Eczema in North West of Libya

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Abstract: The life style and demographic structure of Libyan society is changing, and this could affect the epidemiology of certain diseases, including eczema. The aim of this study was to assess the burden of eczema among a selected patient population in the Zliten area in the northwest of Libya. We conducted a retrospective study by reviewing case notes and records in public and private dermatology practices in the Zliten area. The frequency of eczema among patients attending dermatology clinics in the Zliten area was 12.8%, and the male to female ratio was almost 1:1. The most affected age group among patients was 20-29 years. Eczema represented a larger proportion of dermatologic conditions during spring and summer. Of all cases of eczema, 72.6% were endogenous and 24.9% were exogenous ($p<0.001$). The most common type of eczema was contact dermatitis (22.7% of all cases), followed by atopic dermatitis (19.7%) and pityriasis alba (10.5%). In conclusion, eczema is a public health problem in Zliten-Libya, and this necessitates prospective studies to determine its incidence and prevalence.

Key words: Eczema, Atopic dermatitis, Zliten, Libya.

Introduction

Eczema is an inflammatory skin reaction characterized histologically by spongiosis with varying degrees of acanthosis. The term "eczema" means to "boil over" [1]. Classification of eczema is difficult because of many different clinical forms and unknown etiology [2]. However, eczema is divided into two groups; exogenous eczemas, e.g. contact dermatitis, are related clearly to defined external triggering factors, although inherited tendencies can also play a part, whereas endogenous eczema, e.g. atopic dermatitis, seborrhoeic dermatitis, is not a result of exogenous or external environmental factors, but is mediated by processes originating within the body [3].

Zliten is located in the northwest of Libya, and its population is about 170,000. There is only one general district hospital (with a dermatology clinic) and two private dermatological practices in the area.

No data has been reported so far about the prevalence of eczema in Libya. Therefore, the aim of this study was to provide preliminary data about the burden of eczema among Libyan dermatologic patients by assessing the following: the proportion of various types of eczema, the distribution of eczema according to gender and age, and its incidence according to the month or season.

Materials and Methods

This retrospective case study describes the clinical patterns of endogenous and exogenous eczema in patients seen in three dermatology clinics in the Zliten area (Zliten Central Hospital Dermatology Clinic and two private practices) from 1st January 2006 to 31st December 2006. The study also describes the clinical pattern of eczema, its relation to age and gender of patients, and its seasonal variation. Diagnosis of eczema was based on internationally accepted criteria for the diagnosis of atopic dermatitis based on clinical features of the disease. The UK original criteria is that to make the diagnosis of atopic dermatitis in presence of itch for the preceding 12 months is required plus two or more of flexural dermatitis, onset before the age of two years , a personal history of asthma or hay fever, and dry skin [4].

The diagnosis of cases was mainly clinical but skin scrapings and biopsies were taken and examined in doubtful cases. All data was coded, stored and analyzed by SPSS (Statistical Package for the Social Sciences). Chi-square test was used to detect statistical significance. The p-value of < 0.05 was considered significant.

Results

We screened 8,228 dermatologic patient records, out of which 1055 (12.8%) were found to be affected by at least one type of eczema. Eczema affected all age groups, including infancy, but its contribution declined after the fifth decade of life (Fig. 1). Female male to ratio was 1.02:1

Seasonal variation

The number of eczema cases was higher from March to August, after which it declined to reach the lowest point in January (Fig. 2). Unexpectedly, the number of cases in July was lower than in the adjacent months. The number of cases in spring and summer months combined (from March to August) significantly higher than those in winter and autumn months combined (from September to February) ($p<0.01$).

