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Original Research Paper

Dermatology

CLINICOEPIDEMIOLOGICAL STUDY OF HAND ECZEMA

Dr Poojashree A J Junior Resident, Department Of Dermatology, KVG Medical College And Hospital, Sullia, Dakshina Kannada

Dr Manjunatha P The Head Of The Department, Department Of Dermatology, KVG Medical College And Hospital, Sullia, Dakshina Kannada

Dr Sunil S Guggari Junior Resident, Department Of Dermatology, KVG Medical College And Hospital, Sullia, Dakshina Kannada

ABSTRACT

Introduction: Hand eczema has an estimated lifetime risk of 2–10% and accounts for 9–35% of occupational diseases thereby constituting a major socioeconomic burden. It is more common in females and is associated with atopy and household/occupational exposure to irritants/sensitizers. Eczema of hand or foot though not life-threatening, not only impacts daily activities and work productivity adversely, but also impairs interpersonal relationships. **Materials and Methods:** This was a prospective cross-sectional study of 50 outpatients of hand eczema at a tertiary care teaching institute. Consecutive patients aged 18 years or above with a clinical diagnosis of hand/foot eczema were included in the study. Patients with dermatophyte or candidal infections diagnosed clinically or by positive skin scraping for fungus on potassium hydroxide preparation were excluded. Those with palmoplantar psoriasis, psoriatic lesions elsewhere and/or psoriatic nail involvement were also excluded.The demographic details, duration of complaints, recurrence and other complications were noted in a pro forma. **Results:** Fifty patients had hand eczema, with a mean age of 45.82 +/- 12.66 years. Hand eczema was more frequent in females (33) than males (17). Hand eczema was more common among housewives (18) followed by manual labourers (11). In 1/3rd of the population, a recurrent course in hand eczema (21; 38.1%). 64% of the study participants had the complaints for more than 7 months. **Conclusion:** Hand eczema prevalent among females showed a high rate of recurrence and was associated with use of cosmetics or detergents. Also, there was no association with other atopy.

KEYWORDS :

INTRODUCTION

Hand eczema has an estimated lifetime risk of 2–10% and accounts for 9–35% of occupational diseases thereby constituting a major socioeconomic burden.

It is more common in females and is associated with atopy and household/occupational exposure to irritants/sensitisers.

Eczema of hand or foot though not life-threatening, not only impacts daily activities and work productivity adversely, but also impairs interpersonal relationships.

Clinically, hand eczema is characterized by signs of erythema, vesicles, papules, scaling, fissures, hyperkeratosis and symptoms of itch and pain.

Chronic hand eczema is considered when hand eczema is of more than 6 months duration.

Aims

To study the impact of disease on the quality of life and assess the direct and indirect cost of illness in patients with hand eczema.

METHODS

This was a prospective cross-sectional study of 50 outpatients of hand eczema at a tertiary care teaching institute.

Consecutive patients aged 18 years or above with a clinical diagnosis of hand/foot eczema were included in the study.

Patients with dermatophyte or candidal infections diagnosed clinically or by positive skin scraping for fungus on potassium hydroxide preparation were excluded. Those with palmoplantar psoriasis, psoriatic lesions elsewhere and/or psoriatic nail involvement were also excluded.

The demographic details, duration of complaints, recurrence and other complications were noted in a proforma.

Patch test reading was taken on Day 2 (48 h) and Day 4 (96 h). It was interpreted using criteria laid down by International Contact Dermatitis Research Group and classified into the following clinical types on the basis of relevant criteria for the classification of chronic hand eczema subtypes: 6

Allergic contact dermatitis: Positive patch test for relevant allergen and/or allergen avoidance successful in preventing flares and/or presence of eczema spreading

Irritant contact dermatitis: Excessive contact of hands with water or irritants, either private or occupational

Atopic hand eczema: A family history of atopy and/or history of atopy (allergic rhinitis or asthma) and/or raised serum IgE and atopy stigmata

Not specified: When a patient was patch test negative and did not fit into criteria of atopy and no obvious history of wet work[7] or contact with irritant was present

All statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS) software version 20.0. The categorical comparison was done by Chi-square/ Fischer's test

