



Eczema of infancy and childhood

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Abstract

Background: Eczema of infancy and childhood is one of the common dermatological diseases in Iraqi patients for this reason this study was arranged.

Objective: To assessment of an epidemiological study aimed at characterization of different clinical aspects of eczema in children and in infants in Iraqi population.

Patient and Methods: A total number of tow hundred and fifty patients was seen and studied in the department of dermatology / Medical City Baghdad, FROM December 2013 to April 2014. They were 131 males and 119 female. Their ages ranged from 2 weeks to 12 years, mean age 4.43 years with mean age of onset was 3.65 years.

A detailed history was taken from each patient with emphasis on the following relivant points: age, age of onset, sex, family history of atopy, personal history of atopy, history of food allergy, any associated diseases and any seasonal variations.

All patients were fully examined regarding the type, morphology and distribution of the lesions in each type of eczema including: Atopic dermatitis, discoid eczema, pityriasis Alba and seborrhoeic dermatitis. The type of feeding whether breast, bottle or mixed feeding was assessed in all types of eczema.

Results: A total number of 250 children with various types of eczema was seen. their ages ranged from birth to 12 years with a mean age (4.43) years and mean age of onset 3.6 years, male 131 (52.4 %), female 119 (47.6%) with male: female ratio (1.1:1). Each type of eczema had its mean age and mean age of onset as: atopic dermatitis was 5.2 yr, 3.9 yr infantile group of AD 1.06 yr, 1.26 yr, childhood phase of AD 6.6 yrs, 4.8 yrs. Discoid eczema 4.3 yrs, 3.2 yrs, pityriasis Alba 7.9 yrs, 7.4 yrs, seborrhoeic dermatitis, 4.3 months and 1.6 months. The incidence of these various type is as follows: Atopic dermatitis 140 (56%), discoid eczema 46 (18.48%), pityriasis Alba 40 (16 %) and seborrhoeic dermatitis was 14 (5.6%). The family history of atopy was significantly high in all types of eczema 64.2 %, discoid eczema 65.2%, pityriasis alba 40 % and seborrhoeic dermatitis 64.2%, compared to the control group 23 %.

Conclusion Eczema of infancy and childhood is one of the common dermatological diseases. Atopy dermatitis was the commenst. The family history of atopy was significantly high in all types of eczema.

Keywords: eczema, response, skin

Introduction

Eczema is a pattern of inflammatory response of the skin which can be defined histologically by the presence of apredominantly lympho _ histiocytic infiltrate around upper dermal blood vessels, associated with spongiosis and varying degrees of acanthosis. The clinical features of eczema may include, itching, redness, scaling and clustered papulovesicles ^[1]. The condition may be induced by awide range of external and internal factors acting singly or in combination ^[2].

Classification ^[2]

Eczema can be classified as follows:

Exogenous: like contact dermatitis.

Endogenous eczemas which include.

1. Atopic dermatitis.
2. Seborrhoeic dermatitis.
3. Discoid eczema.
4. Pityriasis Alba.
5. Juvenile planter dermatosis.
6. Peri _oral eczema.
7. Hand eczema.
8. Frictional dermatitis of children.

Atopic Dermatitis (AD)

AD is a chronic pruritic inflammation of the skin ^[1], genetically determined in which there is an increased liability to from ige (regain) antibodies and an increased susceptibility to certain diseases, especially asthma, hay fever and atopic dermatitis, in which such antibodies may play some role ^[2]. Its diagnosis and aetiopathology are dominated by controversies, because of the complex interrelationship between its morphology and genetic, physiologic, and immunologic factors which seem to be involved in the presentation ^[2].

The fundamental defects remain largely unknown. The production of clinical disease, depend on the interplay of numerous constitutional and precipitating factors, the individual has an inherently irritable skin: that itching and scratching are responsible for many but not all of the objective changes and may be modified by psychological, climatic and, in some cases, by immunological factors ^[2].

AD is chronic fluctuating disease which may occur at any age ^[2], characteristic pruritus, which is elicited by complex etiological factors, is the cardinal feature of the disease, with itch, papules, lichenification, these changes may be present in any combination in an atopic individual can vary from time to time ^[1].

