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Dr. Kapil Mehta
Department of Dermatology, North DMC Medical College & Hindu Rao Hospital, Delhi, India

Corresponding Author:
Dr. Kapil Mehta
Department of Dermatology, North DMC Medical College & Hindu Rao Hospital, Delhi, India

To assess the cases of atopic dermatitis in young patients: A clinical study

Dr. Kapil Mehta

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Abstract
Background: Atopic dermatitis is one of the most common and burdensome diseases of childhood. The present study was conducted to assess the cases of Atopic dermatitis (AD).
Materials & Methods: The present study was conducted on 280 patients of both genders. In all patient type of allergens, age group affected etc. was recorded.
Results: Out of 280 patients, males were 130 and females were 150. Age group <10 years had 140 cases, 10-20 years had 110, 20-30 years had 20 patients and >30 years had 10 patients. The difference was significant (P< 0.05). Potential allergens were jewellery in 110 cases, cloths in 60, shoes in 65 and topical corticosteroids in 45. The difference was significant (P< 0.05).
Conclusion: Atopic dermatitis is commonly occurring skin lesions in adults. Most common age group involved was <10 years.

Keywords: atopic dermatitis, children, allergen

Introduction
Atopic dermatitis (AD), also known as atopic eczema or simply eczema, is one of the most common and burdensome diseases of childhood, yet little is known about the long-term clinical course of the disease [1]. Textbooks and review articles suggest that most individuals develop disease within the first 2 years of life, experience episodic symptoms throughout childhood, and improve by adolescence; yet, sparse and conflicting data exist regarding the proportion of individuals whose disease resolves and little is known about predictors of disease persistence or adult-onset disease [2].
Atopic dermatitis does not only affect children. Although it almost always appears during early childhood and often before the age of two, it does not always disappear before adolescence or adulthood. It is estimated that some 10% of patients continue to suffer from eczema as adults [3] In some cases this eczema is a cause for worry and can bring about complicated problems. Atopic dermatitis in adults is often a serious condition. It involves chronic, red, thick, lichenified plaques, sometimes with isolated pruritic papules. In addition to this chronic eczema, patients experience acute, vesicular or oozing flare-ups. Pruritus is always intense, with knock-on effects on daily life, morale, sleep and activity [4].
The risk that the disorder will be genetically transmitted is increased when the mother is affected. There has been considerable interest in the potential role of chromosome 5q 31-33 as it contains a clustered family of cytokine genes that is IL-3, IL-4, IL-5, IL-13, and GM-CSF, which are expressed by Th2 cells. Case control comparisons have suggested a genotypic association between T allele of the -590C/T polymorphism of the IL-4 gene promoter region and AD. The fact that this allele is associated with increased IL-4 gene promoter activity suggests that it may increase allergic responses in AD [5]. The present study was conducted to assess the cases of Atopic dermatitis (AD).

Materials & Methods
The present study was conducted in the department of Dermatology. It comprised of 280 patients of both genders. All participants were informed regarding the study and written consent was obtained. The study was approved from institutional ethical committee.
Information such as name, age, gender etc. was recorded. In all patient type of allergens, age group affected etc. was recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table I: Distribution of patients

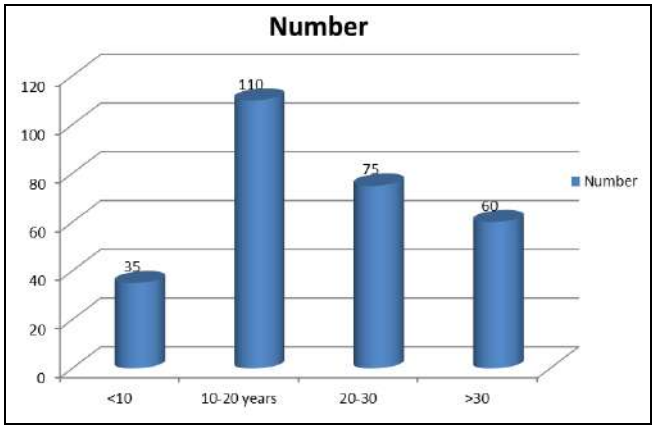
	Total- 280	
Gender	**Males**	**Females**
Number	130	150

Table I shows that out of 280 patients, males were 130 and females were 150.

