

Pattern of skin diseases in a hospital in Southwestern Saudi Arabia

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ABSTRACT

Objectives: To ascertain the type of skin diseases in Najran General Hospital as a rough pattern of skin diseases in Najran region and to compare this with other similar regional studies in the Kingdom of Saudi Arabia (KSA).

Methods: A retrospective 12 months study of the common skin dermatoses, which were recorded in Najran General Hospital, Najran, KSA, within the period December 2000 to December 2001.

Results: We recorded 1192 new patients within the study period, 37% had one of the dermatitis or eczema group of diseases, 12.75% had acne, 7% had vitiligo, 5.9% had viral infections 5.6% had superficial mycoses, 5% had bacterial infections, 1.51% had psoriasis and only 1.1% had lichen planus. By comparison, the incidence of

dermatitis or eczema, acne and vitiligo was slightly higher in Najran compared to other regions such as Asir, Hail, Al-Jouf and Jeddah, KSA owing, probably, to the genetic predilection of Najran community to these disorders. Najran was lower than others in psoriasis and in lichen planus, but in minimal deviations. However, Najran was comparable to others in infective diseases including viral warts, superficial mycoses and bacterial infections.

Conclusion: This comparison indicates that there were no large differences between Najran and other compared regions of KSA and this region is present in the heart of health development.

Saudi Med J 2004; Vol. 25 (4): 507-510

The prevalence of skin diseases in a community depends mainly on the racial or genetic constitution of the population. However, the social, hygienic and nutritional factors all interfere as well.¹ Najran, the major city of Najran region, Kingdom of Saudi Arabia (KSA) with a population of approximately 260,000 is located in an agricultural valley in the distal south of KSA, on the border of Yemen. Most of the population (80%) are local citizens who tackle mainly on agricultural, business works and trading and with approximately 20% expatriates involve in diverse jobs. The area has a subtropical semi dry seasonal climate of 17.7 latitude, with a daily temperature ranging from 10-42°C around the year.

Methods. This is a retrospective study of new patients who were referred to skin Outpatient Department of Najran General Hospital, Najran, KSA from the related primary health care centers, emergency room or other consulting departments within the period of study. The recurrent visits of patients were not included in this study. Najran General Hospital provides secondary health services in Najran region. There are 2 skin specialists who offer medical care for skin patients in the hospital. The diagnoses were set up mainly on clinical grounds and less frequently, on laboratory investigations or histopathological examination. The patients were classified into 7 groups according to the ninth revision of the international classification

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Received 17th July 2003. Accepted for publication in final form 9th December 2003.

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of diseases (ICD-9). The dermatitis/ eczema group includes atopic dermatitis, contact dermatitis, seborrheic dermatitis, photodermatitis and others. The pigmentary group includes vitiligo, melasma and others. The hair disorders group had alopecia areata, hair thinning and others. The fungal group included superficial mycoses, tinea versicolor and candidiasis. The viral group included warts, herpes zoster, herpes simplex, molluscum contagiosum and others. The bacterial infections included primary and secondary pyoderms. The papulosquamous group included mainly psoriasis vulgaris and lichen planus. As cutaneous leishmaniasis (CL) is not endemic in this area where this hospital exists, the study was completed by the CL census from the central records. A comparison of these dermatoses with other similar regional studies from Hail, Jeddah, Al Jouf, and Asir, KSA was performed. The study period in all these reports was one-year, except for Hail which was 2 years.

Results. Four thousand one hundred thirty-two patients attended skin Outpatient Department within the period of study. Out of these, the total number of new patients relevant to these groups of diseases was 1192 (compared with 2360 in Al-Jouf, 910 in Jeddah and 1649 patients in Hail). Out of these, there were 1003 (84.1%) Saudis and 189 (15.9%) non-Saudis (ratio: 1:5.9). Males were 562 (47.1%) and 630 (52.9%) were females (ratio: 1:1.1). Wherein, 302 (25.3%) were children and 890 (74.7%) were adults (ratio: 1:2.9). Thus, the majority of our patients were Saudis, among whom adults formed 3 quarters with almost equal gender distribution. **Table 1** shows the distribution of 1192 patients on the different 9 categories in a descending order. It shows that dermatitis/ eczema diseases were the most prevalent amongst the patients with 441 (37%). These were followed by the acne group which recorded 152 (12.75%), the pigmentary group: 129 patients (10.8%), the viral group: 109 patients (9.1%), each of the hair disorders and papula-squamous diseases involved 80 patients (6.7%), urticaria patients were 75 (6.3%) and lastly came the bacterial infection group with 59 patients (4.9%). Besides these, there were 19 cases of CL in the whole Najran region, with male to female ratio 16:3, Saudi to non-Saudi 15:4, and child to adult 8:11.

Discussion. This is the first study that elaborates the pattern of skin diseases in Najran region of KSA. It gives, along with the similar study available from Asir,² an informative view on the pattern of skin diseases in the whole southern region. We think that our study represents, to a reasonable extent, the distribution of the surveyed diseases according to age and gender in Najran

