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## Frequency Assessment of Dermatologic Diseases in Patients Admitted to Shiraz Referral Dermatology Ward, Southern Iran During 2008-2011

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### Abstract

**Background:** As an early and accurate diagnosis of all diseases, including skin disorders directly influences the duration of treatment and its costs, which may be a significant burden, it is very important for physicians to be familiar with all types of diseases, especially those with a higher incidence in a given population. Considering the fact that disease patterns vary from region to region and there is no demographic data on patterns of skin diseases in Fars Province, we aimed to assess the frequency of skin diseases in admitted patients to Dermatology Ward of Shahid Faghihi Hospital. **Materials and Methods:** Medical records of 1450 patients, who completed a questionnaire during the years 2008 to 2011, were evaluated in this retrospective study. Demographic data and diagnoses of skin diseases were analyzed by SPSS software and classified according to International Classification of Diseases (ICD-10). **Results:** Pemphigus (12.5%), drug rash (11.7%) and eczema (10.5%) were the most common causes of referral to dermatology ward. The mean age of patients was  $41.89 \pm 20.79$  and the average length of hospitalization in this study was 9.34 days. **Conclusion:** High occurrence rate of Pemphigus and drug rash indicates that further study is required to root out underlying causes. Proper health policies should be implemented to manage these diseases. [GMJ. 2015;4(1):50-52]

**Key words:** Skin Diseases; Pattern; Inpatient; Frequency; Shiraz; Iran

### Introduction

There are more than a thousand skin diseases that Dermatologists are confronted with in their career [1]. Given the complications that skin disorders may cause and the significant burden that they put on individuals' health, it is of utmost importance for dermatologists to be aware of all skin disorders, especially those with a higher incidence in

population. Different factors such as genetics, environment and nutrition can affect distribution of skin disorders; therefore, disease patterns vary from country to country and even city to city [2]. Although most skin diseases are treated through outpatient basis and dermatology is predominantly considered as an outpatient-based specialty, some of these patients can be referred by their physicians to hospitals [3]. Considering lack of statisti-

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cal data in the field of skin diseases leading to hospitalization in Fars province and inaccessibility to information in this area, that is particularly important for planning and policy, the main objective of this study was to assess the frequency of skin diseases in admitted patients with respect to demographic data.

### Materials and Methods

This study was carried out during the years 2008 to 2011 on patients referred to Shiraz Referral Dermatology Ward, Southern Iran, Shiraz University of Medical Sciences, with a total of 1450 cases as a cross-sectional retrospective analysis. In this study, skin diseases such as pemphigus, drug rash, acne, eczema, zoster, psoriasis, urticaria and angioedema, cutaneous leishmaniasis, erythema multiforme, chicken pox, pyoderma, fungal infections, bites, pemphigoid, skin anomalies, chronic ulcers, pruritus, skin cancer, collagen vascular diseases, herpes simplex infection, lichen planus, erythema nodosum and peripheral vascular disease were investigated. A questionnaire was designed for admitted patients, including age, sex, marital status, occupation, place of residence, date of admission, type of illness, duration of hospitalization and Insurance type. Patients were examined by a team of dermatologists and the final diagnoses were classified according to International Classification of Diseases (ICD-10). Statistical analysis of collected data was performed by SPSS (Version 15) software.

### Results

Of 1450 medical records, 790 cases (54.5%) were female and 660 cases (45.5%) were male. Most admissions were generally due to pemphigus (12.5%), drug rash (11.7%) and eczema (10.5%). Chronic wounds with 26.17 days had the highest average length of stay in the hospital followed by pemphigus with 18.88 days. The mean age of patients was  $41.89 \pm 20.79$  and of all patients, 27.7% were single and 67.8% were married. Housewives made up the largest percentage of the cases (42.5%). The most prevalent diseases in females were pemphigus (14.3%), urticaria and

angioedema (13.7%), drug rash (11.8%) and eczema (9.6%). The most common diseases in males were psoriasis (13.3%), eczema (11.5%), drug rash (11.5%) and pemphigus (10.9%). The percentage of unemployed patients in this study was 1.6%.

### Discussion

Gender distribution of patients in this study reveals a female predominance, considering (54.5%) of total female cases and (45.5%) males, which is coordinated with some other studies investigating patterns of admissions for dermatological diseases in some Iranian provinces, and also with some other statistics carried out outside Iran [4,5,6,7]. Although the most common disease in this study was pemphigus (14.3%), bullous diseases (39.92%) were the most prevalent skin diseases among patients who were referred to Razi Hospital in Tehran. In another study conducted in South Africa atopic dermatitis was on top of skin diseases and in Cairo Hospital infections account for most of dermatoses. The increasing and alarming rate of pemphigus as an autoimmune bullous disease in recent years in Iran in comparison to previous studies in Tehran (8 years ago) and Kerman (15 years ago) raises the possibility of an environmental factor such as stress, diet or agricultural pesticides. On the other hand, numerous cases of drug rash in this research comparing to other statistics is an alerting sign can be caused by different factors such as arbitrary use of drugs or an increase in prescribed medications which requires a careful review [4].

Comparing age distribution, the mean age of patients in our study was  $41.89 \pm 20.79$ . The mean age of admitted patients in Razi Hospital in Tehran was  $44.03 \pm 19.15$  years which includes the same age group. However, contradictory statistics are obtained in other studies, including a mean age between 23 and 34 years [4,6,8,9,10].

The average length of patients' hospitalization in this study was 9.34 days (ranging from 1 to 237). Although the majority of patients in Razi Hospital study were hospitalized for 22.79 days, in another study conducted by Raza et al in Pakistan, similar rates were re-

ported for the mean hospital stay [4,8]. Despite consistency in the mean duration of hospital stay in this study and previous ones, given the current trends in reducing economic burden and treatment costs, borne by the government, future policies should be towards reducing the length of hospitalization.

With regard to the statistical distribution of skin diseases in different jobs, housewives (45.5%) formed the highest percentage of patients and agricultural jobs had the lowest percentage among other jobs (1.6%) and this may be associated with their referrals.

Contrary to the results of some studies that have reported an increase in the severity of skin diseases due to unemployment, the percentage of unemployed patients in this study was low (1.6%). Moreover, it can be concluded that low records of unemployed people who were admitted to hospital is related to their low financial capability.

Due to disparate distribution of skin diseases in Fars Province, regarding the fact that most of Leishmaniasis and Zoster cases are observed in the North and most of pemphigus and psoriasis cases come from the South of province, an epidemiologic study with proper

methodology is a necessity of health plans in Fars Province.

### Conclusion

Based on statistics obtained, the highest bed occupancy is associated with pemphigus and drug rash, therefore identifying and eliminating the associated factors are needed. Also, despite consistency between average length of hospital stay in this study and other studies, there is a need to reduce the duration of stay to reduce treatment costs.

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### Conflicts of interest

Authors declare that they have no conflicts of interest.

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