



A CLINICO EPIDEMIOLOGICAL STUDY ON ECZEMA

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KEYWORDS :

INTRODUCTION:

EczeMa is a chronic relapsing disorder characterized by itching, redness, clustered papulovesicles, oozing, crusting, scaling and lichenification⁽¹⁾. EczeMa is a group of disorder caused either due to endogenous factors (eg; atopic dermatitis, seborrheic dermatitis, discoid eczeMa, asteatotic eczeMa, lichen simplex chronicus, venous eczeMa, hand and foot eczeMa etc) and exogenous factors (eg allergic contact dermatitis, irritant contact dermatitis, photo allergic contact dermatitis etc)⁽¹⁾. Discoid eczeMa is characterized by a single, non specific morphological feature, namely circular or oval plaques of eczeMa with a clearly demarcated edge. Asteatotic eczeMa develop in dry skin usually in elderly. Photoallergic contact dermatitis is delayed type hypersensitivity reaction in response to photo antigen applied to the skin in subjects previously sensitised to the same substance. Hospital based studies have been conducted in India. Recent hospital studies in northern and southern India reported prevalence of 0.42% and 0.55% respectively.⁽²⁾ The purpose of was to evaluate the epidemiological pattern of eczeMa, clinical pattern of eczeMa and predisposing factor associated with various pattern of eczeMa.

METHODOLOGY:

An observational prospective study evaluating the epidemiology, clinical patterns, risk factors of eczeMa was carried out between August 2014 and September 2014 at the eczeMa clinic of the dermatology department of Tirunelveli Medical College Hospital.

INCLUSION CRITERIA:

All the patients with eczeMa who attend the eczeMa clinic in the age group (18-80 years) regardless of sex, race, religion, social status, occupation, and treatment history.

EXCLUSION CRITERIA:

- Patients with eczeMa of less than 18 years.
- Other conditions which mimic eczeMa like psoriasis.
- Mentally deranged patients and those who are terminally ill.

A proforma was designed, including the information of age, sex, duration, occupation, presenting complaints, duration, clinical pattern, family history, previous treatment details including the treatment for Diabetes mellitus and Hypertension. All the patients with eczeMa in the study were informed of the survey and informed consent was obtained prior to the participation.

RESULT:

Between August 2014 and September 2014, 65 outpatients with a diagnosis of eczeMa attending dermatology department of the Tirunelveli Medical College Hospital were included in the study.

The overall incidence of eczeMa in our outpatient clinic was 32.3%. Men accounted for 64.6% and women 35.4%. Male to female ratio was 2.1:1. The distribution in age range was as follows: 19-50 years, 52.3% and 51-80 years, 47.6% (Table 1).

In our study sample Exogenous eczeMa accounted for 33.8% and endogenous eczeMa accounted for 66%. In endogenous eczeMa,

hand and foot eczeMa was common type (60%) followed by seborrheic dermatitis (16.2%), venous eczeMa (9.3%), discoid eczeMa (7%), lichen simplex chronicus (4.6%), atopic dermatitis (2.3%) and asteatotic eczeMa (2.3%). In exogenous eczeMa allergic contact dermatitis was common type (45%) followed by photo allergic contact dermatitis (36.6%) and irritant contact dermatitis (18%). (Table 2, 3 & 4). In hand and foot eczeMa 7 patients had allergy to fertilizers. In allergic contact dermatitis 4 patients had allergy to cement.

In our study farmers accounted 27.7% which was the major occupation of the patients included in our study, followed by housewives (15.3%) and masonry workers (15.3%). Out of 18 farmers 7 had allergy to fertilizer. Out of 10 housewives 5 had allergy to detergent. Out of 10 masonry workers 4 had allergy to cement. Since most of allergen that contributes to the development of eczeMa related to occupation and so occupation is the main predisposing factor in the development of eczeMa (Table 5).

Diabetes mellitus and hypertension were present as comorbidities in 20% and 18% of the patients under study (Table 6). 40% of the patients included under our study were smokers and 13.8% of the patients were alcoholics. 6% of the patients included under our study had bronchial asthma.

In our study population 76% of our patients had eczeMa for less than one-year duration, 18% of our patients had eczeMa for 2-5 years and 7% of our patients had the condition for 6-10 years.

DISCUSSION:

This study includes the outpatients with eczeMa seen in our department over the period of 2 months.

In our study male to female ratio was 2.1:1 and maximum patients were in age group 19-50 years (52.3%). This data are similar to the study of Sanjeev Handa et al where maximum patients in his study were in the age group of 21-45 years (54%) and male to female ratio was 2:1⁽¹⁰⁾. This distribution pattern can be explained as old individuals of more than 70 years have various defects in induction and/or elicitation of allergic contact dermatitis.

