

**Original Article****A Study to Determine the Clinico-Etiological Factors in Eye Lid Dermatitis**

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Email: drshyamverma77@gmail.com**Abstract**

Aim: To find out clinico-etiological factors in eye lid dermatitis.

Material methods: The present study included all patients with clinical diagnosis of eyelid dermatitis attending dermatology outpatient's department at Indira Gandhi Medical College, Shimla over a period of one year. Sixty five consecutive patients of eyelid dermatitis and were patch tested and the data was analysed. Indian cosmetic and fragrance series with forty four allergens approved by Contact and Occupational Forum of India (CODFI) was used for patch test. In addition, suspected personal cosmetics in appropriate dilution and base and eye medications were used as such for patch test.

Results: There was female predominance with 39 (60%) female and 26 (40%) male patients. Majority of the patients i.e. 28 (43.08%) were young adults in the age group of 11 to 30 years. Most of the patients 47 (72.31%) belonged to urban area and 18(27.69%) were from rural background. Ten patients (15.38%) had atopic diathesis. Patch test positivity was seen in 51 (78.46%) patients. Patch test sensitivity was observed for one antigen in 38.46%, two antigens in 30.77% and three or more antigens in 9.23% patients respectively. Nickel sulphate sensitivity was seen in 12 (18.46%) patients followed by paraphenylene diamine in 10(15.38%) patients, balsam of peru in 8 (12.30%)patients, fragrance mix in 7 (10.77%) patients, cetramide and thiomersal in 5 (7.69%) patients each, cobalt chloride and neomycin in 4 patients (6.15%), colophony and paraben mix in 3 each(4.61%) patients, gallate mix, gentamycin, potassium dichromate, benzyl salicylate in 2 each (3.08%) patients, musk mix, parthenium, hexamethylene tetramine, polyoxyethylene sorbitan monooleate, rose oil Bulgarian, jasmine absolute, wool alcohol in 1 (1.54%) patient each.

Conclusions: Though contact dermatitis is the commonest cause of eyelid dermatitis, other conditions like seborrhoeic dermatitis, psoriasis, dermatomyositis, rosacea, infections, infestations, urticaria etc should always be borne in mind. The main challenge is to identify the allergens since a number of cosmetics are being used by the patient serially or simultaneously. The use of cosmetics is a long standing practice that extends worldwide and virtually reaches one and all and the trend is only growing, so the problem of eyelid dermatitis needs proper addressal.

Keywords: Eye lid dermatitis, allergic contact, patch test, cosmetics.

Introduction

Eyelids are subjected to potentially harmful airborne allergens, UV radiation and chemicals placed inadvertently from the hands or advertently through cosmeceuticals. Women in our society habitually coat eyelids with cosmetics. Eyelids are commonly challenged by systemic contact dermatitis as well. The differential diagnosis includes allergic contact dermatitis, irritant contact dermatitis, atopic eczema, seborrheic dermatitis, dermatomyositis, rosacea, psoriasis, cutaneous T-cell lymphoma, infections, infestations, dermatographism and contact urticaria.⁽¹⁾ The eyelids are susceptible to irritants and allergens owing to their very thin skin (0.55 mm) which allows easier penetration of contact and airborne allergens.⁽²⁾ The responsible allergens may be of occupational or non-occupational origin and may reach the skin by intentional application (cosmetics), by contact with spouses, partners, friends or colleagues who convey the allergens, to cause “connubial” or “consort” dermatitis, transfer from other sites on the body, generally the fingers (nail varnish allergy). In combination with exposure to the sun, as in the case with photo allergens such as certain sunscreen agents and as an expression of a spread or a generalization of a contact dermatitis elsewhere on the body, e.g. in a leg-ulcer patient.⁽³⁾ Nickel and cobalt have been implicated in eyelid dermatitis as allergens by direct contact with metallic objects such as an eyelash curler and spectacle frames and keys, coins, and other metallic objects, it may be present in mascara and eye makeup. Eye lids are also target in air born contact dermatitis caused by pollen, dust mites, animal dander, and chemicals suspended in the air.⁽⁴⁾

