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STUDY OF EXFOLIATIVE DERMATITIS

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A study of 46 cases of exfoliative dermatitis revealed peak distribution in sixth decade and very high preponderance in males (M:F=6.67:1). The highest single cause was found to be psoriasis (41.30%). Injudicious use of topical medicaments including herbal medicines and haphazard treatment were found to be the precipitating factors in 34% cases of pre-existing dermatoses. Laboratory investigations contributed little towards diagnosis except in lymphoma group; but were helpful in knowing systemic implications of the disease. Skin biopsy was found to be helpful in diagnosing underlying skin disorders in 18 cases (40.91%). Two cases (4.35%) had malignancy as the cause of exfoliative dermatitis.

Key Word: Exfoliative dermatitis

Introduction

Exfoliative dermatitis (ED) is an inflammatory disorder with erythema and scaling in more or less generalized distribution.[1] It is a symptom-complex in response to known and unknown internal or external factors.

ED has been reported to represent 1-1.5% of total skin clinic admissions.[2] It is one of few dermatological conditions requiring hospitalization, multispeciality management and skilled nursing care.

The incidence of various causes of ED is different in various series of ED studies. This study presents the findings of peculiar aetiological factors, their laboratory changes and systemic implications. The results are compared with few Indian studies that are reported.[3-6]

Materials and Methods

Forty six consecutive patients of either sex with exfoliative dermatitis attending OPD and IPD of Department of Dermatology of Sassoon General Hospitals, Pune, over a period of 30 months were included in the study. All the patients were admitted for investigations and treatment. At first, preliminary data in form of age, sex, occupation etc were noted. Then a detailed history of the illness was recorded. Special emphasis was given to history of drug treatment.

All these patients were examined in detail for cutaneous and systemic manifestations. Routine laboratory investigations were done in all patients. Special investigations like lymph node biopsy, patch test, bone marrow aspiration study etc were performed as and when required.

Results

In our study, there were 40 males and 6 females; the male to female ratio being 6.67:1. The incidence was highest in 6th decade (19.57%) followed by 3rd and 5th decade (17.39% each). The mean age was 40.93 years. Majority (60.81%) of patients had the duration of exfoliative dermatitis less than 3 months. 58.71% patients had insidious onset of the ED.

In the aetiological classification (Table I) pre-existing disorders getting generalised

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Table I. Aetiological Classification

Group	No. of Patients	Total	(%)
1) Pre-existing Dermatoses		31	(67.40)
a) Psoriasis	19		
b) Eczema			
i) *Parthenium hysterophorus* dermatitis	4		
ii) Seborrhoeic	2		
iii) Stasis	4		
c) Pemphigus	4		
2) Drugs		10	(21.74)
a) Sulphonamides	4		
b) Anti-tubercular drugs	3		
c) Dapsone	2		
d) Penicillin	1		
3) Malignancy		2	(4.35)
a) Sézary Syndrome	1		
b) Non-Hodgkin's Lymphoma	1		
4) Undetermined		3	(6.51)
		46	(100)

headed the list (67.40%), followed by drug-induced ED (21.74%), idiopathic or undetermined (6.51%) and 2 cases of malignancy (4.35%), one each of sézary syndrome and non-Hodgkin's lymphoma.

Study of various factors precipitating ED in cases of psoriasis (Table II) revealed that inadvertant use of topical medicaments was

Table II. Factors precipating exfoliative dermatitis in patients of psoriasis

Factors	No. of Patients	Total	(%)
1) Withdrawal of steroids	2	2	(10.53)
2) Systemic drugs		2	(10.53)
Salicylate	1		
Chloroquine	1		
3) Topical medications		8	(42.11)
Herbal	6		
Dithranol	1		
Ringozone	1		
4) PUVA Therapy		1	(5.26)
5) Undetermined		6	(31.57)

the commonest cause (42.11%), followed by withdrawal of systemic steroids and exposure to certain drugs (10.53%).

Among the presenting symptoms scaling of varying degree and nature was most consistent feature (100%) cases. Erythema was found in 86.95% cases. Vesicles, oozing and crusting were seen only in cases of eczema and pemphigus (17.39%). Palms and soles were involved in 39.13% cases, whereas 54.35% cases showed nail changes in form of discolouration, pitting, horizontal ridges and dystrophy. They were commonest in cases of psoriatic ED (89.47%).

Systemic examination revealed oedema in 54.35% cases and generalized lymphadenopathy in 67.40% cases. Splenomegaly and hepatomegaly were seen in 7 cases (15.21%) each. Six cases showed signs of congestive cardiac failure (13.04%) whereas only one case (2.17%) showed changes of arthropathy. Anaemia was a consistent change (80.43%). In majority of cases it was normocytic normochromic type. Leucocytosis was seen in 12 cases (26.09%). Eosinophilia (19.56%) was predominantly found in drug-induced 66.6%) or drug-precipitated (22.2%) cases of ED. PBS of Sézary syndrome showed Sézary cell.

Total proteins were found to be low in 45.65% cases. Reversal of A/G ratio occurred in 52.17% of cases. Biochemical studies were abnormal in minority of cases (17.39%). Four patients had altered liver function tests. Three of them (75%) had drug-induced ED.

Skin biopsy performed in 44 cases showed basically changes of rapid epidermal cell turnover and inflammation viz hyperkeratosis, parakeratosis, acanthosis and dermal mononuclear cell infiltrate. Munro's microabscesses were found in 4 cases of psoriasis. Changes of acantholysis were found

in 4 cases of pemphigus foliaceus. Epidermotropism and abnormal cells were seem in case of Sézary syndrome.

Lymph node biopsy was performed in 8 cases. It revealed the changes of dermopathic lymphadenopathy in six (75%) cases and diagnostic changes of malignancy in cases of Non-Hodgkin's lymphoma and Sézary syndrome.

Discussion

Exfoliative dermatitis is common after 40 years of age. Preponderant male distribution, though consistent with almost all western and Indian series of ED, has no plausible explanation. Except for drug-induced or drug-precipitated cases of ED, onset of illness was insidious.

Pre-existing skin disorder was the commonest aetiology of ED. Injudicious use of various topical medicaments including herbal medicines, household remedies and ill-formulated OTC topical creams were responsible for generalization of localized chronic skin diorder. In view of this finding we wish to highlight the point that the risk of development of ED following topical therapy with OTC products be explained to the patient in anticipation. Higher incidence of psoriasis is consistent with findings from other parts of India.[3-6] A peculiar cause was air borne contact dermatitis due to *Parthenium hysterophorus*, a weed that is common in this part of country.

In three cases of drug-induced ED who were on multidrug treatment for tuberculosis, it was difficult to single out the offending agent out of rifampicin, INH, ethambutol, thiacetazone and streptomycin.

Sézary syndrome presenting as ED is also reported from India.[6,7] No case of malignancy of internal organ associated with ED was found in our study. Though overall incidence of malignancy as a cause of ED is low, the importance of studying the so called 'idiopathic' cases in detail and re-assessing them periodically for search of malignancy cannot be overemphasized.

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