region wherein, no restrictions are generally applied in front of patient's medication. We think that general hospitals, which are fully open in front of patients flow, are good media for statistical studies like this. Some of the studies performed in other regions reflect poorly the true prevalence of the diseases as they were carried out either in the security forces clinics, which caters for particular staff/ families, or in the National Guard Hospital, which caters particularly for military personnel/ families as well. In spite of this drawback, their studies were considered as a rough estimate on the prevalent skin diseases in their regions. However, our study does not reflect the actual distribution of diseases according to nationality; as expatriates who work in private sector seek their medical aid from private centers according to rules. The same is true for venereal diseases. These were only occasionally encountered in our study as they leak secretly to private medical centers also, thinking probably they are more confidential than ours. Cutaneous leishmaniasis recorded few non residential cases only, as this hospital is catering for one half of Najran which is leishmania free, contrary to the desert part of Najran. Nevertheless, for a comprehensive view, a CL statistics is documented here from the regional register within the year of study. We compared our results with the few available studies of skin diseases in the other regions of KSA which appeared in local medical literature (**Figure 1 and Table 2**) namely: Asir² (mid-south), Al-Jouf³ (far north), Hail⁴ (mid-north) and Jeddah⁵ (west). Thus, all the geographic regions, except the central and the eastern, are represented here. Most of the regional studies in the KSA mixed between national and international literature while holding comparisons, we preferred to separate between them. We think it is better to compare a region with a region, but not with another country like Kenya. This is what we did here in our study. The comparison showed that Najran topped slightly the other regions in dermatitis/eczema with 37% of the total patients, compared with 34% in Al-Jouf). The prevalence of dermatitis/ eczema here is due to the high incidence of atopic diseases in a closed community like Najran (**Table 3**). The atopic dermatitis involved the largest number within the dermatitis group; 221 (half of the dermatitis group). However, dermatitis/eczema scored the highest prevalence in all the other Saudi regions as well. This may be partially interpreted by the recent industrialization trend, which invaded the whole of the KSA and acted as an external allergic factor, and may also be related to the high incidence of atopy in other region as well as ours (atopic dermatitis ratio was 51% of the dermatitis group in Hail region and 50.1% in Najran). Najran topped slightly the other Saudi regions in acne; scoring 12.75%

Table 1 - Common skin diseases in Najran general Hospital (December 2000 - December 2001) distributed according to nationality, age and gender.

Disease groups	Saudi	Non Saudi	Male	Female	Child	Adult	Total n (%)
Dermatitis	357	84	212	229	141	300	441 (37)
Acne	135	17	50	102	3	149	152 (12.75)
Pigmentary disorders	121	8	51	78	29	100	129 (10.8)
Viral infection	89	20	60	49	38	71	109 (9.1)
Papulo-squamous diseases	71	9	45	35	18	62	80 (6.7)
Alopecias	73	7	26	54	16	64	80 (6.7)
Urticaria	58	17	44	31	16	59	75 (6.3)
Superficial mycosis	52	15	39	28	22	45	67 (5.6)
Pyodermas	47	12	35	24	19	40	59 (5)
Total	1003	189	562	630	302	890	1192 (100)

Table 2 - A national comparison of some common skin diseases among 5 different regions in the Kingdom of Saudi Arabia.

Dermatoses	Hail %	Asir %	Al Jouf %	Jeddah %	Najran %
Dermatitis	16.3	25.7	34.1	18.6	37
Acne	12.4	5.4	9.6	9.5	12.75
Superficial mycoses	6.2	6.1	7.8	6.3	5.6
Bacterial infection	2.8	13.2	10.9	7.7	5
Vitiligo	3.9	3	3.4	3.1	7
Viral warts	8.4	2.5	2.9	6.8	6
Psoriasis	3.6	2.1	5.3	3	1.5
Lichen planus	1.1	1.3	1.2	0.6	1.1

Table 3 - The etiological classification of the dermatitis group in Najran General Hospital.

Etiological classification	Saudi	Non-Saudi	Male	Female	Child	Adult	Total n (%)
Atopic dermatitis	190	31	108	113	104	117	221 (50.1)
Contact dermatitis	56	22	41	37	11	67	78 (17.7)
Seborrheic dermatitis	61	10	34	37	9	62	71 (16.1)
Photo dermatitis	44	21	26	39	13	52	65 (14.7)
Others	6	0	3	3	4	2	6 (1.4)
Total	357	84	212	229	141	300	441 (100)

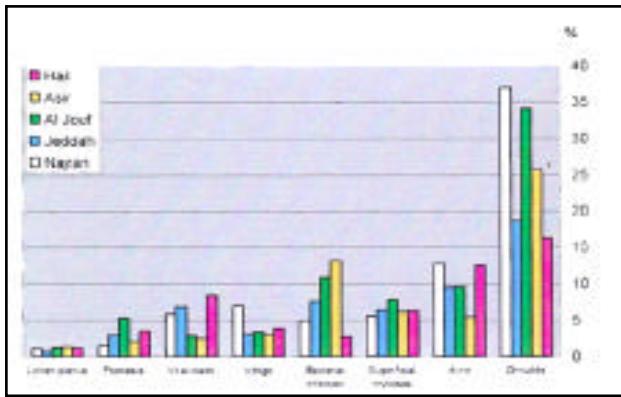


Figure 1 - Regional comparison in different diseases.

(corresponding to 12.4% in Hail region), but Najran markedly surmounted in vitiligo (7%), (the other regions were around 3-4%). This may again be attributed to the familial predisposition resulting from the closed marriages. However, Najran was, fortunately, at the tale of the caravan in psoriasis (1.5%), lichen planus (1.1%) and pyoderma (4.9%). The low pyoderma record in Najran reflects adequate hygienic and nutritional conditions in the community. Viral warts came in the middle of the spectrum in the comparison (5.9%). The incidence of superficial mycoses in Najran was comparable to all other regions. (approximately 5-7%). Contrary to

the general concept on the southern region, deep mycosis is very seldom in Najran, it recorded nil in the period of study. This comparison indicates that Najran, though so far in geography, is present in the heart of health development, equally with other regions of the KSA .

Acknowledgment. We would like to express our gratitude to Mr. Al-Bara H. Shelleh and Mr. Mohannad H. Shelleh for their help in computer works and to Ms. Ammini T. G. for her valuable help in statistics.

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