Josef Jadassohn, father of contact dermatitis described contact allergy to mercury. He was the founder of patch testing in 1895 while working at Breslau University. Bruno Bloch while working in Basel in 1911 produced a grading system for patch test reactions also introduced the concept of a standard series of allergens⁽⁵⁾, cross-sensitization and systemic allergic contact dermatitis.⁽⁴⁾ Allergic contact dermatitis is commonest cause of eyelid

dermatitis and occurs between 46 and 74 %^(6,7,8) in such patients. The published percentage of patients with eyelid dermatitis from cosmetic exposure lies between the extremes of 2.5%⁽⁹⁾ and 26%⁽¹⁰⁾. Fragrance components, preservative agents, emulsifiers, hair-care products and nail-cosmetic ingredients are the major allergenic culprits.

Hair-care products do often cause problems around the scalp, i.e. ears, neck, forehead particularly on the eyelids as is seen with p-phenylene-diamine (PPD) and toluene diamine (hair dyes), glyceryl thioglycolate (permanent wave solutions), and ammonium persulfate (hair bleaching powder) which may also cause contact urticaria in hairdressers.⁽¹¹⁾

Materials and Methods

All patients with clinical diagnosis of eyelid dermatitis attending dermatology outpatient's department at Indira Gandhi Medical College, Shimla over a period of one year were included in this study. Patient younger than 10 years of age, pregnant, lactating women and those who were on systemic corticosteroids equivalent to 20mg or more, prednisolone or any other immunosuppressive drug or applying potent topical steroids in proceeding 2 weeks were excluded. Forty four allergens present in Indian cosmetic and fragrance series approved by Contact and Occupational Forum of India (CODFI) were used for patch test. In addition, suspected personal cosmetics in appropriate dilution and base and eye medications were used.



Fig 1: Forty four allergens present in Indian cosmetic and fragrance series approved by Contact and Occupational Forum of India (CODFI) and seventeen known antigens from Indian standard battery and suspected personal cosmetics.

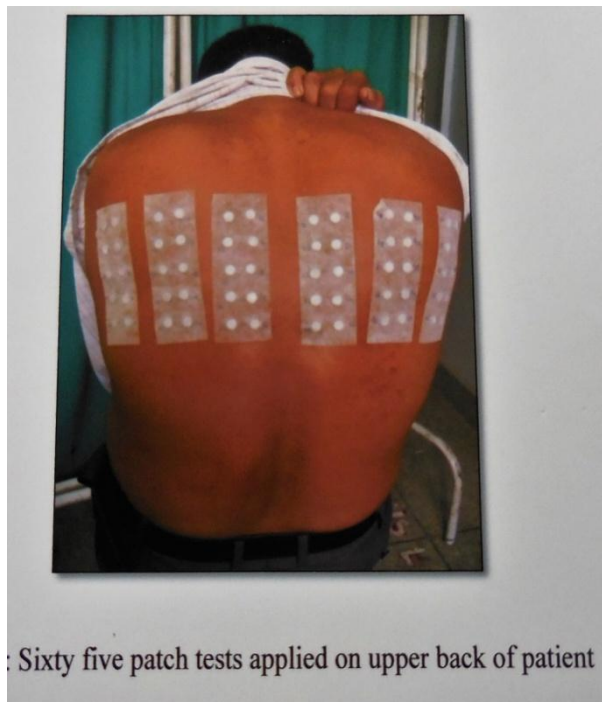
The allergens used in patch testing are enlisted in Table 1.

