

Pattern of Skin Diseases in Qatar A Pilot Study

HASSAN ALI AL-ABDULLA, MD, M.M. SELIM, MD,
ADEL MOHAMED KAMAL, MD, AND KHALID MANSOUR, MBBCh
DOHA, QATAR

From: Department of Dermatology, Hamad Medical Corporation, Doha, Qatar

SUMMARY

The number of outpatients seen in the various medical and surgical disciplines at Hamad Medical Corporation (HMC) including skin patients in the past three years (1990-1992) were obtained and the percentage of dermatology outpatients was 10.5%. Case files of all patients seen at the dermatology department in the first four months of 1993 were reviewed. Diagnosed skin diseases were classified into 15 main groups that were further sub-classified into specific diseases.

This study covered 6930 dermatology outpatient files. The results of the survey revealed that the commonest problems were in the following order of frequency: warts 9.9%, acne 8.3%, contact dermatitis 7%, atopic dermatitis 6.9%, pityriasis versicolor 6.8%, seborrhoeic dermatitis 4.7%, telogen effluvium 4.4%, urticarias and insect bites 4.1%, alopecia areata 3.2%, chronic eczemas 2.9%, scabies 2.9%, pyodermas 2.6%, psoriasis, and vitiligo 1.9%.

Introduction

The information about skin diseases incidence in Qatar is lacking. The skin department in Hamad Medical Corporation (HMC) is the only referral dermatology center in Qatar. Hence a study of patients coming to

this Hospital would provide information on the pattern of skin diseases incidence in Qatar. Accordingly, a retrospective pilot study of patient case files of skin outpatients who visited HMC between January-April 1993 was carried out in order to determine the preliminary spectrum of skin diseases in Qatar.

Material and Methods

Case files of all patients seen at HMC in the first 4 months of 1993 were reviewed. The data collected included age, sex, nationality and the first diagnoses made in the first visit. Dermatologic diagnoses were classified into fifteen groups which were further subclassified into specific diseases. The results obtained were recorded and tabulated.

The number of outpatients seen in the various medical or surgical disciplines coming to HMC including skin patients in the past 3 years (1990-1992) was obtained and the percentage of skin outpatients calculated.

Results

The total number of patients who visited HMC averaged 792559 per year during the three years 1990-1992. The dermatology patient represented 10.5% of the total number of patients seen (Table 1).

The survey covered 6953 of skin outpatient

Table 1. Total outpatients number in HMC during three years.

Year	Outpatients number in HMC	Skin Patients
1990	736824	84520
1991	76006	85796
1992	8880847	79751
Average	792559	83355

Table 2. Total Number Surveyed According to Sex and Nationality.

Nationality	M	F	M&F	Total % to Group Total
Qatari	1290	1431	2721	39.2
Other Arabs	1025	873	1898	27.2
Non Arabs	1503	831	2334	33.6
Total	3817	3136	6953	100

M: Male = 55% F: Female = 45%

Table 3. The Incidence of the Main Disease Groups.

Diseases Group	Qatari		O. Arabs		N. Arabs		Total M&F	%to Group Total
	M	F	M	F	M	F		
Infections	367	320	404	223	585	250	2159	31.0
Eczema Dermatitis	405	365	221	177	331	214	1713	24.64
Diseases of scalp and Pilosebaceous follicle	185	372	154	234	187	127	1267	18.2
Pigmentary disorders	185	372	155	71	94	59	410	5.8
Papulosquamous	53	39	41	37	89	44	303	4.4
Skin hypertrophies	63	48	41	18	58	28	256	3.7
Urticarias	57	59	38	42	53	33	282	4.1
Dry skin	29	30	13	10	17	12	111	1.6
Skin Tumours	20	13	11	10	23	15	92	1.34
Nevi	10	23	8	8	12	20	81	1.2
Drug eruptions	25	12	14	6	17	5	79	1.14
Erythemas	4	15	4	9	6	5	43	0.62
Genodermatoses	9	3	3	2	9	1	27	0.4
Connective tissue disorders	1	3	1	5	2	2	14	0.2
Miscellaneous	18	34	17	11	20	16	116	1.70
Total	1290	1431	1025	873	1503	831	6953	100

O. Arabs: Other Arabs N. Arabs: Non Arabs

Table 4. Incidence of the Main Disease Groups Among Qatari Patients.

Diseases Groups	Qatari		Total	Percentage of total of Qatari Patients
	M	F		
Infections	367	320	687	25.2
Eczema Dermatitis	405	365	770	28.3
Diseases of hair and Pilosebaceous follicles	183	372	555	20.8
Pigmentary disorders	46	85	131	4.8
Papulosquamous	53	39	92	3.4
Skin hypertrophies	63	48	111	4.1
Urticarias	57	59	116	4.3
Dry skin	29	30	59	2.2
Skin Tumours	20	13	33	1.2
Nevi	10	23	33	1.2
Drug eruptions	25	12	37	1.4
Erythemas	4	15	19	0.7
Genodermatoses	9	3	12	0.4
Connective tissue disorders	1	3	4	0.1
Miscellaneous	18	34	52	1.9
Total	1290	1431	2721	100

Table 5. Viral infections group.