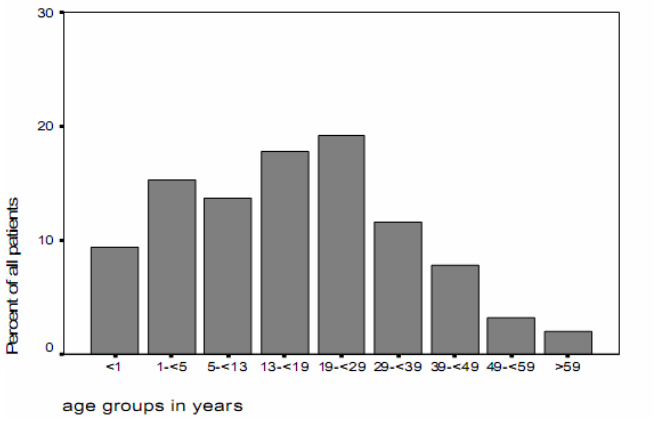

Figure 1 Age distribution of patients

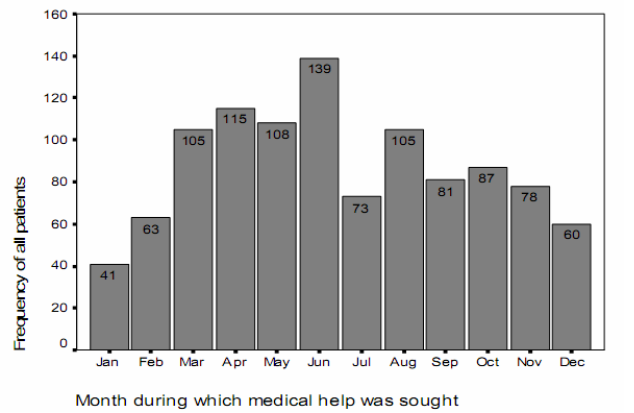

Figure 2: Monthly variation of the contribution of eczema to dermatologic conditions

Eczema classification

Endogenous eczema was far more common than exogenous eczema (72.6% versus 24.9%, respectively, p<0.001); 2.5% of cases were unclassified.

Types of eczema

The most common type of eczema was contact dermatitis (22.7%) while asteatotic eczema was the least frequent type (0.7%). Other types included pityriasis alba (10.5%), and hand eczema (9.1%) (Table 1).

Table 1: Frequencies of different types of eczema

Type of eczema	Number of cases	Percent
Discoid eczema	36	3.4
Atopic dermatitis	208	19.7
Seborrhoeic dermatitis	181	17.2
Asteatotic eczema	7.0	0.7
Pityriasis alba	111	10.5
Hand eczema	96	9.1
Juvenile plantar dermatosis	15	1.4
Contact dermatitis	240	22.7
Photoallergic contact dermatitis	10	0.9
Polymorphic light eruption	10	0.9
Dishydrotic eczema	53	5.0
Unclassified	26	2.5
Lichen simplex chronicus	62	5.9
Total	1055	100.0

Discussion

Eczema is an important public health problem. In a survey carried put on a representative sample of over 20,000 people in the US, the prevalence of all forms of eczema was found to be 1.8% [5]. A study in the UK examining the details of 6819 dermatological consultations of 3500 in a general practice from 1958 to 1985 showed that eczema patients comprised 19% of the consultations [6].

Certain patterns of eczema are commonly seen in particular age groups. Most cases of eczema that are seen in infants and young children are atopic in type. Discoid eczema occurs particularly in elderly males in winter, and asteatotic eczema of the legs is common among both elderly males and females [7].

In an investigation of the pattern of endogenous eczema in the Northern frontier, Kingdom of Saudi Arabia, 1224 patients were studied over a three-year period from January 1991 to December 1993 [8]. Atopic eczema was the most common type of endogenous eczema, with male to female ratio was about 1.1:1, which is similar to our findings. Our study is in agreement with both of these findings. In the Saudi study, seborrheic eczema occurred in 18% of patients, Lichen simplex in 3.4%, Pityriasis Alba in 2.2%, and

Pompholyx in 2% [8], while in our study in Zliten, Libya, the respective frequencies were 17.2%, 5.9%, 10.5% and 0.9%. Whereas in our study eczema accounted for 12.8% of dermatologic conditions, in Egypt it accounted for 19.8%, and Pityriasis alba was the most common eczema (13.5%) [9], as compared to 10.5% in our study.

Hand dermatitis in the UK accounted for 15% of dermatologic conditions, check carefully while in Zliten it accounted for 9%. However, in Zliten contact dermatitis is much more common (22.7%) than in Ipswich, UK (12%) [6], and the higher frequency in Zliten could be attributed to the rapid change in life style among Libyans, and specially those living outside the major cities. Use of medically unapproved body cleansers, e.g. hair and face lotions or cosmetics of unknown brands imported from China or Arab countries is common. There is also a cement factory in the Zliten area, which likely contributes to the increasing rate of this type of dermatitis.

This hospital-based study provides some evidence that eczema is becoming a common public health problem requiring a proper strategy for care and prevention. Epidemiological studies at the community level are needed to determine the incidence and prevalence of this important skin problem in Zliten and in other Libyan cities.

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