

## PATTERN OF SKIN DISEASES IN AL-JOUF REGION

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The incidence of skin diseases differs widely in various geographical locations, presumably influenced by racial and environmental factors. There are only a few published reports on the pattern of skin diseases in general<sup>1</sup> and on specific diseases;<sup>2</sup> otherwise, the literature is scanty in Saudi Arabia. With this in view, an attempt was made to describe the pattern of skin diseases seen in the dermatology unit of the Security Forces Clinic, Al Jouf, in the northern part of Saudi Arabia, during a 12-month period from March 1995 to February 1996.

### Material and Methods

All new patients seen in the dermatology unit of Security Forces Clinic, Al Jouf, during a 12-month period, formed the basis of the present study. Security Forces Clinic caters to all the security forces' personnel and their families, who are mainly Saudis except for a few other nationalities whose numbers were negligible and therefore not included in the study. Diagnoses were made by a specialist, based mainly on clinical findings and results of skin biopsies, when necessary.

The diseases were classified into 10 different groups, according to the frequency of their presentation, and data from other parts of the world and Saudi Arabia were compared. An attempt was made to classify the common skin diseases in accordance with the International Classification of Diseases (ICD).

### Results

The distribution of different skin diseases is shown in order of their frequencies in 10 different groups in Table 1. A total of 2381 dermatoses were diagnosed in 2360 new patients during the 12-month study period. There were 1435 adults (>13 years) and 925 children (13 years and below). The male-to-female ratio was 1.3:1.

Out of all the diseases, eczemas (34.14%) topped the

TABLE 1. Various common skin diseases seen at Security Forces Clinic, Al Jouf (March 1995-February 1996).

Disease groups (in order of frequency)	Total no. of cases	Percentage
Eczemas	813	34.14
Pyodermas	259	10.87
Acne	228	9.57
Viral infections	197	8.27
Sup. fungal infections	186	7.81
Papulosquamous disorders (psoriasis, lichen planus and pit. rosea)	178	7.47
Urticaria	118	4.95
Pigmentary disorders	116	4.87
Alopecia and diseases of hair follicles	95	3.98
Others	201	8.44

list, followed by pyodermas (10.87%), acne (9.57%), viral infections (8.27%), superficial fungal infections (7.81%), papulosquamous disorders (7.47%), urticaria (4.95%), pigmentary disorders (4.87%) and alopecia and diseases of hair follicles (3.98%).

Table 2 shows the distribution of common skin diseases in different groups according to age, sex and frequency. Atopic eczema was the most common in the eczema group (14.27% of all skin diseases) and children accounted for the most cases (71.47%). Furuncles constituted 38.27% in pyodermas, followed by secondary bacterial infections (32.84%). Herpes simplex infection was most common (36%) among viral infections, followed by viral warts at 34.51%. No child was seen with herpes zoster. Dermatophytosis was the main cause of superficial mycoses, comprising 69.35% in that group. Psoriasis remained the most common papulosquamous disorder, accounting for 71.34% and 5.33% of all the skin diseases. Among 116 cases of pigmentary disorders, 80 cases were of vitiligo (68.96%). Cutaneous leishmaniasis was seen in only two children.

### Discussion

The Security Forces Clinic caters on an outpatient basis only to those patients and their families who work under the Ministry of Interior in Saudi Arabia. All the

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dermatological cases have to be seen by the dermatologist posted here, as patients cannot report on self-referral to any higher center without a referral letter from the clinic. Other Saudi and non-Saudi nationals are seen by another dermatologist posted in the Central Hospital in this region under the Ministry of Health. As this study was limited to the Security Forces Clinic, the results cannot claim to reflect the true prevalence of skin diseases, but certainly serves as a rough index to what could be found otherwise,

TABLE 2. Age, sex and frequency-wise distribution of some common disease groups.

