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Case Study *Psoriasis*

Steroid Induced Erythrodermic Psoriasis In A Child: A Rare Case Report

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ABSTRACT

Psoriasis is an uncommon dermatosis in young children with about 1/3rd of all patients having onset of disease in the first or second decade of life.[1] Psoriatic erythroderma is very rare condition in children. Erythrodermic psoriasis is a severe cutaneous disorder, which may pose diagnostic and therapeutic challenges. Non-bullous ichthyosis, atopic dermatitis, seborrheic dermatitis, pityriasis rubra pilaris, infections, metabolic disease and drug reaction may cause erythroderma.[2-4] The therapy should be given after making the correct diagnosis. Here by, we present a case of 3 year old boy with Psoriasis, who developed erythrodermic psoriasis after an abrupt discontinuation of systemic corticosteroids.

Keywords: Erythrodermic psoriasis; Corticosteroid; Psoriasis; Children.

INTRODUCTION

Erythroderma is an uncommon, potentially life threatening condition, which has many causes including uncontrolled psoriasis. The Erythroderma is characterized by generalized erythema of the skin that frequently involves more than 90% of body surface area.[5-7] Acute erythroderma can lead to complications such as water-electrolyte imbalance, hypothermia, cardiac failure and secondary infections.[5,8] In children, erythroderma can be caused by multiple factors. The more common ones being Congenital Non-Bullous Ichthyosis, Lamellar Icthysosis, severe Atopic Dermatitis etc.[2-4] However psoriasis can present as erythroderma and may be a diagnostic challenge to the clinician.

CASE REPORT

A three years old boy, presented with psoriatic plaques in dermatology outdoor department. On examination, there were psoriatic plaques with few pustular lesions over trunk.[fig 1] Patient was put on conservative management and was sent back home. Patient didn't report for follow up. Then after one month patient again came to out-patient department with generalized erythema and scaling all over the body. On asking, his parents gave history of multiple injections of dexamethasone from outside with some improvement than they stopped injections. After few days of stopping the injections the child developed redness and scaling all over the body. Patient was born out of non-consanguineous marriage. There was no history of bullous lesions at birth or thereafter. On examination, There was generalized erythema and scaling involving whole body.[fig. 2] Scalp was also involved with thick scaly plaques and erythema.[Fig 3] Mucous membrane

and nails were normal. The heamatological investigations were within normal limit. The face and abdomen of the child were swollen. Height and weight were within normal range. The rash was erythematous and exfoliative with significant scales accompanied by pruritis, burning pain and fever with shivering. There was no mucous membrane involvement. A punch biopsy was obtained revealing erythrodermic psoriasis, based on clinical pathological correlation a diagnosis of erythrodermic psoriasis was made. The patient was treated with intravenous fluids, antibiotics, antipyretics and tablet methotrexate, resulting in significant improvement in erythema as well as rash. Patient was put on tab Methotrexate 2.5mg once a week. Follow up was done. Patient showed much improvement after 12.5mg cumulative dose and asked to come for regular follow up.[Fig 4]

