Symmetrical drug-related intertriginous and flexural exanthema induced by Peruvian maca

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ABSTRACT

Symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) or baboon syndrome is an uncommon cutaneous drug eruption that occurs after the systemic administration of drug-related allergens. It is characterized by well-delimited erythema in the gluteal and perianal regions and involvement of other intertriginous/flexural areas, without other systemic signs or symptoms. We present a case of a 73-year-old man who developed erythematous maculopapular exanthema in flexural areas, after using a herbal medication called Peruvian maca (*Lepidium meyenii*), which has not been previously reported to cause SDRIFE.

Keywords: Drug hypersensitivity, Exanthema, Phytotherapeutic drugs, Lepidium meyenii.

INTRODUCTION

Symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) or symmetrical intertriginous and flexural exanthema related to drugs, or even baboon syndrome, first described by Andersen et al. in 1984, is a reaction after exposure to drugs, with well-defined clinical criteria and histopathological variations, presenting characteristics in common with other drug eruptions.[1] It is characterized by erythema that affects intertriginous and anogenital areas symmetrically, and by the absence of other systemic signs or symptoms.[2]

In this case report, we present a 73-year-old man, with brown skin, with a symmetrical flexural exanthema, clinically compatible with the diagnosis of SDRIFE, after ingestion of Peruvian maca (*Lepidium meyenii*), a herbal medication.

The case was submitted for analysis and approval by the institution's Research Ethics Committee (CEP), with CAAE number 59123222.3.0000.5515. In addition, the patient signed the informed consent form authorizing the report of his clinical case and the publication of his images.

CASE REPORT

A 73-year-old male patient sought medical care complaining of skin spots lasting 2 weeks. The dermatological examination revealed erythematous, slightly scaly and pruritic plaques with well-defined borders, symmetrically distributed on the face, axillary and inguinal folds, and intergluteal groove, as well as the neck and sternal region, with no association with systemic symptoms (Figures 1 and 2). He had used injectable corticosteroids prescribed by a general physician two weeks previously, with no improvement in the lesions. He denied using other medications, oral or topical, or having contact with common allergens in the last few months. The patient had arterial hypertension and had been taking losar-

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tan for years. Three months ago, he started taking Peruvian maca, a herbal medication, to improve his libido. Laboratory tests on admission were normal. Histopathological examination of the axillary lesion revealed vascular ectasia in the papillary dermis, with prominent endothelial cells, and surrounding lymphomononuclear infiltrate, in addition to the presence of leukocytes and eosinophils (Figure 3).

Given the pattern and distribution of dermatological lesions, histopathological findings, and the history of exposure to Peruvian maca concomitantly with the appearance of the skin rash, the diagnosis was a drug eruption, more specifically SDRIFE.

Treatment was started with prednisone, 1 mg/kg/day, for 14 days and an oral antihistamine, in addition to topical dexamethasone cream and an emollient. The patient was advised to stop taking Peruvian maca. There was clinical improvement and complete resolution of the skin lesions two weeks after starting treatment.

Figure 2 - Symmetrical erythematous plaques in the axillary, neck and sternal regions.

Figure 1 - Symmetrical erythematous plaques on the buttocks and back.

