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# CASE REPORT: SYMMETRIC FLEXURAL EXANTHEMA TO DICLOFENAC

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## ABSTRACT

Symmetric intertriginous and flexural exanthema (SDRIFE) is a rare self limiting drug reaction characteristically affecting the intertriginous areas. The common offending drugs are aminopencillins, beta lactam antibiotics and chemotherapeutic agents.

Here we report a 68 year old male who developed well defined symmetric erosions involving bilateral axilla, upper and inner thighs and genitalia with dusky hue of the surrounding skin and mucosal lesions after twelve hours of intake of diclofenac sodium. One year later on re exposure to the same drug, he developed an exactly similar clinical picture . Patient recovered with hyperpigmentation during both the episodes on withdrawal of the offending drug and administration of systemic steroids. To the best of our knowledge, this is the first report of recurrent SDRIFE to diclofenac sodium with unusual features of erosive lesions ,mucosal involvement and the striking resemblance to fixed drug eruption.

**Key words:** Symmetric intertriginous and Flexural exanthema, Fixed drug eruption, Diclofenac sodium.

## INTRODUCTION

Drug reactions are often a diagnostic enigma which present with various morphological patterns mimicking other dermatosis. Symmetric intertriginous and flexural exanthema (SDRIFE) is a rare self limiting drug reaction characteristically affecting the intertriginous areas seen predominantly in middle aged males [1]. Here we report a patient who developed recurrent episodes of SDRIFE following intake of diclofenac, which subsided with residual hyperpigmentation mimicking fixed drug eruption (FDE).

**Case report**

A 76-year old male presented with redness and erosions affecting both axillae , upper and inner thighs and genitalia of two days duration without any constitutional symptoms. There was no personal or family history of drug reactions. The patient gave a history of low back ache following a trauma one week back. There was no history of any topical applications. But the patient had taken four tablets of diclofenac sodium in the past two days. Twelve hours after the first dose of diclofenac, intense erythema appeared over the axillae, groins and genitalia, which then progressed to form bullae that later ruptured. Dermatological examination revealed well demarcated erosions involving bilateral axilla, upper and inner thighs and genitalia with dusky hue of the surrounding skin (figure 1a, b, c). There was erosions and crusting of lips and oral mucosa. Complete hemogram, peripheral smear, absolute eosinophil count, liver and renal function tests, chest radiography and ultrasound abdomen were within normal limits. Biopsy from the thigh lesion revealed liquefactive degeneration of the basal cell layer and an inflammatory infiltrate in the upper dermis (figure 2a, b). The patient was diagnosed as SDRIFE due to diclofenac and was advised to avoid the drug. He was treated with 30mg of prednisolone daily for three days tapered over 2 weeks. He showed dramatic improvement with complete resolution of symptoms in 2 weeks time but with residual hyperpigmentation.

One year later he came back to us with similar lesions involving both axillae, groins and genitalia however of less intensity(figure 3a,b). The patient gave a history of taking a single dose of diclofenac just prior to the eruption. The skin lesions responded to systemic steroids and healed leaving hyperpigmentation.

## DISCUSSION

The term SDRIFE or symmetrical drug related intertriginous and flexural exanthema has recently replaced the old and ethically problematic term “baboon syndrome” (BS), a specific skin eruption resembling the red gluteal area of baboons after systemic exposure to contact allergens such as mercury and nickel [1]. A similar reaction pattern can be precipitated by systemically administered drugs like aminopencillins, beta lactum antibiotics, chemotherapeutic agents and radiocontrast media. For most of these causative drugs, prior cutaneous sensitization or possible cross-sensitization has not been observed [2]. The usual

latent period between onset of drug intake and onset of symptoms vary from hours as in our patient to 2 days, though longer intervals have been documented [3] [4]. Flexural predilection has been explained in SDRIFE due to the collection of the causative agent in eccrine or apocrine glands, or increased temperature or friction. Another postulate is a recall phenomenon eliciting a T-cell mediated, delayed type hypersensitivity reaction in areas of prior dermatitis. Recently, a novel pathological mechanism, the pi concept (pharmacologic interaction with immunoreceptors) has been suggested to be involved in the direct binding of drugs noncovalently to a fitting T-cell receptor without prior metabolism and therefore reactions occur on first exposure to a drug [5].

Hausermann et al. have proposed 5 diagnostic criteria for SDRIFE: 1) exposure to a systemically administered drug either at the first or repeated dose (excluding contact allergens); 2) sharply demarcated erythema of the gluteal/perianal area and/or V-shaped erythema of the inguinal/perigenital area; 3) involvement of at least one other intertriginous/flexural localization; 4) symmetry of the affected areas; and 5) absence of systemic symptoms or signs all of which were satisfied by our patient. Bullous lesions superimposed on erythema leading to erosions as occurred in our case has been previously reported in SDRIFE [6]. Other skin manifestations reported include papules and pustules over the flexural exanthema, coexistent maculopapular rash on other areas or targetoid lesions on palms and soles. The involvement of face and mucosa has been rarely reported [7].

The two latter features in the criteria distinguish SDRIFE from other drug reactions like DRESS (Drug rash with eosinophilia and systemic symptoms), TEN (Toxic epidermal necrolysis) and AGEP (Acute generalised exanthematous pustulosis). FDE (Fixed drug eruption) usually appears as a solitary or multiple well circumscribed, erythematous macules or plaques with or without bulla and these lesions typically recur at the same sites with each administration of the causative drug, and on discontinuation resolve leaving hyperpigmentation. The most commonly affected sites are the lips, palms, soles, glans penis, and groin areas [8]. The presence of bullous lesions with subsequent erosions, residual hyperpigmentation, mucosal involvement and typical recurrence at the same site in our case resembled FDE, but the classical symmetry of lesions involving the flexures was a distinguishing feature.

A single case of SDRIFE with overlapping features of FDE has been reported with amoxycyllin. The overlap could be due to the common IVc type of delayed hypersensitivity reaction involving CD4+ and CD8+ cells in both SDRIFE and FDE [9].

A rare nonpigmenting form of FDE is known to occur as symmetrical, large, erythematous lesions on the buttocks and the major flexural and intertriginous areas mimicking SDRIFE [10].

Histology of SDRIFE is variable and nonspecific. Commonest histology observed is superficial perivascular inflammatory infiltrate typically composed of lymphocytes or eosinophils. Kerainocyte necrosis with interphase dermatitis resembling erythema multiforme has been documented earlier. Delayed intradermal, patch and lymphocyte transformation tests have yielded variable results. Controlled oral provocation test is the most reliable diagnostic aid, but has to be performed cautiously for fear of severe reactions. But our patient developed less severe reaction on second exposure, probably due to the rapid withdrawal of the culprit drug.

SDRIFE is a self limiting condition and simple withdrawal of the culprit drug achieves resolution in 2-3 weeks. Treatment is often symptomatic, though topical or systemic steroids may hasten recovery as in our case. [3]

We report this case to highlight occurrence of SDRIFE mimicking FDE induced by diclofenac which has not been reported earlier. The common features shared by both the condition raises a question, could SDRIFE be a flexural variant of FDE.

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