Disease groups #	Childre n	Male	Female	Total no.	Percentage of cases
<b>Eczemas (ICD* 690-692)</b>					
Atopic dermatitis	243	49	48	340	14.27
Contact dermatitis	39	95	94	228	9.57
Seb. dermatitis & related	80	46	27	153	6.42
Others	29	32	31	92	3.86
<b>Pyodermas (ICD 680, 686)</b>					
<b>Primary pyodermas</b>					
Furuncles	28	59	12	99	4.16
Impetigo	26	2	–	28	1.17
Others	15	24	8	47	1.97
<b>Sec. bacterial infections</b>	46	28	11	85	3.57
<b>Viral infections (ICD 052-054, 057, 078)</b>					
Chicken pox	21	3	–	24	1.00
Herpes zoster	–	7	5	12	0.50
Herpes simplex	28	26	17	71	2.98
Warts	24	34	10	68	2.85
Others	14	8	–	22	0.92
<b>Sup. fungal infections (ICD 110-112)</b>					
Dermatophytosis	42	69	18	129	5.41
Pit. versicolor	4	13	5	22	0.92
Candidiasis	19	8	8	35	1.46
<b>Papulosquamous disorders (ICD 696, 697)</b>					
Psoriasis	27	62	38	127	5.33
Pit. rosea	10	6	6	22	0.92
Lichen planus	–	19	10	29	1.21

\*=International Classification of Diseases, 1975, categories.

TABLE 3. Comparative prevalence (%) of a few common dermatoses.

Disease groups	Vancouver <sup>4</sup>	Kenya <sup>6</sup>	Calcutta, India <sup>5</sup>	Abu Dhabi, UAE <sup>3</sup>	Asir region, Saudi Arabia <sup>1</sup>	Al Jouf, Saudi Arabia
Eczemas	39.2	28.1	15-20	20.98	25.68	34.14
Pyodermas	5.7	6.4	30-40	2.55	3.19	10.87
Acne	7.3	3.9	3.5	9.07	5.45	9.57
Sup. mycoses	4.3	9.5	15-20	8.50	6.15	7.81
Psoriasis	4.7	3.2	0.5-1.5	4.49	2.10	5.33
Vitiligo	NR	2.9	4	3.18	3.03	3.35
Viral warts	6.8	2	2	5.47	2.49	2.85
Lichen planus	NR	1.6	0.5-1.5	0.95	1.32	1.21

NR=not recorded.

owing to the huge attendance of patients. The results of the present study were compared with four other countries,<sup>3-6</sup> including the neighboring state of Abu Dhabi, UAE<sup>3</sup> and findings from the Asir region in Saudi Arabia<sup>1</sup> in Table 3.

Patients with eczema constituted the most cases (34.14%), as was found in other reports, especially from Vancouver.<sup>4</sup> Pyodermas accounted for 10.87% of all the dermatoses, which is strikingly higher than in the Asir region<sup>1</sup> (3.19%), and other countries except Calcutta, India<sup>5</sup> (30% to 40%). Secondary bacterial infections, mainly complicating preexisting lesions, accounted for 32.84% of all pyodermas. This reflects the poor personal hygiene among patients from remote villages and the desert.

Cases of acne made up 9.57% of all skin diseases in this study, as was found in Abu Dhabi<sup>3</sup> (9.07%), but this number was higher than that of the Asir region<sup>1</sup> (5.45%), Kenya<sup>6</sup> (3.9%) and Calcutta<sup>5</sup> (3.5%). This could be because of a higher consciousness of self image among the youths in those countries and the easy availability of free medical services, as well as perhaps racial influence.

Superficial mycoses constituted 7.81% of all dermatoses, compared to a high of 15% to 20% of Calcutta, India<sup>5</sup> and a low of 4.3% in Vancouver.<sup>4</sup> There appears to be a higher prevalence of psoriasis, at 5.33%, in Al-Jouf than in the Asir region<sup>1</sup> (2.10%) and Calcutta<sup>5</sup> (0.5% to 1.5%), but similar prevalence was found in Abu Dhabi<sup>3</sup> and Vancouver.<sup>4</sup> Vitiligo, lichen planus and viral warts occur in similar frequencies, except for a higher prevalence of viral warts in Abu Dhabi<sup>3</sup> and Vancouver.<sup>4</sup>

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