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CASE REPORT

Baboon syndrome induced by ketoconazole

Ali ihsan Gulec, Esma Uslu, Elife Başkan, Gizem Yavuzcan, and Cihangir Aliagaoglu

*Department of Dermatology, Duzce Medical Faculty, Duzce, Turkey***Abstract**

A 27-year-old male patient presented with a maculopapular eruption on the flexural areas and buttocks after using oral ketoconazole. The patient was diagnosed with drug-induced baboon syndrome based on his history, which included prior sensitivity to topical ketoconazole, a physical examination, and histopathological findings. Baboon syndrome is a drug- or contact allergen-related maculopapular eruption that typically involves the flexural and gluteal areas. To the best of our knowledge, this is the first reported case of ketoconazole-induced baboon syndrome in the English literature.

Keywords

Baboon syndrome, ketoconazole, SDRIFE

History

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Introduction

Baboon syndrome, also known as drug-related intertriginous and flexural exanthema (SDRIFE), is characterized by the occurrence of a symmetric and diffuse erythematous maculopapular eruption on the flexural areas, with a V-shaped pattern on the medial thighs and diffuse erythema on the buttocks after ingestion or systemic absorption of contact allergens, such as mercury and nickel^{1–3}. The syndrome can also be induced by certain drugs in sensitized individuals^{1–3}. We report a case of a 27-year-old male patient with baboon syndrome after systemic use of ketoconazole who had been sensitized by topical administration of ketoconazole before this event.

Case

A 27-year-old male patient was examined in our outpatient clinic because of an erythematous eruption of 3–4 d duration. The lesions started on his neck and then spread to his inner thighs, flexural, axillary, and inguinal areas and buttocks (Figures 1–3). There was no fever, systemic symptoms or positive laboratory tests. Complete blood count, routine biochemistry including hepatic and renal function tests, thyroid function tests and erythrocyte sedimentation rate were within normal limits.

A skin biopsy showed a perivascular lymphohistiocytic infiltrate, with rare eosinophils in the dermis and minimal spongiosis in the epidermis (Figure 4). Previously, the patient had used a topical ketoconazole cream for four weeks because of tinea pedis and had developed exanthema two days later. There was no family or personal history of atopy.

Drug-related baboon syndrome was diagnosed based on the patient's clinical and histopathological findings.

We prescribed systemic and topical corticosteroids. After complete resolution of the lesions, we applied the European Standard Series patch test, including ketoconazole, three weeks later. The patch test was positive, confirming the diagnosis of drug-induced baboon syndrome.

Discussion

The term “baboon syndrome” was introduced in 1984 to describe a mercury-induced, maculopapular eruption in response to previous sensitization to mercury¹. The diffuse bright red erythema resembles the red bottom of a baboon. Baboon syndrome is accompanied by exanthema, with involvement of the buttocks and flexural areas after ingestion or systemic use of contact allergens or drugs in sensitized patients^{1–4}. In 2004, Hausermann et al.² proposed the term SDRIFE to differentiate cases of baboon syndrome caused by systemic use of drugs and exposure to contact allergens, such as mercury and nickel. Our patient developed a maculopapular eruption on his buttocks and axillary and inguinal regions after taking oral ketoconazole.

SDRIFE can appear within hours to days of exposure to the triggering agent or drug and may affect patients of any age and gender^{5–7}. Our patient was a 27-year-old male, and the skin eruption started two days after taking oral ketoconazole. He had previous sensitization to topical use of this agent.

Differential diagnosis of Baboon syndrome contains candidal intertrigo, viral exanthema and some other contact dermatitises, and drug eruptions that may evoke eruptions in intertriginous and flexural areas. Differential diagnosis between baboon syndrome and the others are easily made by clinical, historical, and histopathological features³.



Figure 1. Axillary involvement.



Figure 2. Antecubital involvement.



Figure 3. Inguinal involvement.

Although the most common offending drugs are beta-lactam antibiotics, approximately 50 drugs have been reported to date to cause SDIFE^{3,7,8}. The reported adverse effects of ketoconazole include angioedema, generalize eczema, fixed eruption, Jarisch–Herxheimer reaction, photosensitivity,

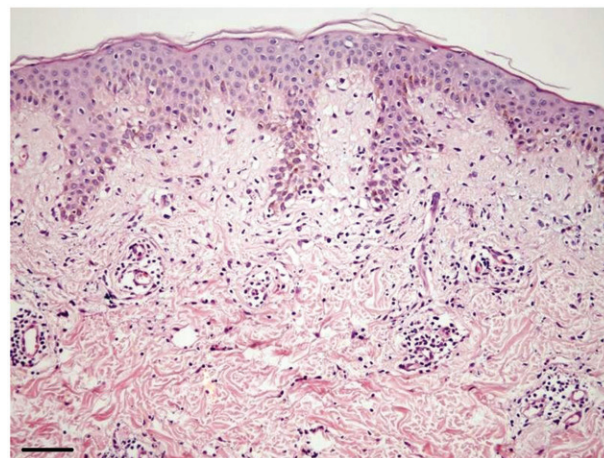


Figure 4. Perivascular lymphohistiocytic infiltrate, with rare eosinophils in the dermis and minimal spongiosis in the epidermis (H&E × 100), (scale bar = 50 μm).

pigmentation, pruritus, purpura, urticaria, vasculitis, xerosis, alopecia, trichoptilosis, nail-pigmentation, anaphylaxis, gingival bleeding, gingival hyperplasia, gynecomastia, oral lichenoid eruption, oral mucosal lesions, oral hyperpigmentation, myopathy, paresthesias, and tongue discoloration⁹. Ketoconazole has not been reported in cases of SDIFE before. To our knowledge, this is the first report of SDRIFE triggered by ketoconazole in the English literature. In common with the literature, the patient in the present case with SDRIFE had no systemic symptoms and signs and normal laboratory tests^{3,10}. In SDRIFE, the histopathological findings are consistent with chronic dermatitis^{3,4}. The histopathological findings of our patient confirmed baboon syndrome.

Baboon syndrome is generally benign^{3,4,10}. The eruption usually tends to resolve spontaneously within one or two weeks after discontinuation of the triggering drug^{3,7}. Topical or short-term treatment with systemic corticosteroids and antihistamines may be helpful for symptomatic relief^{5,6}. We prescribed topical and systemic corticosteroids for one week to our patient. His exanthema resolved rapidly within a few days.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

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