THE RISING MENACE OF STEROID ABUSE CASCADEING FROM TINEA INCOGNITO TO ERYTHRODERMA

Santoshi Mahadev Naik1, Sushruthi G. Kamoji2, Jayashree Nayak3

12nd Year Postgraduate Student, Department of Dermatology, Belagavi Institute of Medical Sciences, Belagavi.
2Senior Resident, Department of Dermatology, Belagavi Institute of Medical Sciences, Belagavi.
3Assistant Professor, Department of Dermatology, Belagavi Institute of Medical Sciences, Belagavi.

ABSTRACT

BACKGROUND
The inadvertent use of steroids in fairness creams as well as antifungal creams is rapidly rising. Though they provide some short-term benefits, they can be very detrimental in the long run. Here, we report a rare case of erythroderma which was initially diagnosed as a case of allergic contact dermatitis, then developed generalised pustulosis prompting us to consider Id reaction or pustular psoriasis. However, the biopsy revealed a dermatophyte infection which was confirmed by fungal culture from skin scrapings. The patient responded very well to systemic griseofulvin and erythroderma subsided completely.

KEYWORDS
Erythroderma, Dermatophytosis, Tinea Incognito, Steroid Abuse.


BACKGROUND
Erythroderma is an inflammatory disorder characterised by an extreme state of skin dysmetabolism that gives rise to generalised erythema and scaling.1

Dermatophytosis can be an infection of skin, nail or the hair by dermatophytes.2 Usually it presents as itchy erythematous or hyperpigmented plaques of varying sizes with central clearing. This presentation altered due to use of steroids can present as Tinea incognito. The severity and the clinical presentation of the disease depends on the species of the dermatophytosis and sensitivity of the host to the particular fungus, along with idiosyncrasies of the host.3 The host initially elicits an eczematous response, followed by allergic and inflammatory manifestations. Erythroderma due to dermatophytosis is rare.4,5

CASE HISTORY
A 34-year-old male patient presented with history of itchy skin lesions all over the body since 20 days. He gave a history of similar lesions over extremities, which were occasionally associated with crops of pustules since last 4 years. Patient gave a history of exposure to cement and had been using combination of betamethasone gentamicin cream for past 2 years. Examination revealed generalised scaling, erythema and areas of hyperpigmented plaques over abdomen, [Figure 1] hands [Figure 2] and legs. Nails showed Beau’s lines and hair was normal. He was provisionally diagnosed with Erythroderma secondary to allergic contact dermatitis (mostly cement).

Initial work-up of the patient revealed raised SGOT and SGPT, while his CBC, blood sugars, urine routine and renal function were normal. Patient was started on 1 mL of dexamethasone intramuscular injection every day. On the second day of admission, patient developed generalised pustulosis [Figure 3]. Gram staining and culture of the pus was sterile. Hence, we considered Id reaction/pustular psoriasis as differential diagnosis and single dose of 15 mg of methotrexate was given subcutaneously. Pustular lesions resolved within a day.

By the fourth day, biopsy was reported as superficial dermatophytosis. These findings were confirmed with PAS staining as well as fungal culture [Figure 4 and Figure 5].

Steroids and methotrexate were discontinued and the patient was started on oral griseofulvin 250 mg twice daily with topical ketoconazole lotion and antihistaminics. Patient improved gradually over a period of 15 days [Figure 6]. He was followed up for 2 months and there was no relapse.

Figure 1. Erythematous Plaques with Scaling Present over the Abdomen

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Corresponding Author:
Dr. Santoshi Mahadev Naik,
Room No. 404, Doctors Quarters,
BIMS, Belagavi.
E-mail: drsantoshimnkdk@gmail.com
Figure 2. Well-defined Annular Plaque present over Right Hand

Figure 3a. Pustular Lesions Developed over Abdomen (Lake of Pus Appearance)

Figure 3b. Multiple Pustules Developed over the Back

Figure 4. Histopathology of the Lesion over Back, showing Fungal Elements and Mild Spongiosis in Epidermis, Oedema and Chronic Inflammatory Cells Infiltrate

Figure 5. Periodic Acid Schiff Stain showing Many Fungal Hyphae in Corneal Layer
Figure 6a & 6b. Resolution of the Lesions with only Post-inflammatory Hyperpigmentation

DISCUSSION
The inadvertent use of topical steroids singly or in combination with various antifungal creams has led to an alarming rise in the incidence of resistant dermatophyte infections in the recent past. Use of steroids in combination with antifungal creams gives rapid symptomatic relief but the infection doesn’t resolve. It re-appears in a span of weeks again. This if treated with steroid antifungal combination leads to a vicious cycle which ultimately leads to an array of skin manifestations as a result of steroid abuse coupled with possible development of resistance to antifungals. This also leads to an altered presentation of dermatophyte infections which may be wrongly diagnosed as eczemas and can be further treated with only steroids, worsen the situation.

Extensive dermatophytosis is common in immunocompromised patients but here the patient was immunocompetent and presented with erythrodermic dermatophytosis infection which is a very rare phenomenon. This highlights the fact that there has been indiscriminate use of steroids which led to a state of erythrodema. The need of the hour is to sensitise the medical faculty about the usage of steroids in cases where they are not essential. It is also important to raise our voice against the freely available OTC combination creams of steroids which are doing more harm than good. If this is not addressed at the earliest, the day is not far that we may start seeing epidemic of dermatophyte infections.

REFERENCES