Disease	Qatari		O. Arabs		N. Arabs		Total	%to Group Total	%toGrand Total
	M	F	M	F	M	F			
Warts Molluscum	145	105	143	86	148	60	687	74.4	9.9
Contagiosum Herpes	19	16	11	10	9	10	75	8.1	1.1
Zoster Herpes	8	13	19	10	48	9	107	11.6	1.51
Simplex	5	3	6	3	2	6	25	2.7	0.37
Herpes Progen	6	1	-	-	5	-	12	1.3	0.17
Varicella	5	2	-	-	7	2	18	1.9	0.26
Total	188	140	179	111	219	87	924	100	13.3

case files seen in the first four months of 1993 of which 55% were males and 45% females (Table 2). The various diseases seen were classified under 15 major groups (Tables 3,4).

Specific infections (namely bacterial, viral, mycotic and parasitic) had the highest score (31%) as shown in Tables 5,6,7 and 8.

The eczema dermatitis group was next in frequency 24.64% (Tables 9,10). Disease of

scalp, hairs and pilosebaceous follicles represented 18.2% (Table 11). The rest of the 15 groups and their subgroups are listed and tabulated according to their decreasing frequency in the following order: pigmentary disorders (Table 12); papulosquamous eruptions (Table 13); urticarias (Table 14); skin hypertrophies (Table 15); skin tumours (Table 16); Nevi (Table 17); the erythemas (Table 18);

Table 6. Fungal infection group.

Infection	Qatar		O. Arabs		N. Arabs		Group Total	%to Group Total	%to Grand Total
	M	F	M	F	M	F			
Tinea capitis	25	16	9	7	9	6	72	9.1	1.04
Pityriasis Versicolor	37	45	89	25	198	76	470	59.3	6.76
Crural	10	4	19	9	17	5	64	8.1	0.92
Corporis	16	17	6	5	8	8	60	7.6	0.86
Nail	1	5	2	7	2	7	24	3.0	0.35
Toe Webs	5	2	16	3	16	1	43	5.4	0.62
Chronic Paronychia	1	11	4	8	9	6	39	4.9	0.59
Finger Webs	-	1	1	3	-	-	5	0.6	
Palms Mucous	-	-	-	1	-	1	2	0.3	
Membrane of mouth	-	2	-	-	-	-	2	0.3	0.29
Balanitis	7	-	1	-	2	-	10	1.3	
Tinea barbae	-	-	-	1	-	1			
Total	102	103	147	68	262	110	792	100	11.4

O. Arabs: Other Arabs **N. Arabs:** Non Arabs

and genodermatoses (Table 19). Other rarities are grouped in Table 20 under miscellaneous classification.

Discussion

The results tabulated revealed basic information out of which numerous statistical figures could be calculated especially those relating diseases to age, sex and nationality. Moreover percentages of diseases could be compared with similar work from other countries. We chose to compare our figures with those published from United Arab Emirates (UAE)¹ (to represent Gulf states); United Kingdom,² Singapore³ (representing South East Asia); Peru,⁴ and Jamaica⁵ (exemplifying developing countries). The comparison is shown in Table 21.

In this table one can observe similarities, and differences in the groups of diseases listed in relation to these countries. We note that in Qatar, the malignant tumours recorded were one Qatari with squamous cell carcinoma of the skin, one case of Kaposi sarcoma in a Qatari renal transplant recipient, one case of basal cell

carcinoma (BCC) in a non Qatar Arab, and seven cases of BCC in non Arabs. This shows how rare is skin cancer in Arabs. This shows how rare is skin cancer in Arabs despite the sunny environment that may precipitate such diseases. This may be due to the type of skin prevailing and the type of protection effected by the national Arab dress. Certain groups of parasitic infection were commonly reported and accounted for 55.64% of the cases seen in this series.

The comparison shows also that some diseases such as skin tuberculosis, pemphigus, pemphigoid, Behcets', and in-borne errors of metabolism are rarely encountered.

Comparison of relative percentages of fungus infections as reported in Qatar (Table 6), UAE¹ and Saudi Arabia⁶ is shown in Table 22. In the latter table, three of the Gulf Cooperation countries share a high percentage of PVC among the group of fungal infections. This may be due to similar geographic and environmental conditions. The figure also reflects the effect of adequate free health services which encourages the population to

seek medical advice whenever needed.

The present work is only a step that will be followed by a more comprehensive work to get more information about the whole spectrum of skin diseases in Qatar. Special attention may be given to the commonest problems revealed by this survey and represented by the top 14 diseases.

