

Classification of eczema in Al-Anbar governorate, clinical and epidemiological study

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ABSTRACT

The goal of this study was to know the prevalence of eczema in 437 Iraqi patients as well as to identify the most common clinical types of eczema. A study was conducted on 437 patients of various ages and sexes who had various types of eczema affecting their skin for a period spanning January 2018 to March 2020 in Iraq's Anbar Governorate. After clinical and laboratory diagnosis of skin eczema, the lesions were classified into different types of eczema. Our findings revealed highly significant differences in the percentages of various types of skin eczema, with 36.3% atopic hand eczema, 33.3% allergic contact dermatitis, 14.6% hyperkeratotic endogenous eczema, 8.2% vesicular endogenous eczema, and 7.6% irritant contact dermatitis recorded. Our findings revealed a prevalence of chronic skin eczema of 80.3% and acute skin eczema of 19.7%. From this study, we can conclude that, eczema is a real problem in the Al-Anbar governorate of the Republic of Iraq, and more research is needed to develop a suitable treatment and investigate the causes.

Keywords: Chronic eczema, acute eczema, Al-Anbar governorate and skin

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1. Introduction

Eczema has been found in clinical practice as one of the most common dermatological conditions, most often in cool and damp regions. Normally, it lasts for a long time [1-4]. The average period was 11 to 6 years from the time of initial manifestation to the time of clinical evaluation [1]. Multiple risk factors (endogenous factors, such as an individual's susceptibility and sensitivity, and exogenous ones, such as the contact irritants and allergens) interact to influence its formation [5]. It is shown to be more prevalent in women and younger populations [6]. Eczema is assessed to have a point frequency of roughly 4% in the general population [7,8]. Patients with eczema may have chronic eczema, with eczematous lesions persisting long after the major factors causing eczema have been avoided [9]. This kind of eczema occurs when many variables combine to create it. Causal factors are seldom, if ever, eliminated [10-12]. Of the signs and symptoms associated with eczema, erythema, edema, vesiculation/blistering, hyperkeratosis, fissuring, itching, and pain are all common. [12-14]. A common therapy for patients with persistent eczema is emollients and topical corticosteroids, along with the avoidance of irritants and allergens. In very severe instances, however, standard treatment is ineffective [9]. Overall, the incidence of chronic eczema is estimated to be between 0 to 7 per 1,000 individuals per year in high-risk occupational categories [15,16]. About 5–7% of all individuals with hand eczema are patients with severe persistent eczema. [17]. This study intends to find out how prevalent eczema is among 437 Iraqi individuals and to identify the most common eczema diagnoses.

2. Materials and methods

A study was conducted on 437 patients of different ages and sexes who visited our private clinic, suffering from different types of eczema affecting their skins for a period spanning January 2018 to March 2020 in Iraq's Anbar Governorate.

All patients involved in the study were tested using the standard patch test provided by the manufacturer, as well as goods supplied by the patient and extra tests as indicated by clinical suspicion. Patch reactions were observed at 48 and 96 hours and scored using the International Contact Dermatitis Research Group's criteria (ICDRG). The conclusive diagnosis was made using epicutaneous testing, epidemiological and clinical criteria, and the Agner et al. eczema classification [18].

3. Analytical statistics

To examine the impact of different factors on research parameters, the Statistical Analysis System-SAS (2012) application was utilized. In this study, the Chi-square test was utilized to make a statistically significant comparison between percentages [19].

4. Results

Our study found different types of skin eczema in different people, including atopic hand eczema (36.3%), allergic contact dermatitis (33.3%), hyperkeratotic endogenous eczema (14.6%), vesicular endogenous eczema (8.2%), and irritant contact dermatitis (7.6%), with statistically significant differences between them as in Table 1.

