



A CLINICOETIOLOGICAL STUDY OF ERYTHRODERMA CASES FROM TERTIARY CARE CENTER.

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ABSTRACT **Background:** Erythroderma is the term applied to any inflammatory skin disease that affects more than 90% of the body surface. It is important to know correct diagnosis so that specific therapy may be initiated.

Objective: The aim of this study was to analyze the causes of the disease in patients with erythroderma.

Methods: A cross sectional study was performed in tertiary care center. Thirty cases of erythroderma diagnosed clinically in the past one year from July 2019 to July 2020 were studied.

Results: Pre-existing dermatoses, psoriasis was the most common (33.3 %) disease followed by eczema (26.6%), drug-induced erythroderma (23.3%), dermatophyte infections (10.0%), pityriasis rubra pilaris (3.3%) and pemphigus foliaceus (3.3%).

Conclusions: In all erythroderma cases cutaneous features were identical irrespective of etiology. Detailed history, clinico- histopathological examination and other necessary hematological investigations helps to establish the etiology of erythroderma which helps in further management.

KEYWORDS : Erythroderma, drug induced, pityriasis rubra pilaris, dermatophytic infections.

INTRODUCTION:

Erythroderma is a generalized inflammatory disorder of the skin manifesting with erythema and scaling affecting more than 90% of the skin surface¹. Primary erythroderma is seen on normal looking skin due to an underlying systemic disorder or because of drug reaction, while secondary erythroderma arises from a preexisting dermatosis. Incidence was 0.9 per 100,000 of population². Common clinical symptoms include fever, chills, malaise and pruritis along with peripheral edema, lymphadenopathy and secondary skin infections.

METHODOLOGY:

A cross sectional study was performed in tertiary care center. Thirty cases of erythroderma diagnosed clinically in the past one year from July 2019 to July 2020 were studied. Patients were clinically evaluated with detailed history and complete physical examination.

RESULTS:

Among thirty cases of erythroderma, the mean age of presentation was 49.2 years with male to female ratio of 3:2, showing a high male predominance. Erythema and scaling were seen in all patients followed by pruritis (41.3%), fever (23.6%) and peripheral edema (14.7%). Among the pre-existing dermatoses, psoriasis was the most common (33.3 %) disease followed by eczema (26.6%), drug-induced erythroderma (23.3%), dermatophyte infections (10.0%), pityriasisrubrapilaris (3.3%) and pemphigus foliaceus (3.3%) (Table-1)

Table No 1: Causes Of Erythroderma (N=30)

Causes	Frequency (%)
Psoriasis	10(33.3%)
Eczema	8(26.6%)
Drug-induced erythroderma	7(23.3%)
Dermatophyte infections	3(10.0%)
Pityriasisrubrapilaris	1(3.3%)
Pemphigus foliaceus	1(3.3%)

Erythrodermic psoriasis(n=33.3%) was seen in patients with pre-existing psoriasis who gave a history of irregular use of medications or stoppage of all treatment. Among 26.6% of eczematoid erythroderma, in which 3 cases were of photodermatitis and 5 cases had atopic dermatitis. Drug induced erythroderma (23.3%) was seen in patients who were on following drugs pyrazinamide, isoniazid and dapsone.



Figure No 1: Pemphigus Foliaceus



Figure No 2: Pityriasis Rubra Pilaris



Figure No 3: Dermatophytic Infection

DISCUSSION:

Erythroderma is a rare exfoliative skin disorder for which the true incidence is still unknown. The approach to the patients with erythroderma depends on previous dermatologic background. In such patients etiologic diagnosis is easy to establish. Otherwise, erythroderma remains a diagnostic challenge. Male predominance is seen in most studies with a male-to-female ratio ranging from 2:1 to 4:1 and the mean age between 40 to 60 years³. This is similar to this study where the male to female ratio was 3:2 with mean age of 49.2 years. Pruritus (43.3%) was the most common symptom present in this study, similar findings were also found in Rym et al and Akhyani et al.^{4,5}. The most common cause of erythroderma in various Indian studies include psoriasis and eczema (Table 2). The triggering factors for precipitating erythroderma in psoriatic patients are withdrawal of systemic or topical glucocorticoids, use of systemic medications like lithium and antimalarials, phototherapy burns, infection and systemic illnesses⁷.

Table No 2: Comparison Of Earlier Studies With Present Study For Etiology Of Erythroderma.

Name of disease	Akhyani et al ⁵ (n=97)	Hulmani et al ⁸ (n=30)	Mathew et al ⁶ (n=370)	Present series (n=30)
Psoriasis	27.8%	33.3%	32.7%	33.3%
Eczema	17.5%	26.6%	30.5%	26.6%
Drug-induced erythroderma	21.6%	16.6%	6.5	23.3%
Dermatophyte infections	0	0	0	3.3%
Pityriasisrubrapilaris	8.2%	3.3%	3.2%	3.3%
Pemphigus foliaceus	1%	0	1.4%	3.3%

CONCLUSION:

In all erythroderma cases cutaneous features were identical irrespective of etiology. Detailed history, clinico-histopathological examination and other necessary haematological investigations helps to establish the etiology of erythroderma which helps in further management. Hospitalization is needed for initial evaluation and treatment. Prognosis of erythroderma is dependent on underlying etiology.

Conflict Of Interest: Nil

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