Management here is complex and should include

1. Explanation, reassurance and encouragement.
2. Avoidance of irritants e. g woolen clothing and later carears, such as hair dressing and engineering, which would inevitably lead to much exposure to irritants.
3. Judicious use of topical steroids and other applications as for other types of chronic eczema.
4. Regular use of bland emollients, either directly to the skin or in form of oils to be used in the bath.
5. Scratch/itch cycle can often be interrupted by occlusive bandaging e g with in ichthamol past.
6. Sedative antihistamines e.g trimeprazine or hydroxy zinc are of value if sleep is interrupted.
7. Those with active herpes simplex infections should be avoided to cut the risk of developing eczema herpeticum [3].
8. Cow milk and egg should be avoided for first six months of life by children with a risk of developing atopic eczema the role of diet is debatable and often is minimal [3].
9. Topical psoralen photo chemotherapy for AD. The PUVA induced systemic immune modulation can alter the I g E over production seen with AD. The low stratum corneum water holding capacity did not return to normal after PUVA therapy even though, clinically the patient improved [4].
10. Cyclosporin maintenance therapy for severe atopic dermatitis with carries the some risk of side effects that is seen in the treatment of psoriasis, long treatment require close monitoring [4].
11. Breast feeding, there are claims that breast fed infants are less likely to suffer from eczema [5]

Patients & Methods

A total number of two hundred and fifty patients was seen and studied in the department of dermatology / Medical City Baghdad, FROM December 2013 to April 2014. They were 131 males and 119 females. their ages ranged from 2 weeks to 12 years, mean age 4.43 years with mean age of onset was 3.65 years. A detailed history was taken from each patient with emphasis on the following relevant points: age, age of onset, sex, family history of atopy, personal history of atopy, history of food allergy, any associated diseases and any seasonal variations. All patients were fully examined regarding the type, morphology and distribution of the lesions in each type of eczema including: Atopic dermatitis, discoid eczema, pityriasis Alba and seborrheic dermatitis. The type of feeding whether breast, bottle or mixed feeding was assessed in all types of eczema.

Results

Two hundred and fifty children with various types of eczema were studied (table 2.3), their ages ranged from 2 weeks-12 years, male patients 131 (52.4 %), female 119 (47.6 %), mean age 4.43 years and mean age of onset 3.6 years. Atopic dermatitis was the commonest, total number 140 (56 %), their ages ranged from 2 weeks-12 years mean age 5.24 years, SD 3.5 yrs with mean age of onset 3.95 yr, with SD 3.1 yrs male: female ratio (1.09:1), family history of atopy was 90 (64.2 %), with personal history of atopy 23 (16.4 %). the distribution of atopic dermatitis was mainly of diffuse type and were located in, face 75 (53.5 %), extensors 65 (46.4 %), flexurals 51 (36.4 %) scalp 20 (14.2%) Dennie-Morgan fold present in 40 (28.5 %) and palmoplantar

keratoderma was seen in 9 (6.4 %). Regarding the type of feeding during infancy was breast feeding in 110 (78.5 %), bottle feeding children 23 (16.4 %) while those with mixed feeding 17 (12.1 %). Nail changes were seen in 14 (10 %) which were mainly in form of nail pitting. Keratosis pilaris lesion found in 18 (12.8 %), retro auricular fissuring and dermatitis was found in 12 (8.5 %). History of food allergy, was present in 18 (12.8%), were mainly to sweets, tomato spicy food and egg. The clinical picture according to the age of onset was divided into infantile and childhood type.

Discoid eczema

Their total number were 46 (18.4%) their ages ranged from 2 weeks to 12 yr, mean age 4.38 yrs SD 3.2 yr with mean age of onset 3.22 yr, SD 2.9 yrs female 26 (56.5 %) and male 20 (43.2 %) with female: male ratio was (1.3: 1) family history of atopy were 30 (65.2%) with personal history of atopy 3 (6.5 %). the rash was mainly well defined discoid patches and were present in extensors of the limbs 42 (91.3%), face 20 (43.4 %), while flexors 16 (36.1%), Dennie-Morgan fold were seen in 16 (34.7%) and nail changes in 4 (8.7 %).

Pityriasis Alba

The total number were 40 (16 %) patients, their ages ranged from 2.5 year – 12 year, with mean age of onset 7.4 yr, SD 3.2 yrs, male 30 (75 %), female 10 (25 %) and male: female (3:1), family history of atopy was 16 (40%), while personal history of atopy 9 (22.5 %). The rash was well defined hypopigmented patches were mainly present in, face 38 (95 %), limbs 4 (10 %) and Dennie-Morgan fold were present in 4 (10 %).

