

PATTERN OF SKIN DISEASES AT KING KHALID NATIONAL GUARD HOSPITAL: A 12-MONTH PROSPECTIVE STUDY

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The aim of this study was to review the pattern of skin diseases seen in the Dermatology Clinic at King Khalid National Hospital, Jeddah, a major hospital in the Western region of Saudi Arabia, during a 12-month period from July 1997 to June 1998. Jeddah is the major city in the Western region, with an approximate population of two million. The city is located on the Red Sea, and has a hot climate, with daily temperatures ranging from 15-43°C. throughout the year, with high humidity at times and only occasional rainfall. The King Khalid National Guard Hospital is one of the major government hospitals in the region catering for national guard military personnel and their families, as well as non-national guard patients. The hospital offers secondary and tertiary care, and is equipped with modern sophisticated facilities.

Materials and Methods

This was a prospective study that included all new patients attending the Skin Clinic at King Khalid National Guard Hospital during the study period. All patients were seen by consultants and specialists. The diagnosis in each case was based on clinical findings, and histopathological examination of skin biopsies where necessary. The diseases were classified into nine major groups, according to the ninth revision of the International Classification of Diseases (ICD-9).

Results

During the 12-month study period, the total number of patients attending the Dermatology and Venereology Outpatient Clinic at the hospital was 5260. Of this number, 910 (17.3%) were new patients. There were 782 adult (>12 years) patients (85.93%) and 128 children (<12 years) (13.79%). There were 418 males (45.93%) and 492 females (54.06%), with a female/male ratio of 1.2:1. Saudi nationals constituted the majority of patients at 860

(94.5%), with non-Saudis numbering only 50 (5.49%). National Guard personnel comprised 149 (16.36%), their families 367 (40.33%), and non-National Guard patients were 394 (43.29%).

A total of 928 new diagnoses were seen during the study period. These were classified into nine categories according to the frequency of presentation. Table 1 shows the main disease groups, of which eczema/dermatitis topped the list (18.64%), followed by acne (9.48%), viral infections (9.26%), bacterial infections (7.65%), pigmentary disorders (6.46%), fungal infections (6.35%), papulosquamous diseases (4.84%), and urticaria (2.37%). Miscellaneous skin conditions were diagnosed in the remaining 328 patients (34.9%), and disorders of hair and pruritus were the most common.

Discussion

The current study is the first to describe the patterns of skin diseases in the Western region of the Kingdom of Saudi Arabia. The King Khalid Hospital is a referral center for primary health clinics in Jeddah, Makkah and Taif. Although this study was limited to our hospital, we believe that the results represent a rough estimate of the prevalence of skin diseases in the Western region, and that the distribution of dermatoses according to age and sex reflect the true prevalence (as both the referral and the eligibility systems of the hospital apply no specific restrictions).

The results of the present study were compared with similar published studies in Saudi Arabia and other

TABLE 1. Common skin diseases in Western Region, Saudi Arabia, July 1997-June 1998.

Diagnostic category (ICD-9)	Number of cases (%)
Dermatitis/eczema	173 (18.64)
Acne	88 (9.48)
Viral infection	86 (9.26)
Bacterial infection	71 (7.65)
Pigmentary disorders	60 (6.46)
Fungal infection	59 (6.35)
Papulosquamous diseases	45 (4.84)
Urticaria	22 (2.37)
Other	324 (34.91)

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TABLE 2. Comparison of incidence (%) of some common dermatoses in different regions of Saudi Arabia.

Dermatoses	Abha (South)	Al Jouf (North)	Jeddah (West)
Dermatitis/eczema	25.68	34.14	18.64
Acne	5.45	9.57	9.48
Superficial mycoses	6.15	7.81	6.35
Bacterial infections	13.19	10.87	7.65
Vitiligo	3.03	3.35	3.12
Viral warts	2.49	2.85	6.78
Psoriasis	2.10	5.33	3.01
Lichen planus	1.32	1.21	0.64

TABLE 3. Comparison of incidence (%) of some common dermatoses in different countries.

Dermatoses	Canada	Kenya	India	U.A.E.	Saudi Arabia
Dermatitis/eczema	39.2	28.1	15-20	20.98	18.64
Pyoderma	5.7	6.4	30-40	2.55	7.65
Acne	7.3	3.9	3.5	9.07	9.48
Superficial mycoses	4.3	9.5	15-20	8.50	6.35
Psoriasis	4.7	3.2	0.5-1.5	4.49	3.01
Vitiligo	NR	2.9	4	3.18	3.12
Viral warts	6.8	2	2	5.47	6.78
Lichen planus	NR	1.6	0.5-1.5	0.95	0.64

countries. Table 2 shows a comparison of the incidence of some common dermatoses in different regions of Saudi Arabia, namely Asir¹ and Al-Jouf.² In the present study, we found that the incidence of eczema, bacterial infections and lichen planus in the Western region was lower than that of the other two regions, but the incidence of viral warts was higher. The incidence of superficial mycoses and vitiligo was comparable in all regions. In the acne group, our results were similar to those from Al Jouf, but the incidence was lower in Asir. As regards psoriasis, the prevalence in our study was higher than that of Asir but lower than that of Al Jouf.

Four countries were chosen with which to compare the results of the present study (Table 3). These countries are Canada (Vancouver),³ Kenya,⁴ India (Calcutta),⁵ and

United Arab Emirates (Abu Dhabi).⁶ In Jeddah, Abu Dhabi, and Calcutta, dermatitis/eczema constituted roughly 20% of all skin diseases seen. A higher percentage was reported from Kenya and Vancouver. The cases of pyoderma accounted for 5%-7% of the total number in our study, similar to that reported from Kenya and Vancouver, but the incidence was lower in Abu Dhabi (2.55%) and higher in India (30-40%). Cases of acne constituted 7%-10% in Jeddah, Abu Dhabi, and Vancouver, and 3.5%-4% in Kenya and Calcutta.

Vitiligo and lichen planus constituted 3%-4% and 0.5-1.5%, respectively, in all countries. Superficial mycoses were seen in 6.4% of cases in the present study. Similar findings were noted in Kenya and Abu Dhabi, but was lower at 4.3% in Vancouver, and higher at 15%-20% in Calcutta. Psoriasis occurred in similar frequency in Jeddah, Abu Dhabi, Kenya and Vancouver, but was lower in Calcutta. Similarly, the prevalence of viral warts was comparable in Jeddah, Abu Dhabi, and Vancouver, but was found to be lower in Kenya and Calcutta.

In conclusion, our results showed no major differences in the prevalence of skin diseases in the published reports from different regions in Saudi Arabia and the Gulf region. The finding of a high incidence of eczema in Vancouver was attributed to industrialization, and the high incidence of pyoderma and superficial mycoses in Calcutta was thought to be due to overpopulation.

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