Sr.No.	Compound	Conc. (%)	Vehicle
1.	Abitol	10	Petrolatum
2.	Amerchol L 101	50	Petrolatum
3.	Benzyl alcohol	1	Petrolatum
4.	Benzyl salicylate	2	Petrolatum
5.	2-Bromo-2-Nitro-1,3-diol	0.25	Petrolatum
6.	2-tert-Butyl-4-methoxy phenol	2	Petrolatum
7.	2,6-di-tert-butyl-4-cresol	2	Petrolatum
8.	Cetyl alcohol	5	Petrolatum
9.	2-chloroacetamide	0.2	Petrolatum
10.	4-chloro-3,5-xyleneol	0.5	Petrolatum
11.	Gallate mix	1.5	Petrolatum
12.	Geranium oil of Bourbon	2	Petrolatum
13.	2-hydroxy-4-methoxybenzophenone	10	Petrolatum
14.	Tinuvin P	1	Petrolatum
15.	Imidazolidinyl urea	2	Aqueous
16.	Isopropyl myristate	20	Petrolatum
17.	Jasmine absolute, Egyptian	2	Petrolatum
18.	Lavender absolute	2	Petrolatum
19.	Musk mix	3	Petrolatum
20.	Phenyl salicylate	1	Petrolatum
21.	Polyoxyethylenesorbitan	5	Petrolatum
22.	Rose oil Bulgarian	2	Petrolatum
23.	Sorbic acid	2	Petrolatum
24.	Sorbitan monooleate	5	Petrolatum
25.	Sorbitan sesquioleate	20	Petrolatum
26.	Stearyl alcohol	30	Petrolatum
27.	Tert-Butylhydroquinone	1	Petrolatum
28.	Thiomersol	1	Petrolatum
29.	Triclosan	2	Petrolatum
30.	Triethanolamine	2	Petrolatum
31.	Vanillin	10	Petrolatum
32.	Oleamidopropyl dimethylamine	0.1	Petrolatum
33.	Cetrimide	0.5	Petrolatum
34.	Jasmine synthetic	2	Petrolatum
35.	Hexamethylene tetramine	2	Petrolatum
36.	Petrolatum, white	100	
37.	Chlorhexidine digluconate	0.5	Aqueous
38.	Phenylmercuric acetate	0.01	Aqueous
39.	Cocamidopropylbetaine	1	Aqueous
40.	2,5-Diazolidinylurea	2	Aqueous
41.	Ethylenediaminehydrochloride	1	Petrolatum
42.	Quarternium 15	1	Petrolatum
43.	Propylene glycol	5	Petrolatum
44.	5-Chloro-2-methyl-4-isothiazolin-3-one	0.02	Aqueous
45.	Potassium Dichromate	0.5	Petrolatum
46.	Neomycin Sulphate	20.0	Petrolatum
47.	Cobalt(II) Chloride hexahydrate	1	Petrolatum
48.	Benzocaine	5	Petrolatum
49.	4-Phenylenediamine base (PPD)	1	Petrolatum
50.	Paraben mix	15	Petrolatum
51.	Nickel Sulfate hexahydrate	5	Petrolatum
52.	Colophony	20	Petrolatum
53.	Gentamicin sulphate	20	Petrolatum
54.	Mercapto Mix	2	Petrolatum
55.	Epoxy resin	1	Petrolatum
56.	Fragrance mix	8	Petrolatum
57.	Wool Alcohols	30	Petrolatum
58.	Balsam of Peru	25	Petrolatum
59.	Black rubber mix	0.6	Petrolatum
60.	P-tert-Butyl phenol formaldehyde resin	1	Petrolatum
61.	Formaldehyde	1	Aqueous
62.	Parthenium	0.1	Petrolatum
63.	Suspected personal cosmetics		
64.	Suspected topical eye medications		

Most type of “leave on products” i.e. products meant to stay on skin for prolonged periods were patch tested “as is.” “Rinse off” product were tested after appropriate dilution. Suspected topical eye medications were being patch tested “as is.”

Readymade aluminium patch test chambers were used having 9mm internal diameter, 0.7mm depth and a volume of 43µl. They were mounted on micropore tape at 2 cm apart from each other in two columns. These units were covered with non-sticking release paper and stored at room temperature for ready use.

Clinical details regarding age, gender, duration and evolution of dermatitis, site of onset, progression, aggravating factors, past and present treatment taken, personal and family history of atopy were recorded. A thorough clinical examination of site and type of lesions was recorded on a designed proforma. After explaining the procedure and obtaining written consent, patch tests were applied on the upper back and the proximal forearms. The patients were asked to come after 48hrs and 72hrs for reading the results of the patch test. After 48 hours patches were removed and the patients were instructed to avoid scratching and wait for one hour for skin to regain its normal contour and non-specific skin irritation subsides. Sites were then examined for signs of dermatitis. At 72 hours second reading was taken. If required, patient were asked to come for late reaction reading at 96 hours.



