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Original Research Paper

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SYMMETRICAL DRUG RELATED INTERTRIGINOUS AND FLEXURAL EXANTHEM:A CASE REPORT AND REVIEW OF LITERATURE.

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ABSTRACT SDRIFE (Symmetrical Drug Related Intertriginous and Flexural Exanthem) aka baboon syndrome, is a form of systemic contact dermatitis characterized by symmetrical drug eruption over the gluteal and intertriginous areas. It is a benign and self-limiting condition without any systemic involvement. In this article, we report a case of Symmetrical Drug Related Intertriginous and Flexural Exanthem along with a review of literature.

KEYWORDS : Symmetrical, Drug related, Intertriginous, Flexural, Exanthem, Benign, Drug rash.

INTRODUCTION:

In the year 1984, Anderson et al[1] described an eruption pattern by certain allergens like ampicillin, nickel and mercury .This was named "baboon syndrome" because of the very characteristic well demarcated, bright red eruptions, noticed principally on the buttocks & genital region very similar to that of the red bottom of the baboon and hence the name, SDRIFE (Symmetrical Drug Related Intertriginous and Flexural Exanthem) aka baboon syndrome.

Case Report:

An 85 years old female was brought with the complaints of multiple skin lesions over her periorbital region, neck, axilla, groin, gluteal cleft and thigh. The patient had a history of fall in the bathroom with injury to her hip and shoulder following which she was admitted to a nursing home where she was treated with certain drugs (the exact drug history could not be elicited probably NSAIDS and antibiotics)following which she started developing the lesions over her body .

O/E :Multiple erythematous, purpuric, well defined plaques of varying sizes seen over both periorbital regions, neck, axilla, groin, gluteal cleft and inner thighs (Figure 1, figure 2, figure 3, figure 4). Oral mucosa was normal in appearance. The patient is a known case of bronchial asthma due to which she had dyspnea apart from which there were no other systemic symptoms. Involvement of more than two flexural areas (periorbital regions, neck, groin, gluteal cleft and axilla) without any systemic involvement attributable to the drug satisfies the criteria for SDRIFE (Symmetrical Drug Related Intertriginous and Flexural Exanthem) as shown in table 2. The patient was managed symptomatically with emollients and topical corticosteroids.

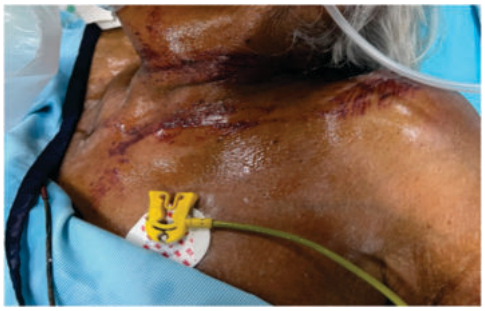

Figure 1 shows erythematous, purpuric plaque over the neck.

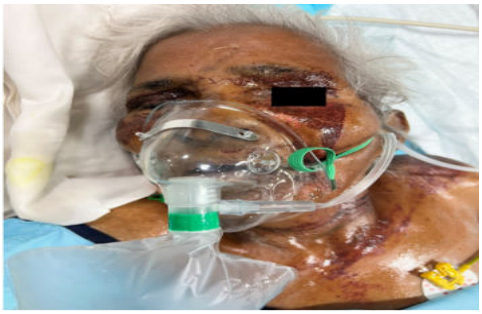

Figure 2 shows erythematous, purpuric, well defined plaques in the periorbital region.

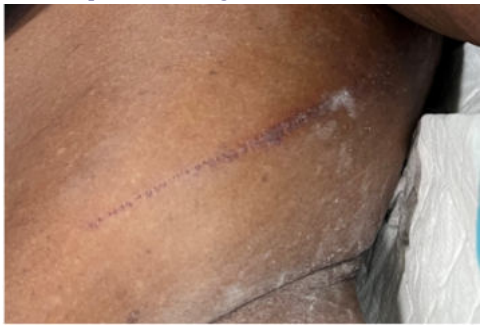

Figure 3 shows a linear erythematous, purpuric plaque over the medial aspect of the right thigh.

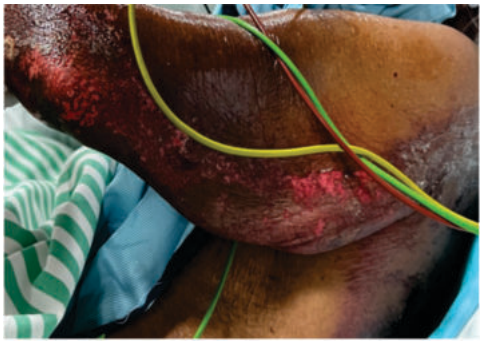

Figure 4 shows a diffuse erythematous, purpuric plaque over the axilla extending to the arms.