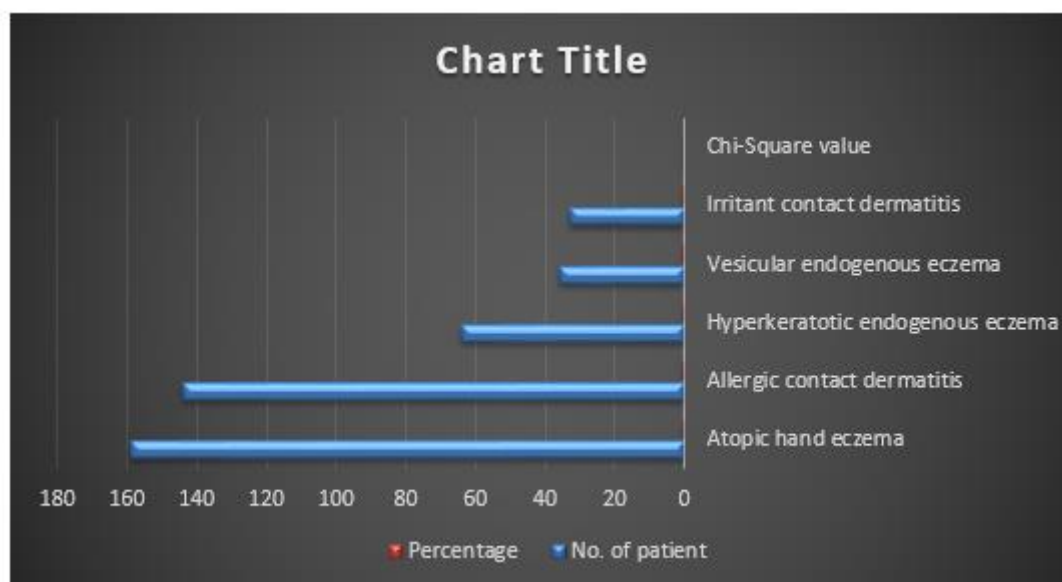


Figure 1. Eczema groupings

Table 1. Eczema classification in 437 Anbar government patients

Type of eczema	NO. of patient	Percent
Atopic hand eczema	159	36.3%
Allergic contact dermatitis	144	33.3%
Hyperkeratotic endogenous eczema	64	14.6%
Vesicular endogenous eczema	36	8.2%
Irritant contact dermatitis	33	7.6%
Chi-Square value	----	36.9**
** Significant at P<0.01		

In Table 2 and Figure 2, there was a highly significant ($P>0.01$) difference in the prevalence of chronic skin eczema, which was recorded at 80.3% versus 19.7% for acute skin eczema.

Table 2. Prevalence of acute and chronic skin eczema in 437 patients

Eczema	No.	Prevalence
Acute skin eczema	86	19.7%
Chronic skin eczema	351	80.3%

Eczema	No.	Prevalence
Total	437	100%
Chi-Square value	----	36**
** Significant at P<0.01		

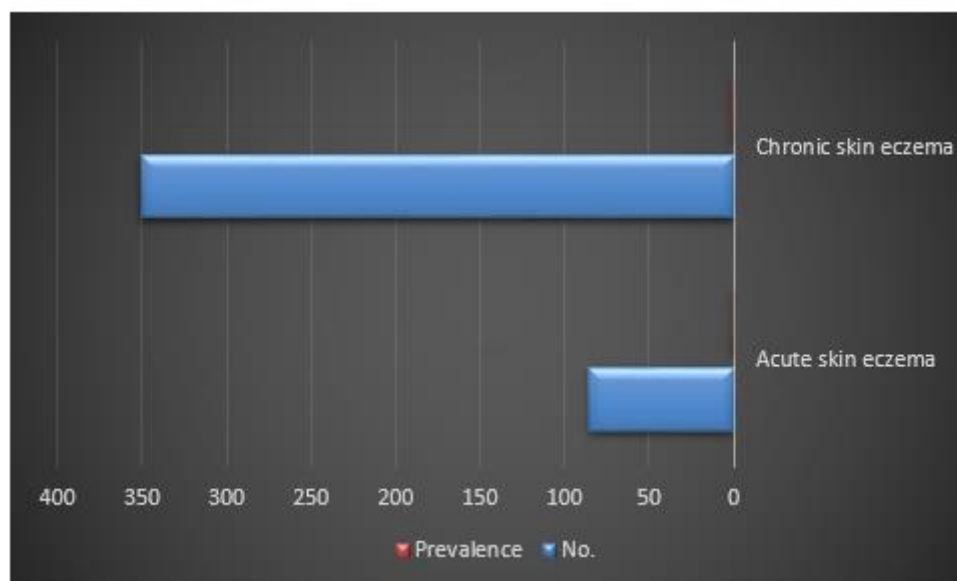


Figure 2. Pervasiveness of acute and chronic skin eczema for patients

5. Discussions

This is the first clinical and epidemiological study in Iraq about classification of skin eczema. Results of our study recorded different types of skin eczema in different percent and included; atopic hand eczema (36.3%), allergic contact dermatitis (33.3%), hyperkeratotic endogenous eczema (14.6%), vesicular endogenous eczema (8.2%) and irritant contact dermatitis (7.6%) and the differences were statistically significant amongst the different percent. This finding is agreed with finding of Salvador et al, 2018 [30] whom obtained 35.7% atopic hand eczema, 33% allergic contact dermatitis, 11.9% hyperkeratotic endogenous eczema and 4.8% irritant contact dermatitis. Our results recorded 80.3% Prevalence of chronic skin eczema and 19.7% Prevalence of acute skin eczema. This result is nearly similar to finding of Scalone et al, 2015 [31] whom recorded 83.5% Prevalence of chronic skin eczema and 16.5% Prevalence of acute skin eczema. The study can be investigated more along with [20-29] and probable significant findings can be acquired.

6. Conclusions

Eczema is a real problem in the Al-Anbar governorate of the Republic of Iraq, and more research is needed to develop a suitable treatment and investigate the causes.

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