Observations

Sixty five consecutive patients of eyelid dermatitis and were patch tested and the data was analysed. In this study there was female predominance with 39 (60%) female and 26 (40%) male patients. Wide age range patients presented to us, in between 12 to 72 years, with mean age of 36.26 years. Majority of the patients i.e. 28 (43.08%) were in the age group of 11 to 30 years. Maximum were housewives i.e. 21 (32.31%) followed by students (13.84%). Various other occupations included in the study are shown in Table 2.

Table 2: Occupation of the patients.

Occupation	Males		Females		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Housewife	0	0%	21	32.31%	21	32.31%
Student	9	13.84%	9	13.84%	18	27.69%
Teacher	0	0%	7	10.77%	7	10.77%
Govt. employee	5	7.69%	0	0%	5	7.69%
Businessman	3	4.61%	0	0%	3	4.61%
Farmer	2	3.08%	0	0%	2	3.08%
Daily wager	2	3.08%	0	0%	2	3.08%
Clerk	1	1.54%	1	1.54%	2	3.08%
Professional Worker	2	3.08%	0	0%	2	3.08%
Skilled worker	2	3.08%	0	0%	2	3.08%
Police	1	1.54%	0	0%	1	1.54%
Total	27	41.56%	38	58.44%	65	100%

Regarding educational status, maximum patients i.e. 23 (35.85%) were graduates, 15 (23.07%) females and 8(12.30%) males were postgraduates. Out of 65 patients majority 47 (72.31%) belonged to urban region and 18(27.69%) were from rural background. Ten patients (15.38%) had atopic diathesis, one patient (1.54%) had family history of atopy and eight patients (12.31%) had a positive personal as well as family history of atopy. The duration of dermatitis varied from 2 days to 8 years (mean 58.23 weeks). Most of patients i.e. 30 (46.15%) presented to us within 6 weeks of onset of their disease. Itching was the most common presenting symptom in 60 patients (92.31%). Other features were scaling (44.61%), hyperpigmentation (40.0%), burning (36.92%), oozing (23.07%), redness (21.53%), photosensitivity (18.46%), watering of eyes (18.46%), crusting (12.31%), puffiness (12.31%), skin thickening(9.23%), foreign body sensation in eye (4.61%), hypo pigmentation (4.61%), loss of eyelashes(3.08%), pain (1.54%) and suppuration(1.54%) in the lesions. Upper eyelid was the commonest site of dermatitis in 39 patients followed by both eyelids in 25 patients and lower eyelid alone in 1 patient. Erythema was the commonest morphological presentation in 61 (95.85%) patients, papules in 33 (50.77%), scaling in 30 (46.15%), hyperpigmentation in 26 (40.0%), oozing in 25 (38.46%), oedema in 21(32.31%), lichenification in 10 (15.38%), vesicles, telengiactasias and hypo pigmentation in 3 patients (4.67%) each, crusting and loss of eyelashes in 1 (1.54%) patient each.

Cologne/deodorants were suspected in 17 (26.15%) patients. Other articles suspected were facial cream in 14 (21.53%), hair dye in 12 (18.46%), eyeliner in 10 (15.38%), nail paint in 8 (12.31%), ophthalmic solutions in 7 (10.77%), mascara in 4 (6.15%), eyeshadow in 3 (4.61%), hair bleach, hair spray in 2 (3.08%) each patients, soaps, after shave gel, mustard oil, grease, parthenium and insecticide in 1(1.54%) patient each.