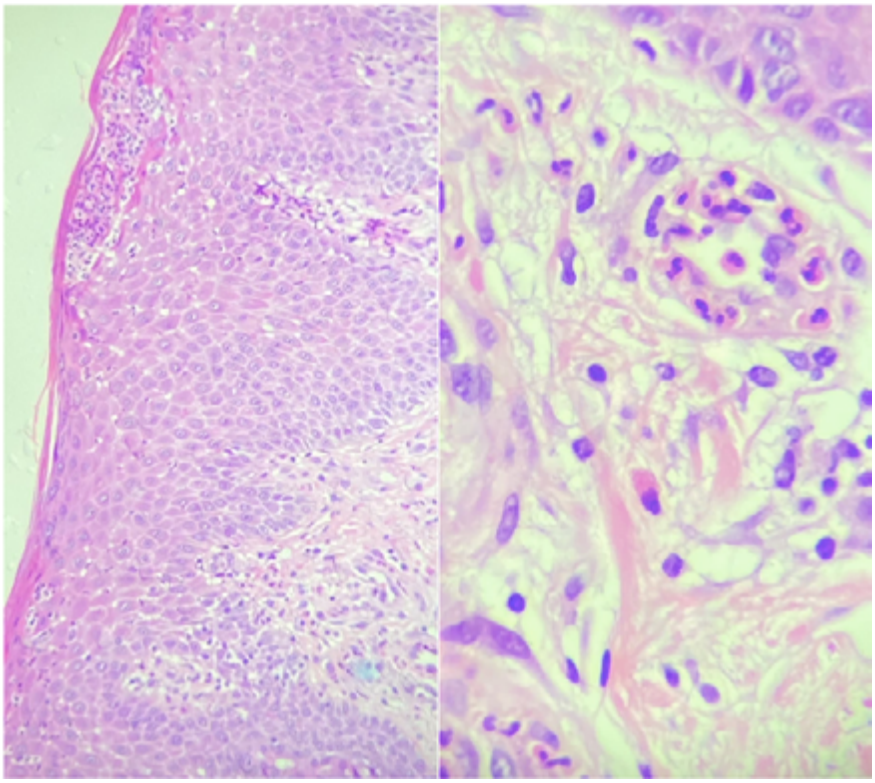

Figure 3 – Histopathology of the axillary region showing perivascular lymphohistiocytic infiltrate in the superficial and middle dermis (Hematoxylin & eosin).

DISCUSSION

In 2004, Hausermann et al. proposed the acronym SDRIFE for cases of systemic exposure to the drug, without previous skin sensitization or systemic symptoms.[1] This condition is clinically similar to the baboon syndrome, reported by Andersen et al. (1984), whose name is due to the characteristic location of the erythema in the gluteal and intertriginous regions, similar to the reddish area of the gluteal regions of baboons.[2]

Clinical criteria for diagnosis include well-defined erythema in the gluteal and perianal regions and/or V-shaped erythema in the inguinal/perianal region; involvement of at least one intertriginous/flexural area; symmetry of the affected areas and absence of systemic signs/symptoms in patients exposed to systemic medication (first dose or not), excluding contact allergens.[1] Patients may also present mucosal lesions, in addition to other symptoms and histopathological characteristics of vasculitis. The lesions may progress to generalized maculopapular rash if the causative drug is not discontinued. Antibiotics are the main triggers, especially beta-lactams, with amoxicillin standing out. To a lesser extent, chemotherapeutic, anti-inflammatory and antifungal agents may be causative.[3]

The most common histopathologic findings are vacuolization of basal cells, associated with necrotic keratinocytes and focal spongiosis, as well as lymphocytic and eosinophilic infiltration in the epidermis and dermal junction. Histopathologic patterns include interface dermatitis, spongiotic dermatitis, and psoriasiform dermatitis.[4]

The differential diagnosis of SDRIFE is broad, including inverse psoriasis, candidiasis, tinea, contact dermatitis, as well as other drug reactions, such as drug reaction with eosinophilia and systemic symptoms (DRESS) and acute generalized exanthematous pustulosis (AGEP).[5] Although the distribution pattern and morphology of the lesions, the clinical history of exposure to medications and the absence of systemic signs/symptoms and laboratory abnormalities favor the diagnosis of SDRIFE, histopathological analysis is mandatory to exclude other conditions.

Lepidium meyenii, also known as Peruvian maca, is a plant native to Peru, used as a dietary supplement and for numerous conditions, such as erectile dysfunction, decreased libido, hormonal dysfunctions and mood swings.[6] As it is a herbal medication, a medical prescription is not necessary. In the review of the researched literature, in more than 100 described cases of SDRIFE, no reports of *Lepidium meyenii* as the causative agent were found.

The pathophysiology of SDRIFE is not fully understood, but a type IV hypersensitivity reaction related to T lymphocytes appears to be involved.[4] As for the flexural predilection of the rash, it is believed to be due to the concentration of the allergen produced by sweating and occlusion. Treatment is symptomatic, with the suspension of the causative agent, and oral and topical corticosteroids lead to faster resolution of the rash.

CONCLUSION

Baboon syndrome is a rare entity. In the presence of symmetrical lesions in intertriginous areas and a history of systemic medication use, it is extremely important that this diagnosis be considered. Suspension of the causative agent and supportive measures are effective, especially if the diagnosis is made early, thus avoiding the worsening of the condition, which can become generalized if the drug is continued. The case described highlights the importance of considering SDRIFE in the presence of symmetrical lesions in intertriginous areas, with a history of systemic medication use, even herbal medications.

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