



DISSEMINATED NECROTIC SUPPURATIVE ULCERS AS A MANIFESTATION OF COCAINE ABUSE

Álex García Tellado¹, Carmen Lasa Teja², María Rodríguez Vidriales³, Mercedes De la Fuente Vázquez¹, Patricia Marín Oliván¹, Francisco Arnaiz Las Revillas⁴

¹ Department of Internal Medicine, Hospital Universitario Marqués de Valdecilla. Santander, Spain

² Department of Rheumatology, Hospital Universitario Marqués de Valdecilla. Santander, Spain

³ Department of Nephrology, Hospital Universitario Marqués de Valdecilla. Santander, Spain

⁴ Department of Infectious Diseases, Hospital Universitario Marqués de Valdecilla. Santander, Spain

Corresponding author: Álex García Tellado **e-mail:** agt1695@hotmail.com

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ABSTRACT

Introduction/Aims/Background: Pyoderma gangrenosum is an immune-mediated illness that can be caused by several affections, such as inflammatory bowel disease, rheumatoid arthritis, and drug use. We present a rare case of pyoderma gangrenosum induced by levamisole-adulterated cocaine. There have been few cases of this disease reported in the world. Levamisole is an anthelmintic drug used to adulterate cocaine to boost its effect. It also has immune-modulating effects causing, among others, vasculitis and dermatological problems.

Materials and Methods: Clinical case of a 46-year-old man admitted to the hospital University Marqués de Valdecilla in Santander, Spain, in August 2022. We diagnosed pyoderma gangrenosum based on clinical, analytical, and histological parameters.

Results: We report a case of pyoderma gangrenosum induced by consumption of levamisole-adulterated cocaine.

Discussion: This patient suffered from a rare and extensive immune-mediated affection with characteristic primary lesions in the form of suppurative ulcers that responded to immunosuppressive treatment. Behind pyoderma gangrenosum there may be underlying conditions such as inflammatory bowel disease, or pyoderma gangrenosum may be secondary to identifiable causes such as cocaine use as in this patient.

KEYWORDS

Pyoderma gangrenosum, Cocaine, necrotic ulcers

LEARNING POINTS

Pyoderma gangrenosum induced by levamisole-adulterated cocaine has the following features:

- History of cocaine use.
- Exaggerated skin injury occurring after minor trauma (pathergy).
- Characteristic histopathologic findings.



CASE DESCRIPTION

A 46-year-old man native from Perú was admitted to the emergency department after developing over the last 15 months multiple skin ulcerations on the scalp (Fig. 1), chest (Fig. 2), back and both legs (Fig. 3), the biggest one with an extension of 10x15x3 cm. His medical history included harmful consumption of inhaled cocaine, as well as typhoid fever and hepatitis A in childhood, with no other medical condition or active treatment.

The skin ulcers presented an important suppuration with purplish edges and necrotic plaques surrounding them. The lesions were rapidly progressing, and very painful for the patient. Pathergy was present, a phenomenon by which an exaggerated skin injury occurs after minor trauma. Laboratory tests showed elevation of acute phase reactants (C-reactive protein 16.1 mg/dl and a erythrocyte sedimentation rate of 45 mm). All microbiological serologies and autoimmune markers were negatives, except for an IgG positive hepatitis A virus.

We performed a cutaneous biopsy on an epidermal ulcer with chronic dermohypodermatitis and limited inflammatory cells but abundant fibrosis.

The negative results of all microbiological tests on this sample, even for atypical bacterial or fungal infection, along with the negative results for complementary tests, dismissed any systemic autoimmune, toxic, or traumatic apparent etiologies. Given the history of consumption of cocaine and the lesions suggestive of pyoderma gangrenosum, a bolus of corticosteroids and Infliximab was initiated with an excellent response and practical disappearance of the skin lesions with clinical improvement.



Figure 1. Suppurative skin ulceration on scalp



Figure 2. Multiple ulcerations with purplish edges on chest



Figure 3. Painful necrotic plaque on left leg

DISCUSSION

The clinical history added to the histology of this patient, guided us to pyoderma gangrenosum as a first possibility^[1]. This patient suffered from a rare and extensive immune-mediated affection with characteristic primary lesions in the form of suppurative ulcers that responded to

immunosuppressive treatment. Behind pyoderma gangrenosum there may be underlying causes such as inflammatory bowel disease, or it may be secondary to identifiable causes such as cocaine use as in this patient^[2,3]. This case is interesting not only because of the extension of the lesions, explained by the absence of previous treatment and the persistence of cocaine abuse, but also because of the low probability of the diagnosis made^[4].

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