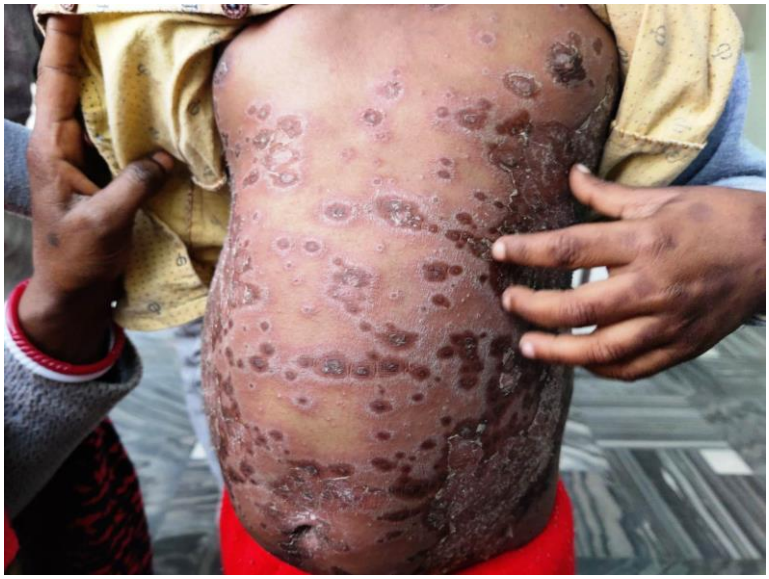

Fig 1:- psoriatic plaques with few pustular lesions over trunk

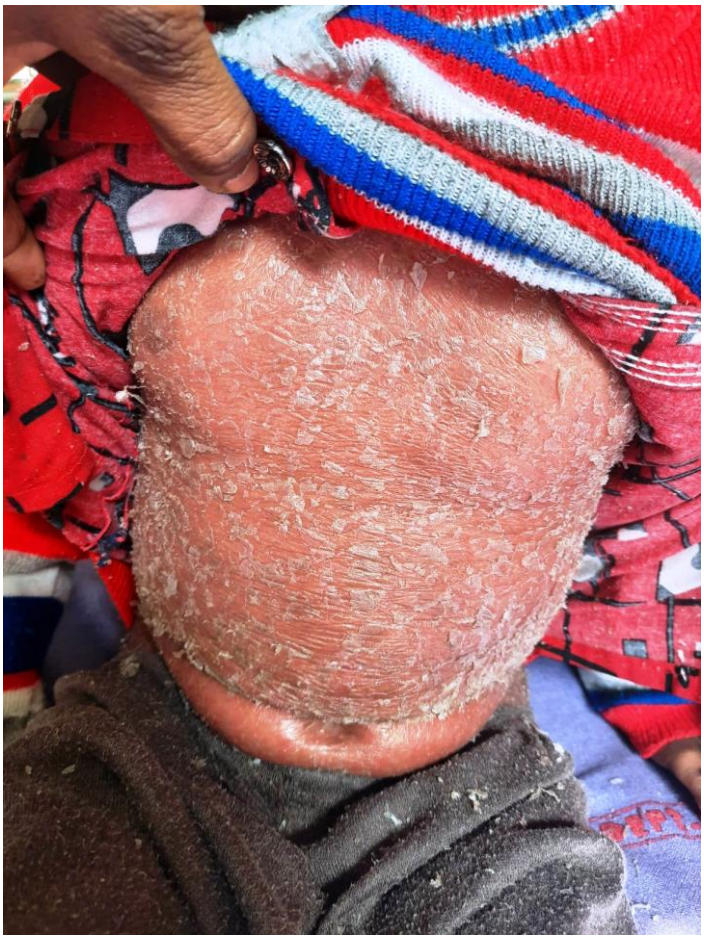

Fig 2:- generalized erythema and scaling involving whole body

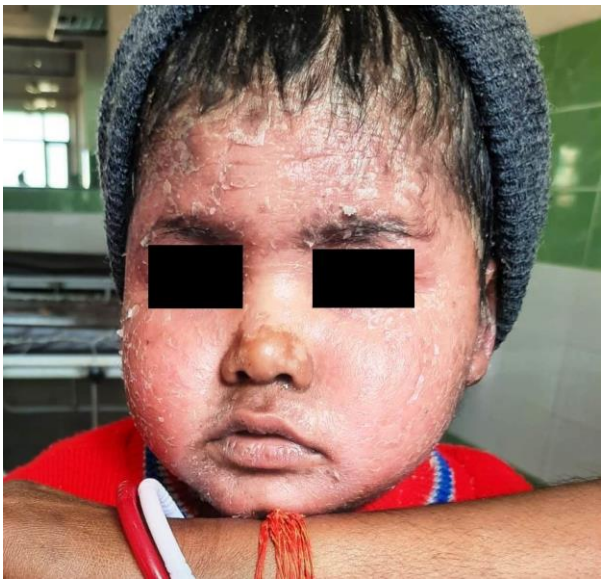

Fig 3:- Scalp showing thick scaly plaque and facial erythema.

