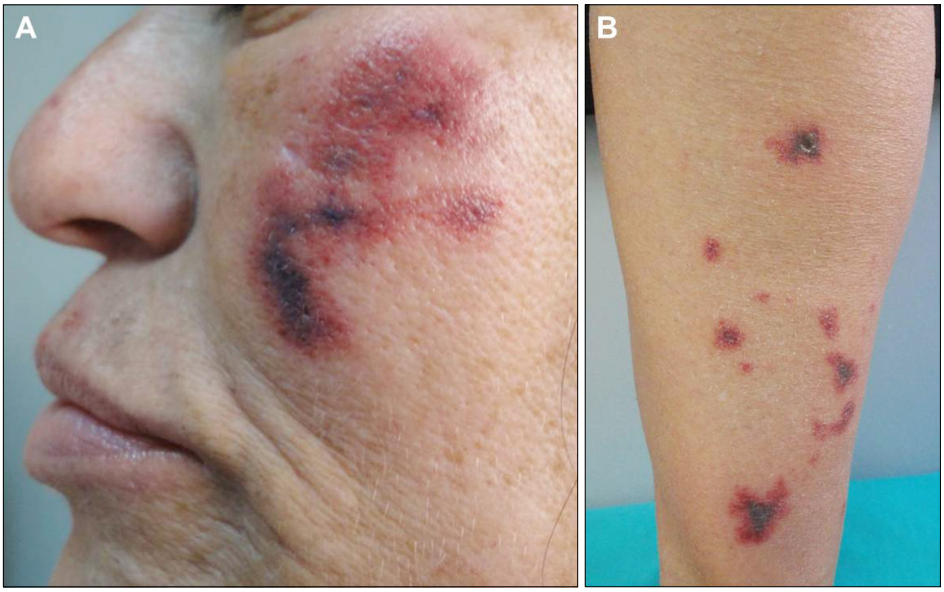

Fig. 1. (A) A reticular plaque with purpuric edges and necrotic center on the left cheek. (B) Reticular and stellate plaques with purpuric edges and necrotic center on low limbs.

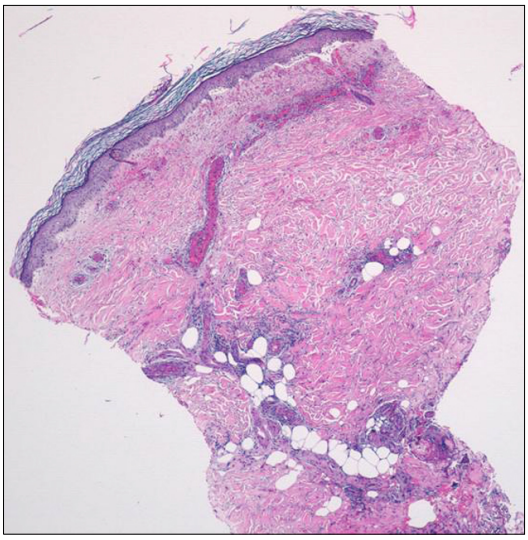

Fig. 2. Hematoxylin-eosin staining image (×10) showing thrombotic vasculopathy of the small and medium blood vessels in the dermis and subcutaneous cell tissue.

Levamisole is currently only used in veterinary medicine as an anthelmintic; however, it has recently begun to be used as an adulterant in cocaine in many countries, including Spain[2]. Levamisole poisoning should be suspected in the case of a young patient presenting bilateral cutaneous necrosis on the earlobes, cheeks, or nose, that may be accompanied with retiform purpura lesions, primarily on the legs[3]. There may also be signs of arthralgia, fatigue, and general malaise. In the literature, some cases showing convulsions, kidney failure, or pulmonary haemorrhage have also been reported. The most common alterations in laboratory tests are neutropenia, a p-ANCA pattern, and the presence of antiphospholipid antibodies. More specific immune markers include antielastase antibodies. However, to confirm the diagnosis, levamisole detection in urine by using gas chromatography-mass spectrometry is required. However, most of the reported cases, including ours, are unconfirmed. This is because of the unavailability of testing techniques[4] and the short half-life of levamisole (5.5～6 h)[5]. Two histological patterns have been documented: leukocytoclastic vasculitis and thrombotic vasculopathy. In most patients, skin lesions resolve spontaneously 2～3 weeks after stopping levamisole. However, the serological alterations may persist for up to 14 months[3].

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Localized Telogen Effluvium after Face Lift Surgery

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Dear Editor:

A 62-year-old woman presented at Kyung Hee University Hospital at Gangdong with a 2-month history of frontal and bitemporal shedding and thinning. Two months prior to visiting our clinic, she had undergone rhytidectomy at a local plastic surgery clinic. Her past medical history was not significant. There was no drug history, weight change, or chronic illness, and the patient denied any other trauma history. The physical examination revealed symmetric frontal and bitemporal thinning and decreased hair density (Fig. 1A, B). In a hair pull test, ≥10 hairs were easily pulled from around the suture line of the rhytidectomy; however, the hair pull test was negative in other parts of the scalp. On transverse sections of a 5-mm punch biopsy specimen, normal follicular density and increased numbers of telogen hair follicles were observed. Peribulbar inflammation, scarring, and hair shaft abnormality were not observed (Fig. 1C). On the basis of the clinical and histopathologic findings, she was diagnosed with telogen effluvium, which occurred after rhytidectomy. Without any treatment, the patient noted the natural recovery of hair shedding, and the regrowth of many hairs was observed around the affected areas 4 months after rhytidectomy (Fig. 2).

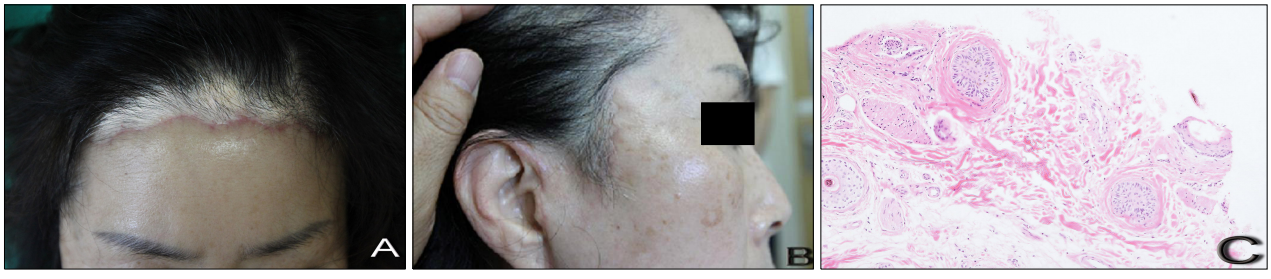

Fig. 1. (A, B) Hair thinning and a decreased hair density is observed symmetrically along the frontal and bitemporal incision lines. (C) Increased numbers of telogen hair follicles are found, and peribulbar inflammation, scarring, and hair shaft abnormality are not observed on the scalp biopsy (H&E, ×100; transverse section).

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