

Original Article

FREQUENCY OF CAUSAL FACTORS OF FACIAL CONTACT DERMATITIS IN DERMATOLOGY OPD OF CHARITY HOSPITAL

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ABSTRACT

Background: The face is exposed to a great number of cosmetics and facial dermatitis is the prototypical presentation of cosmetic contact dermatitis. This study aimed to determine the frequency and causes of contact dermatitis on the face of patients coming to dermatology OPD.

Material and Methods: Cross-sectional study was conducted in the outpatient department of Dermatology, Akhtar Saeed Trust Hospital, EME, Lahore, over six months i.e, July 2020 to December 2020. Patients between 12-71 years with contact Dermatitis on the face were enrolled in the study. All data were entered in SPSS and analyzed.

Results: There was a total of 182 patients who presented with a contact dermatitis on the face. 145(79.7%) were females, and 37 (20.3%) were males. About 76(41.8%) patients had facial contact dermatitis due to the use of whitening creams, 48 (26.4%) patients had this because of steroid abuse (which are easily available in the market), In 35 (19.2%) patients, the cause was the application of mix creams whereas 23 (12.6%) patients had a history of hair dye usage.

Conclusion: This study concluded a high frequency of patients with contact dermatitis. The most common cause is whitening agents available in the market.

Key Words: Contact dermatitis, Cross-sectional study, Dermatitis

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INTRODUCTION

Contact dermatitis is an inflammatory response caused by contact with a substance allergic or irritant.¹ Contact dermatitis is a rash that crops up on your skin when you touch or have a reaction to a certain substance. It's red, itchy, and uncomfortable, but it's not life-threatening.² The rash could be caused by an allergy or because the protective layer of your skin got damaged. Allergic contact dermatitis is accepted to be the most prevalent.³

The face is exposed to a great number of cosmetics, and as a result, facial Dermatitis is

the prototypical presentation of cosmetic contact dermatitis.^{4,5} Allergic contact dermatitis is a hypersensitive reaction that occurs by a complex mechanism with the interaction of immunoregulatory cytokines and subsets of T lymphocytes.^{6,7}

Patients with a contact dermatitis on the face usually present redness, burning, and itching sensation on the affected area.^{8,9} Over time, the skin becomes pigmented and cracky with more severe symptoms. Causes of contact dermatitis on the face are many, but cosmetics are the reason most commonly in females. Use of whitening agents, steroid abuse, and mix creams top the list.^{10,11}

Determining the cause of contact dermatitis in patients coming to dermatology OPD may help find the most common etiological factor of redness and burning on the face.

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Figure-1: Contact dermatitis on the face of patients due to the use of whitening agents

MATERIAL AND METHODS

This cross-sectional study was carried out in the outpatient department of Dermatology, Akhtar Saeed Trust Hospital, EME, Lahore, over six months i.e 1st July 2020 to 31st Dec 2020. Non-probability consecutive sampling was done. Data entry and analysis were performed on SPSS 16.

After approval from the hospital ethical committee, patients fulfilling the criteria were included in the study. Patients between 12 to 71 years with facial contact dermatitis were enrolled in the study. Patients with a history of connective tissue disorders, photo contact dermatitis, and drug-induced Dermatitis were excluded. Physical examination to determine other causes of contact dermatitis was done. Duration of symptoms was noted. Chi-square test was used post-stratification with p-value ≤ 0.05 considered as significant

RESULTS

One hundred eighty-two patients presented with a contact dermatitis on the face. Among total, 145(79.7%) were females and 37(20.3%) were males. Table-1. Among total participants, 76(41.8%) patients had facial contact dermatitis due to the use of whitening creams, 48(26.4%) patients had this because of steroid abuse (which are easily available on the market). In 35(19.2%) patients the cause was the application of mixed creams, whereas 23(12.6%) patients had a history of hair dye usage. Table-2. About 30(16.5%) patients were of skin type III, 129 (70.9%)

patients were of skin type IV, and 23(12.6 %) patients were of skin type V. Table-3

Mean age of participants was 30.5±1.11 years (minimum 12 years to maximum 71 years)

Table-1: Descriptive statistics according to gender

	Frequency	Percent
Male	37	20.3
Female	145	79.7
Total	182	100.0

Table-2: Descriptive statistics according to causes of contact dermatitis

Causes	Frequency	Percent
Whitening creams	76	41.8
Steroid abuse	48	26.4
Mix creams	35	19.2
Hair dye usage	23	12.6
Total	182	100.0

Chi square= 34.13, p-value =0.0001

Table-3: Descriptive statistics according to skin type

Skin types	Frequency	Percent
III	30	16.5
IV	129	70.9
V	23	12.6

Chi sq= 2.139, p-value= 0.001

DISCUSSION

In this study, 182 patients presented with contact dermatitis, of which 37 (20.5%) were males and 145 (79.7%) were females. Yasmeen J Bhat conducted a study on 200 patients of steroid-induced rosacea in which 144 were females and 56 were males.¹²

In our study findings, the frequency of patients reported with contact dermatitis due to hair dye usage were 12.6% while another Korean study found that 11.3% cases showed positive reaction to PPD in hair dyes.¹³

In this study, the cause of contact dermatitis was the use of whitening agents in 76(41.8%) patients, topical steroid abuse in 48(26.4%) patients, application of mix creams in 35 (19.2%), and hair dye usage in 23 (12.6%) patients. Waranya Boonchai et al carried out

a study on 1247 cases and found that fragrance chemicals and preservatives were the most commonly recognized contact allergen.¹⁴

In this study, the skin type frequency was 30 (16.5%) for type III skin, 129 (70.9%) for type IV skin, and 23 (12.6%) for type V skin. Ida Darate found that contact dermatitis in adolescents was more frequent in white girls.¹⁵

Erin M Warshaw et al, carried out a retrospective study on 50507 patients who underwent patch testing. 1332 male patients had facial Dermatitis. They appear to have unique sources of allergens that must be considered as male grooming practices evolve.¹⁶

Most frequently female patients with contact dermatitis were presented because of greater exposure to cosmetic agents and the social stigma of having bad facial skin. Prolonged application of topical steroids can lead to rosacea.¹⁷

To create awareness among the general population to avoid using whitening agents commonly available in the market, topical steroid abuse and mix creams application to prevent contact dermatitis is need of the hour.

CONCLUSION

The study concludes that contact dermatitis is common in female patients, using whitening agents, steroids, and mixed creams. This study might help in the treatment of such patients.

AUTHOR'S CONTRIBUTION

RA: Drafted the manuscript

MS: Analysed the data

RM: Data collection

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