Seborrheic dermatitis

The number were 14 (5.6%), their ages ranged from 1.5 months – 12 months, with mean age 4.3 months, SD 3.2 months while the mean age of onset 1.6 months, SD 2.7 months, male 5 (35.7 %), female 7 (64.2 %), with female / male (1.8:1). family history of atopy was positive in 9 (64.2 %), with personal history of atopy 4 (28.5%). The sites which mainly involved with seborrheic dermatitis were, napkin area 14 (100 %), face 12 (85.7 %), scalp 10 (71.4 %), axillae 10 (71.4%), trunk 6 (42.8 %) and the limbs 4 (28.5%). Regarding the other types of dermatitis were encountered in practice: contact dermatitis which include (mainly contact to metals), number of patients 5 (2 %) their ages (9 months, 2 years, 3 years and two patients of 4 years age, peri oral dermatitis, number of patients 3 (1.2 %) their ages (2 year, 3 years and 6 years). Juvenile plantar dermatosis was seen in 2 patients (0.8%) their age 5 years and 6 years and one of those patients had positive family history of atopy.

Discussion

Eczema of infancy and childhood is a major dermatological problem in this country, which cause psychological tension for parents and their children, because it is a chronic disease and usually characterized by remission and exacerbation so this study arranged to establish the incidence and clinical aspects of different types of eczema in infants and children [1].

Atopic dermatitis

The age and mean age of onset of infantile type was 1.06 year, 0.79 year while the reported age was 6 wk-2 yr [2], the age and age of onset of childhood phase was 6.6yr, 4.8 yr, while the

reported age was 18 months and above [2].

The family history of atopy was found to be high, this is similar to other studies. The character and distribution of the rash of infantile type was commonly found in childhood phase. Plamo-planter keratoderma was found in 6.4 % of patients with atopic dermatitis of diffuse type with fissuring, this finding was not noticed in the previous reports, but hyperlinearity of palms have been recorded.

Retro auricular dermatitis and fissuring was present in 8.5 %, such high figure was not encountered in the literature. Keratosis pilaris like lesions was present in 12.8% while generalized dryness with ichthyotic skin found in 28.5 % and this is similarly was reported but without estimating incidence.

Discoid eczema

This disease has not been stressed upon in literature and even might be not mentioned as a part of eczema in children, in this country discoid eczema was very common as accounted for the second type of eczema in infants and children. Family history of atopy was found high 65 % so discoid eczema in infants and children, could be aspecial manifestation of atopy that clinically should be differentiated from ordinary atopic dermatitis.

Pityriasis alba

PA is a common disease in many countries including Iraq, it is considered a superficial nonspecific dermatitis [2], although it could be part atopic mafestation as it was found that family history of atopy 40 %.

The mean age of affected patient found to be 7.9 yr, while mean age of onset was 7.4yr, this is was comparable with previous study, while sexes has repoeted to be equal [2], in contrast with the present study were male: female ratio was 3:1.

Seborrhoeic dermatitis

It was also found to be common skin disease among infants 5.6 %, its relation to atopic dermatitis has been linked and a subject of debated for many years, the present work had found family history of atopy was high 64.2 % among affected patients and this encourage us to think that seborrheic dermatitis could be a manifestation of atopy

Conclusions

Eczema of infancy and childhood is one of the commom dermatological diseases. Atopy dermatitis was the commenst. The family history of atopy was significantly high in all types of eczema.

References

1. Fitzpatrick Irma, Gigli MD, Rudolf Bear MD. Atopic Dermatitis. Chapter 60, Dermatology in General Medicine. Second edition, 1979, 520-526.
2. Rook A, Champion RH, WE Paprish. Atopic dermatitis textbook of dermatology, vol. 1, fourth edition. Blackwell scienstific publications, 1986, 419.
3. Hunter JAA Eczema. Dermittitis: in clinical dermatology 1st Ed. Black Well Scientific Pullication, 1989, 71.
4. Korppi L, Remes K, Atopic dermatitis, year book of dermatology, chapter 5, 1992.
5. Uehara MAD. Arch. dermatol. 1981; 117:627-629.
6. The Jou RNOL of Pediatrics. Jan, 1965.