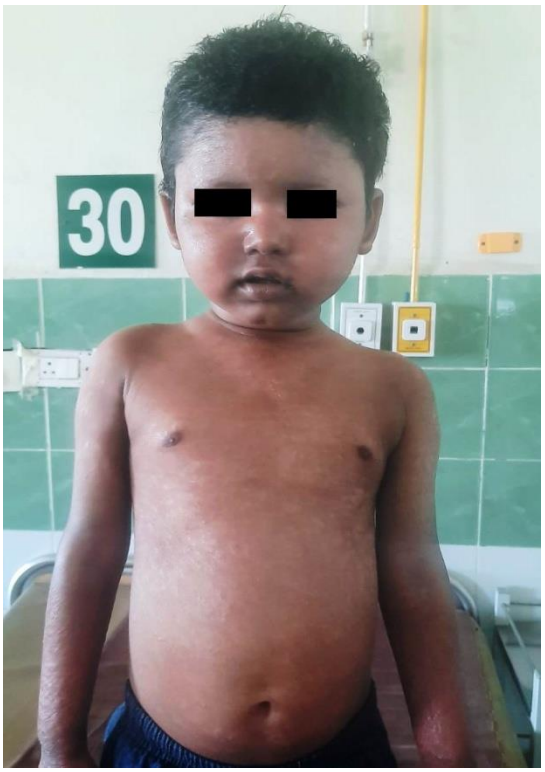

Fig 4:- Post treatment

DISCUSSIONS

Erythroderma in adult has been studied extensively but in children this condition is very rare so very few studies available in literature. Various pathologies had been reported in childhood erythroderma like infections, Icthysosis, atopic eczema, seborrheic dermatitis and idiopathic.[9] Staphylococcal Scalded Skin Syndrome (SSSS) and candidiasis are the common causes among infective etiology. Icthysosis erythroderma is mainly contributed by Non-Bullous congenital Icthysosis. Atopic dermatitis leading to erythroderma is also a challenging disease in children. In such cases, positive family history of atopy (hay fever, asthma, allergic rhinitis) is characteristic. Infantile seborrheic dermatitis starts as an inflammatory, yellowish greasy scale over scalp and intertriginious areas.[10] Erythroderma with alopecia is also indicative of metabolic causes like biotin deficiency and citrullinemia.[11] Psoriasis is a confusing clinical diagnosis in the pediatric population. Clinically the most common type is plaque type psoriasis localized to flexure, guttate psoriasis, psoriatic arthropathy followed by pustular psoriasis and erythrodermic psoriasis.[12] Erythrodermic psoriasis is usually manifested as redness and scaling of more than 90% body surface area and may not be associated with classical lesions of psoriasis putting the clinician in a diagnostic dilemma. Erythrodermic psoriasis in

children is confused with Non-Bullous Icthyosis, SSSS, Bullous icthyosis and severe atopic dermatitis. [10]

It can be differentiated from other causes by proper history taking and histo-pathological examination (HPE). In this case, the evolution process of disease morphology, detailed history taking and HPE examination helped in making a diagnosis of Erythrodermic Psoriasis. It is rare to find in literature that steroids are responsible for development of Erythrodermic Psoriasis, so here is a rare case report of steroid induced Psoriatic Erythroderma. Although erythroderma is a clinical diagnosis but some cases require extensive workup.

The treatment of erythroderma in children consists of supportive management in the form of fluid and electrolyte balance, maintenance of body temperature and strict aseptic environment. The child was given supportive treatment and systemic treatment in the form of tab methotrexate and responded well to the treatment.

CONCLUSION

Childhood psoriasis represents a special challenge to dermatologists. Besides proper treatment of the disease considering the clinical presentation and age of patient, management should include supportive care and consider issues like psycho social stigmas.

Declaration of patient consent

the authors certified that they have obtained all appropriate patient consent regarding images and other clinical information to be reported in the journal.

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CONFLICT OF INTEREST

There are no conflicts of interest.

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