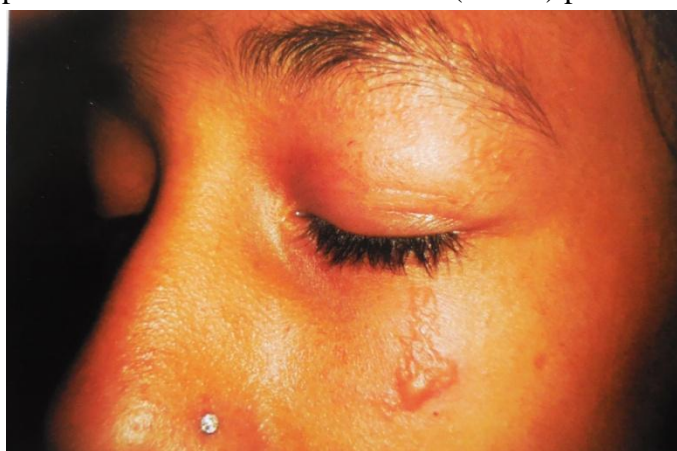
Patch Test Results

In present study patch test positivity was seen in 51 (78.46%) patients. Patch test was positive for one antigen in 38.46%, two antigens in 30.77% and three or more antigens in 9.23% patients respectively. Most common antigen showing patch test positivity was nickel sulphate hexahydrate in 12 (18.46%) patients followed by paraphenylene diamine in 10(15.38%) patients, balsam of peru in 8 (12.30%)patients, fragrance mix in 7 (10.77%) patients, cetramide and thiomersal in 5 (7.69%) patients each, cobalt chloride and neomycin in 4 patients (6.15%), colophony and paraben mix in 3 each(4.61%) patients, gallate mix, gentamycin, potassium dichromate, benzyl salicylate in 2 each (3.08%) patients, musk mix, parthenium, hexamethylene tetramine, polyoxyethylene sorbitan monoleate, rose oil Bulgarian, jasmine absolute, wool alcohol in 1 (1.54%) patient each. Most common suspected article to show patch test positivity was hair dye in 6 patients (9.23%). Other articles which showed positive patch test were ophthalmic medications and nail paint in 3(4.61%) patients each and facial cream in 1 (1.54%) patient.

	er	nt	er	nt	er	t
Nickel sulphate hexahydrate	0	0%	13	20.0%	13	20.0%
4-phenylenediamine base	6	9.23%	4	6.15%	10	15.38%
Balsam of peru	3	4.61%	5	7.69%	8	12.30%
Fragrance mix	2	3.08%	5	7.69%	7	10.77%
Cetrimide	0	0%	5	7.69%	5	7.69%
Thiomersal	1	1.54%	4	6.15%	5	7.69%
Cobalt chloride hexahydrate	1	1.54%	3	4.61%	4	6.15%
Neomycin sulphate	3	4.61%	1	1.54%	4	6.15%
Colophony	2	3.08%	1	1.54%	3	4.61%
Paraben mix	2	3.08%	1	1.54%	3	4.61%
Gallate mix	1	1.54%	1	1.54%	2	3.08%
Gentamycin sulphate	2	3.08%	0	0%	2	3.08%
Potassium dichromate	1	1.54%	1	1.54%	2	3.08%
Benzyl salicylate	2	3.08%	0	0%	2	3.08%
Musk mix	1	1.54%	0	0%	1	1.54%
Parthenium hystrophorus	1	1.54%	0	0%	1	1.54%
Hexamethylene tetramine	0	0%	1	1.54%	1	1.54%
Polyoxyethylene sorbitan monoleate	0	0%	1	1.54%	1	1.54%
Rose oil Bulgarian	1	1.54%	0	0%	1	1.54%
Jasmine absolute	0	0%	1	1.54%	1	1.54%
Wool alcohol	0	0%	1	1.54%	1	1.54%
Suspected Articles						
Hair dye	5	7.69%	1	1.54%	6	9.23%
Ophthalmic medications	2	3.08%	1	1.54%	3	4.61%
Facial cream	0	0%	1	1.54%	1	1.54%
Nail paint	0	0%	1	1.54%	1	1.54%

Out of 13 patients showing patch test positivity to nickel sulphate all were females and in majority of these eyelid dermatitis was suspected due to use of eyeliner, eyebrow pencil or mascara. One patient among these showed simultaneous positivity to paraphenylenediamine, cobalt chloride and potassium dichromate while another patient showed multiple positive reactions to balsam of peru and polyoxyethylene sorbitan along with nickel sulphate. Another patient using multiple eye cosmetics showing positivity to nickel sulphate also reacted to thiomersal and cobalt chloride.

Among 10 patients showing patch test positivity to paraphenylene diamine, 6 of them also showed positivity to various hair dyes and mehndi preparations. Balsam of peru was positive in 8 patients, fragrance mix in 7 patients and cetrimide in 5 patients with dermatitis due to deodorants,



Positive patch to thiomersal in a patient using eye drops containing thiomersal.