Nonparametric tests like the Mann–Whitney and Kruskal–Wallis tests were applied to find a correlation between categorical and continuous variables

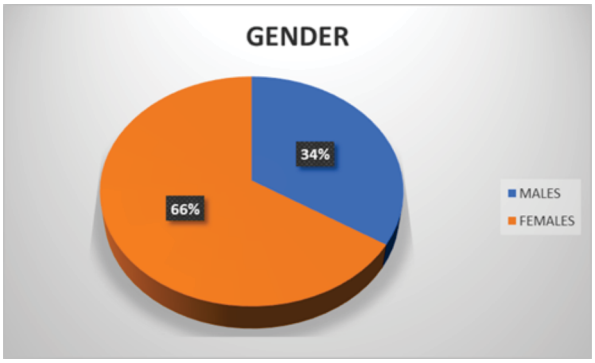
Spearman's correlation was applied to find the correlation between the continuous variables.

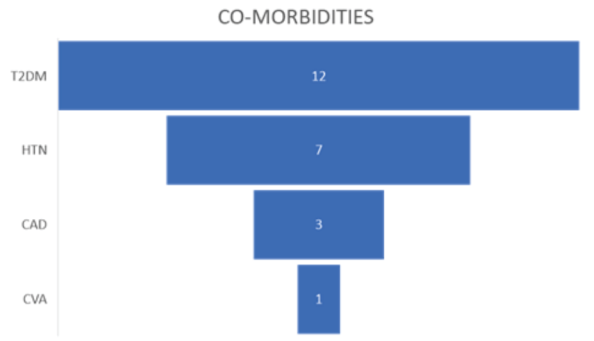
RESULTS

Fifty patients had hand eczema, with a mean age of 45.82 +/- 12.66 years

Hand eczema was more frequent in females (33) than males (17)

Majority of the patients had T2DM (12)

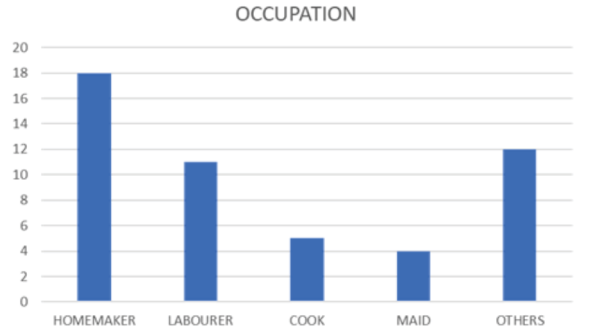




Hand eczema was more common among housewives (18) followed by manual labourers (11).

In 1/3rd of the population, a recurrent course in hand eczema (21; 38.1%)

64% of the study participants had the complaints for more than 7 months.



Morphologically, chronic dry fissured eczema was the most common pattern seen in 18 (36%) of patients followed by mixed type (9%), hyperkeratotic palmar eczema (5%), vesicular eczema with recurrent eruption (9%), nummular eczema (7%) and wear and tear dermatitis (7%).

Out of the 50 patch-tested patients, 70% of patients gave positive patch test results, while 30% had negative results.

Potassium dichromate was the most common sensitizer in males(9%), while in females it was nickel 12

DISCUSSION

A few Indian[4-6]as well as Western studies [7,8], have reported allergic contact dermatitis because of propyl gallate, in the form of depigmentation and/or cheilitis, However, none of them was specific for hand eczema

Therefore, we suggest patch testing of all patients with suspected allergic contact dermatitis with cosmetic series, using their own products like creams or cosmetics, must be carried out to avoid missing this allergen.

Scalone et al study conducted a study, and their results show that non-severe chronic hand eczema is more frequent among women and in people aged < 40 years, while men, people aged 41–50 years and people with a lower level of education are at higher risk of having chronic hand eczema.

Irritant contact dermatitis was significantly more in females, in accordance with a recent Danish study by Diepgen et al.[19] It could be attributed to the impact of domestic wet work.

CONCLUSION

Hand eczema prevalent among females showed a high rate of recurrence and was associated with use of cosmetics or detergents

Also, there was no association with other atopy

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