The distribution of types of eczeMa in our sample was similar to the published data. A study conducted by Horn R et al reported distribution of different types of eczeMa in which hand eczeMa (15%), contact dermatitis (12%), seborrheic dermatitis (11%), discoid eczeMa (7%), lichen simplex chronicus (6%), atopic dermatitis (5%), venous eczeMa (4%) and others (40%)⁽²⁾. All of the proportion were very similar to our study except for the atopic dermatitis which is lesser in our study which accounted for 2.32% of our patients under study.

A study conducted by the Goh CL et al at Singapore reported incidence of exogenous eczeMa was about 15.3% of the patients with eczeMa. Of these 50% were allergic, 39% irritant and others 13%⁽⁷⁾. These data are very similar to our study except for photo allergic contact dermatitis which accounted (36.3%). It may be due to changes in the environment, occupation and susceptibility of the

individual.

As occupation is the main predisposing factor in the development of eczema. This relevance also reported by Sanjeev et al in his study. He found that maximum number of patients in his study were housewives(45.7%) followed by mason(32.8%)⁽¹⁰⁾. But in our study maximum number patients were farmers(27.6%) followed by housewives(15.4%), This may be due to male predominance of the disease and sociocultural background, Most common form of occupational contact dermatitis is allergic contact dermatitis. In hand and foot eczema 7 patients had allergy to fertilizers. In allergic contact dermatitis 4 patients had allergy to cement. Out of 18 farmers 7 had allergy to fertilizer. Out of 10 housewives 5 had allergy to detergent. Out of 10 masonry workers 4 had allergy to cement. Since most of allergen that contributes to the development of eczema related to occupation and so occupation is the main predisposing factor in the development of eczema and so occupation is the main predisposing factor in the development of eczema. Our study also supports this evidence⁽⁹⁾⁽¹³⁾.

Diabetes mellitus and hypertension were present as comorbidities in 20% and 18% of the sample. Smokers and alcoholics were 40% and 13.8% in our sample respectively. Bronchial asthma was present in 6% of our sample. Current studies have not given any association of these factors with eczema. However, further studies are needed to support these observation.

CONCLUSION:

In our study we have found out that endogenous eczema(66%).In endogenous eczema hand and foot eczema(60%) was the common type among various types of eczema identified in patients(18-80 years) attending the outpatient department of dermatology. The study verifies that clinical features in patients with eczema are comparable to international standards. However further long term studies are needed in order to obtain epidemiological patterns of eczema, morphology and clinical patterns of eczema and the predisposing factors associated with the various patterns of eczema.

Table 1:Men to women ratio

AGE GROUP	MEN	WOMEN	TOTAL
18-50 YEARS	16	18	34(52.3%)
51-80 YEARS	26	5	31(47.6%)
TOTAL	42(64.6%)	23(35.4%)	65

Men to women ratio was 2.1:1

Table:2 Distribution of endogenous and exogenous eczema in relation to age and sex

TYPE OF ECZEMA	MEN		WOMEN		TOTAL
	18-50 YEARS	51-80 YEARS	18-50 YEARS	51-80 YEARS	
Endogenous eczema	8	21	11	3	43(66%)
Exogenous eczema	8	5	7	2	22(33.8%)

Table:3 Distribution of different types of endogenous eczema in relation to age and sex

Types of endogenous eczema	MEN		WOMEN		TOTAL
	19-50 years	51-80 years	19-50 years	51-80 years	
Hand and foot eczema	2	15	7	1	25(60.5%)
Venous eczema	2	2	0	0	4(9.3%)
Seborrheic dermatitis	2	1	3	1	7(16.2%)
Discoid eczema	1	1	1	0	3(7%)
Lichen simplex chronicus	0	1	0	1	2(4.65%)
Asteatotic eczema	0	1	0	0	1(2.32%)
Atopic dermatitis	1	0	0	0	1(2.32%)
TOTAL	8(18.6%)	21(49%)	11(25.6%)	3(7%)	43

Table :4Distribution of exogenous eczema in relation to age and sex

Types of exogenous eczema	Men	Women	Total
Allergic contact dermatitis	9	1	10(45.5%)
Irritant contact dermatitis	1	3	4(18.2%)
Photoallergic contact dermatitis	3	5	8(36.3%)
Total	13(59%)	9(40%)	22

Table:5Occupation of the patient in relation to eczema

Occupation	Endogenous eczema	Exogenous eczema	Total
Farmer	15	3	18(27.6)
Housewives	5	5	10(15.4%)
Masonry jobs	4	6	10(15.4%)
Others	19	8	27(41.5%)
Total	43	22	65

Table:6 Comorbidities like diabetes and hypertension

Comorbidity	MEN	WOMEN	TOTAL
Diabetes	11	2	13(20%)
Hypertension	5	7	12(18%)

LEGENDS FOR ILLUSTRATION:

FIGURE1:Allergic contact dermatitis to hair dye in 44 year old male



FIGURE2:Asteatotic eczema in 65 year old male in legs



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