Table 3 : Patch test positivity to various allergens.

Allergen	Males		Females		Total	
	Numb	Perce	Numb	Perce	Numb	Perce

colognes and facial creams. Thiomersal was positive in 4 patients using eye makeup and in 1 patient along with neomycin and gentamycin. Neomycin and Gentamycin was positive in 3 and 2 patients each due to use of topical ointments and eye drops. Cobalt chloride was positive in 2 patients along with nickel sulphate with suspected dermatitis due to eye cosmetics. Colophony and parabens were positive in 3 patients each with suspected dermatitis due to facial creams, nail paints and eye makeup. Gallate mix, an antioxidant was positive in 2 patients due to facial creams. Potassium dichromate was found positive in 1 patient along with parthenium, balsam of peru and colophony and in another patient along with cobalt chloride, paraphenyldiamine and nickel sulphate. Benzyl salicylate was positive in 2 patients using topical medicaments. Musk mix was patch tested in a patient of eyelid dermatitis suspected from shaving cream preparations and showed positive reaction. Patch test to parthenium was positive in 1 patient of eyelid dermatitis suspected of airborne contact dermatitis due to parthenium. One patient each showed positivity to Rose oil of Bulgarian and Jasmine absolute suspected due to cologne and deodorants. In majority of patients the relevance of patch test was established, out of 88 patch tests 81.81% patches showed definite result, 15.90% patches were probable and 2.27% were of unknown relevance. Out of 65 patch tested patients, majority of them i.e.53 patients (81.54%) were diagnosed with allergic contact dermatitis; 1 patient (1.54%) with irritant contact dermatitis; 4 patients (6.15%) of atopic dermatitis; 3 patients (4.61%) with seborrhoeic dermatitis; 1 patient (1.54%) each with psoriasis, tinea faciei, one patient (1.54%) had both allergic contact dermatitis and atopic dermatitis.

Discussion

Large numbers of allergens (64) were tested in the present study, along with a variety of personal use products and medicaments used by patients. We found contact sensitivity in 78.46% of patients. Patch test was positive for one antigen in 38.46% of patients, 2 antigens in 30.77% and 3 or antigens in

9.23% patients. Patch test positivity to both suspected articles and ingredients was seen in 13.84%, ingredients alone in 61.54% and suspected articles alone in 1.54% of patients. Rietschel et al⁽¹²⁾, found positivity with at least one allergen by 65 screen allergens tray in 65.30% patients and there were 12.31% cases in which an allergen other than those in screening tray was identified. In our study Nickel sulphate hexahydrate was the commonest allergen in 20% of patients, which was comparable to various studies, Feser et al,⁽¹³⁾ 19.5%, in Guin et al,⁽¹⁾ 19.21%, Cooper et al,⁽¹⁴⁾ in 17.2 %, and Amin et al,⁽²⁾ in 13.4% of patients. Nickel is not listed as ingredients of cosmetics, so its presence probably results from contamination in manufacture though some mascara products have been shown to contain nickel or the metal may originate from the pigment or from the metal cylinder in which the mascara is kept. Higher nickel patch test positivity in women in our study may be due to sensitization because of ear and nose piercing and also the more frequent use of artificial jewellery. Cobalt chloride hexahydrate was positive in 6.15% patients. Similar results were seen by Valesschi et al,⁽⁷⁾ in 6%, Amin et al,⁽²⁾ in 6.5%, Goosens et al,⁽¹¹⁾ in 8.91% and Guin et al,⁽¹⁾ in 9.36% patients. Positivity to PPD in our study was seen in 10(15.38%) patients, 6 out of which also showed positivity to the various hair dyes and mehndi preparations. Herro et al.⁽¹⁵⁾ found positivity in 12.90%, Goosens et al,⁽¹¹⁾ in 8.91% patients, Cooper et al,⁽¹⁴⁾ in 1.3% and Amin et al,⁽²⁾ 2.2%. The higher positivity can be explained by more frequent use of hair dyes in our study sample and the frequent use of henna based decorative skin paintings on hands. In present study balsam of peru was positive in 12.30% of patients. Similar results were found by Feser et al,⁽¹³⁾ in 13.8%. In various other studies, Reitschal et al,⁽¹²⁾ found positivity in 6.3%, Herro et al,⁽¹⁵⁾ in 22.58%, Goosens et al,⁽¹¹⁾ in 8.45% and Cooper et al,⁽¹⁴⁾ in 1.74%. Fragrance mix was positive in 10.77% of patients in our study. Similar results were found by Feser et al,⁽¹⁶⁾ in 11.5%, Goosens et al,⁽¹¹⁾ in 15.46% and Herro et al,⁽¹⁵⁾ in 19.35%, while Valesschi et al,⁽⁷⁾ in 8%, Reitschel et al,⁽¹²⁾ in 7.1% and Cooper et al,⁽¹⁴⁾ in 6% of