DISCUSSION:

SDRIFE (Symmetrical Drug Related Intertriginous and Flexural Exanthem) aka drug related baboon syndrome. The common medications associated with baboon syndrome are given in the table 1:

Table 1: Shows common drugs associated with SDRIFE.

Antibiotics (beta-lactam): Amoxicillin, ampicillin, amoxicillin/clavulanic acid, pivampicillin, penicillin V, ceftriaxone, cefuroxime, cephalexin
NSAIDS : Aspirin, ibuprofen, paracetamol, celecoxib, etoricoxib, mefenamic acid, naproxen
Antibiotics (Non beta-lactam): Clindamycin, roxithromycin
Corticosteroids: Deflazacort
Radiocontrast: Barium sulfate, iomeprol, iodine, bromide
Monoclonal antibodies: Cetuximab, glembatumumab vedotin
Psychopharmaceuticals: Risperidone, ethyl loflazepate
Other drugs: Allopurinol, cimetidine, hydroxyurea, heparin (intravenous), IVIG (intravenous human immunoglobulins), mitomycin C, oxycodone, pseudoephedrine, terbinafine, valacyclovir.

It is characterized by symmetrical drug eruption of the gluteal region, thighs, and other intertriginous areas (axillae, knee, elbows, neck) which can present commonly in the form of erythema or maculopapular rash. Other clinical manifestations in the form of bullae, purpura, papules and purpura have also been reported. It is a benign and self-limiting condition without any systemic involvement .The term was first proposed by Hausermann[2] et al to signify a spectrum of involvement beyond the gluteal region .There is no age predilection. It is said to be more common in men than in women. It is said to be a type IV delayed hypersensitivity reaction[3] to the causative drugs evidenced by occasional patch tests and an infiltration of CD4 + T cells in the dermis .The peculiar distribution of the lesions in this condition is hypothesized to be due to the preferential migration of activated memory T cells to the sites which may be due to a phenomenon better known as the "recall phenomenon" due to a recall of any form of dermatitis like diaper dermatitis, contact dermatitis to any allergen or an irritant in the past in the same area. SDRIFE can also occur without any prior skin sensitization or any cross reactivity to a known contact allergen as being explained by the p-I concept (pharmacological interactions with immune receptors)[6]. SDRIFE can present after a latency of few hours to few days. SDRIFE can be diagnosed clinically based on certain diagnostic criteria as given in table 2:

Table 2 shows the diagnostic criteria for SDRIFE.

S.No	DIAGNOSTIC CRITERIA
1	History of systemic drug intake either after first or subsequent dose (excluding contact allergens) prior onset
2	Well demarcated erythema of gluteal region/V-shaped erythema of the inguinal or peri-genital area.
3	Involvement of at least one of the other intertriginous/flexural areas.
4	Symmetry of the involved areas.
5	Absence of systemic symptoms and signs.

Histopathology of SDRIFE is non-specific. The histo pathological findings include superficial perivascular lymphocytic infiltrate which also includes neutrophils and eosinophils, spongiosis and vacuolar degeneration of basal cells[4]. It should be differentiated from other conditions affecting the intertriginous areas which include inflammatory dermatosis like contact dermatitis, inverse psoriasis and Hailey-Hailey disease, other conditions which have infectious etiologies like intertrigo and tinea cruris, other drug induced reactions like acute generalized exanthematous pustulosis (AGEP) and chemotherapy associated toxic erythema, chemotherapeutic reactions like neutrophilic eccrine hidradenitis or eccrine squamous metaplasia .Patch test is positive on an average in about half of the population affected with SDRIFE and oral provocation test is positive in majority i.e. 80 % of the population affected with this condition. Treatment is usually symptomatic and the condition usually improves on the withdrawal of the culprit drug and also it should be taken care that the culprit drug is avoided in the future as well .Topical and systemic corticosteroids can help in fast healing. Anti-histamines can be prescribed if itch is present[5].

CONCLUSION :

SDRIFE is a distinct type of drug reaction which is usually misdiagnosed pertaining to the fact that it's a very rare condition and minimal number of cases has been documented in the literature so far. Treatment is usually symptomatic and withdrawal of the culprit drug is necessary.

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