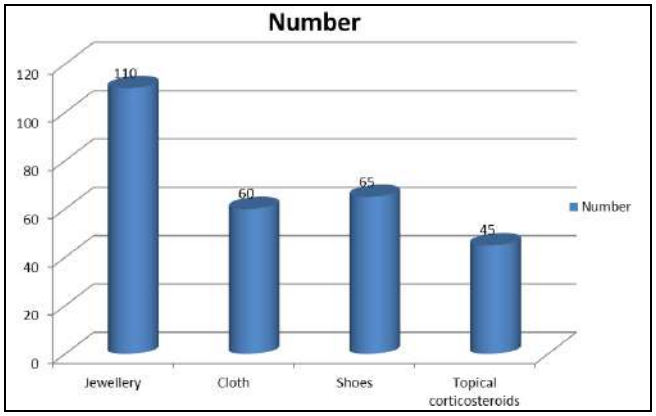
Table II: Distribution of patients based on age group

Age group (Years)	Number	P value
<10	140	0.01
10-20	110	
20-30	20	
>30	10	

Table I, graph I shows that age group <10 years had 140 cases, 10-20 years had 110, 20-30 years had 20 patients and >30 years had 10 patients. The difference was significant (P< 0.05).



Graph I: Distribution of patients based on age group



Graph II: Potential allergens in patients

Graph II shows that potential allergens were jewellery in 110 cases, cloths in 60, shoes in 65 and topical corticosteroids in 45. The difference was significant (P< 0.05).

Discussion

The clinical course of AD has been particularly challenging to study because the condition is heterogeneous and intermittent. Individuals have different clinical presentations, and many will have periods without symptoms or skin lesions. Clinical trials generally focus on short-term disease control, and cross-sectional studies offer a snapshot of the population and hence cannot be used to generate prognostic information for individuals. An association between a specific polymorphism in the mast cell chymase gene and AD that has no association with asthma or allergic rhinitis has been identified. This finding suggests that a genetic variant of mast cell chymase, which is a serine protease secreted by skin mast cells, may have organ specific-effects and contribute to the genetic susceptibility for AD. AD has also been associated with a low producer transforming growth factor beta cytokine genotype [6].

Because transforming growth factor beta is an important regulatory gene that down-regulates T cell activation, a low production genotype may contribute to increased skin inflammation. In adults, the disease affects different areas of the body compared to infantile manifestations. The hands, face and especially the eyelids are most often involved, as well as large skin folds and sometimes other areas. Inflammatory flare-ups can affect skin all over the body. This is called erythroderma. These widespread conditions are serious, and can become more complicated when infections and metabolic disorders develop. They require hospitalization [7]. The present study was conducted to assess the cases of Atopic dermatitis (AD).

In present study, out of 280 patients, males were 130 and females were 150. Age group 20-30 years had 35 patients, 30-40 years had 110, 40-50 years had 75 and >50 years had 60 patients.

Abuabara *et al.* [8] found that the point prevalence, 1-year prevalence and lifetime prevalence of AD in Japanese adults were 2.9%, 3.0% and 3.3%, respectively. No significant statistical differences were observed between the sexes or among age groups within each sex. The survey indicated that 88.6% of those who had ever had AD were currently affected by active AD, while 93.4% of those who had had at least one episode of AD in the past had experienced an episode over the previous year.

We found that potential allergens were jewellery in 110 cases, cloths in 60, shoes in 65 and topical corticosteroids in 45. When atopic dermatitis does not react favourably to treatment, any additional allergic contact eczema should be investigated. This is a difficult diagnosis, since contact eczema can go unnoticed in patients with chronic eczema. It is, however, a cost-effective diagnosis, since eliminating the root of the contact allergy improves the eczema. The main causes of allergic contact eczema are nickel contained in costume jewellery, glasses frames; cell phones in particular; preservatives, (especially isothiazolinones) wipes, cosmetics, cleansing products; more rarely, other cosmetic ingredients such as fragrances or some sun filters [9].

The diagnosis of AD can easily be made based on family history and clinical examination. If necessary, a practical set of diagnostic criteria such as the UK diagnostic criteria can be used [10]. During the diagnostic phase, it is important to pay attention to atopic comorbidity, such as allergic airway disease (allergic asthma and/or rhinitis), allergic eye disease (atopic (kerato) conjunctivitis) and immediate-type food allergy. This will not have direct consequences for the treatment of AD, but may be important for the overall well-being of the patient. Psychological factors, such as family circumstances, work/school performance and lifestyle factors should also be explored [11]. Severity scoring using properly validated scoring lists may not be necessary for the diagnosis, however, is recommended for monitoring therapy. Simple scoring systems, such as TIS and IGA are

easy to perform in daily practice. Several flare factors in AD, such as exposure to irritants or UV light, can be identified by history and clinical examination: in individual cases, additional diagnostic tests may sometimes be useful to confirm clinical suspicion. There is only limited evidence that allergen exposure to aeroallergens and/or food allergens influences AD severity [12].

Conclusion

Atopic dermatitis is commonly occurring skin lesions in adults. Most common age group involved was <10 years.

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