patients. Jasmine absolute showed positive patch test in 1(1.54%) patient in our study. Thiomersal showed patch test positivity in 7.64% patients in our study. Similar results were seen by Herro et al,⁽¹⁵⁾ in 6.45% patients and Valesschi et al,⁽⁷⁾ in 6.66% patients. Vaccination is the possible cause of sensitization in early childhood so relevance of positive patch test needs to be evaluated carefully. Paraben mix positivity was seen in 4.61% patients, which was higher than observed by Kurt et al,⁽¹⁶⁾ (in 2%) and Cooper et al,⁽¹⁴⁾ in 0.4% of cases. This can be explained as in majority of our patients facial creams were suspected as offending agents.

In our present study colophony was positive in 4.61% patients, which was in accordance with results obtained by Amin et al,⁽²⁾ (4.3%), Cooper et al,⁽¹⁴⁾ (3%), while Goosens et al,⁽¹¹⁾ found colophony to be positive in 7.29% and Kurt et al,⁽¹⁶⁾ in 7%. The higher positivity may be due to a very large sample size in their studies. Gallate mix, an antioxidant was positive in 2(3.08%) patients using facial cream in our study. Penchalaih et al,⁽¹⁷⁾ found patch test positive to gallate mix in 2% patients who also showed positivity to facial cream.

Neomycin was positive in 6.15% patients in our study. One patient showed positivity to both neomycin and gentamycin. In various studies positivity was seen in 3.3% to 16.13%^(12,15) of patients. The difference is due to variable rates of use of ophthalmic medications in various study populations. Both neomycin and gentamycin are frequently found broad spectrum antibiotics in topical creams, powders, ointments, eye and ear drops which explain their relevance in eyelid dermatitis and both of these show cross reactivity with each other.

Potassium dichromate though present mainly in cement which can cause contact dermatitis on eyelids, occasionally is also present in eye makeup. This was positive in 1 patient (1.54%) using facial cream that also showed positivity to balsam of peru. In our present study 1 patient (1.54%) showed positive patch test to parthenium. He was diagnosed as airborne contact dermatitis. Besra et al,⁽¹⁸⁾ in their study on South Indian population found airborne

contact dermatitis to be the commonest cause of periorbital dermatitis in 45.45% patients. The lower incidence in our study could be explained on the basis that majority of our population was urban; and farmers and outdoor workers represented only a small percentage. Moreover parthenium dermatitis presenting as isolated eyelid dermatitis is rare.

In accordance with all the studies done so far on eyelid dermatitis, we found the commonest cause of eyelid dermatitis to be allergic contact dermatitis in 80% patients, followed by atopic dermatitis in 7.69% , followed by seborrhoeic dermatitis in 4.61%, followed by irritant contact dermatitis, psoriasis, tinea. Similar results were observed by Guin et al,⁽¹⁾ Amin et al,⁽²⁾ and Cooper et al.⁽¹⁴⁾

Conclusions

Though contact dermatitis is the commonest cause of eyelid dermatitis, other conditions like seborrhoeic dermatitis, psoriasis, dermatomyositis, rosacea, cutaneous T-cell lymphoma, infections, infestations, urticaria etc should always be borne in mind. The main challenge is to identify the allergens since a number of cosmetics are being used by the patient serially or simultaneously. The use of cosmetics is a long standing practice that extends worldwide and virtually reaches one and all and the trend is only growing, so the problem of eyelid dermatitis needs proper addressal.

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