Conclusion:

The range of diseases that affect the skin

varies from very simple conditions as chapped skin up to the potentially fatal diseases as pemphigus, scalded skin syndrome, melanoma and lymphoreticular disease.

The pattern of skin disease differs from one locality to the other due to many factors and variables. The inquiry about the incidence of various skin diseases in a given locality is a traditional question that is always expected to be answered. The present survey is a trial to answer such a question in Qatar.

Table 7. Parasitic infection group.

Disease	Qatar		O. Arabs		N. Arabs		Group Total	%to Group Total	%to Grand Total
	M	F	M	F	M	F			
Scabies	21	34	33	28	51	32	199	88.0	2.9
Pediculosis	-	9	-	2	1	4	16	7.0	0.2
Cutaneous Leishmaniasis	2	1	1	3	4	-	11	5.0	0.1
Total	2	44	34	33	56	36	226	100.0	3.2

O. Arabs: Other Arabs N. Arabs: Non Arabs

Table 8. Bacterial infection group.

Disease	Qatar		O. Arabs		N. Arabs		Group Total	%to Group Total	%to Grand Total
	M	F	M	F	M	F			
Pyodermas	33	34	37	21	42	15	182	83.9	2.6
Erythrasma	-	-	4	-	-	1	5	2.3	0.07
Leprosy	-	-	1	-	1	-	2	0.92	0.03
Tuberculosis	-	-	-	-	2	-	2	0.92	0.03
Urethritis	33	44	2	-	1	-	22	10.1	0.31
Syphilis	-	-	-	-	-	1	1	0.46	0.02
Chancroid	1	-	-	-	2	-	3	1.4	0.04
Total	53	34	44	21	48	17	217	100.0	3.1

O. Arabs: Other Arabs N. Arabs: Non Arabs
Sexually transmitted disease = 0.37%.

Table 9. Eczema dermatitis group.

Diagnosis	Total Number	%to Group Total	%to Grand Total
Atopic Dermatitis	479	28.0	6.90
Contact Dermatitis	487	28.4	7.00
Seborrhoeic Dermatitis	329	19.2	4.73
Eczemas	202	11.8	2.91
Pityriasis	73	4.3	1.04
Intertrigo	50	2.9	0.70
Photodermatitis	46	2.7	0.66
Napkin Dermatitis	28	1.6	0.40
Expholiative Dermatitis	12	0.7	0.20
Perioral Dermatitis	7	0.4	0.10
Total	1713	100	24.64

Table 10. Eczema dermatitis group according to sex and nationality.

Disease	Qatari		O. Arabs		N. Arabs		Group Total	%to Group Total	%toGrand Total
	M	F	M	F	M	F			
Contact Dermatitis	77	86	65	36	138	85	487	28.4	7.0
Atopic Dermatitis	154	139	47	51	51	37	479	28	6.9
Seborrhoeic Dermatitis	80	65	42	45	65	32	329	19.2	4.7
Eczemas	28	29	29	27	37	52	202	11.8	2.9
Others	66	46	38	18	40	8	216	12.6	3.14
Total	405	365	221	177	331	214	1713	100	24.64

Table 11. Disease of scalp, hair and pilosebaceous follicle.

Disease	Qatari		O. Arabs		N. Arabs		Group Total	%to Group Total
	M	F	M	F	M	F		
Acne	83	184	50	113	81	69	580	8.4
Rosacea Alopecia	-	-	1	3	1	-	5	
Areata	46	28	45	22	59	22	222	3.2
Pityriasis Capitis	10	17	19	5	8	10	69	1.0
Cicatricial Alopecia	-	1	-	1	2	-	4	0.05
Androgenic Alopecia	15	-	12	1	5	1	34	0.5
Diffuse Hair loss	27	121	23	82	31	24	308	4.4
Hirsutism	-	29	-	7	-	1	37	0.53
Pseudosycosis	2	2	4	-	-	-	8	0.12
Total	183	382	154	234	187	127	1267	18.2

O. Arabs: Other Arabs N. Arabs: Non Arabs

Table 12. Pigmentary Disorders

Disease	Qatari		O. Arabs		N. Arabs		Group Total	%to Group Total
	M	F	M	F	M	F		
Vitiligo	25	25	18	12	37	16	133	1.9
Melasma	8	36	13	24	23	18	122	1.7
Post Inflammatory Hyper-pigmentation	6	12	14	21	18	14	85	1.2
macular Amyloidosis	-	2	-	3	-	-	5	1.0
Berloque	-	-	2	-	-	-	2	
Tattoo	-	-	3	-	-	1	4	
Freckles	-	5	1	6	1	4	17	
Post Inflammatory Hypo-pigmentation	7	5	4	5	15	6	42	
Total	46	85	55	71	94	59	410	5.8%

Vitiligo among Qatari patients = 1.8%

Table 13. Papulosquamous eruptions

Disease	Qatari		O. Arabs		N. Arabs		Percentage Total	%to Group Total
	M	F	M	F	M	F		
Psoriasis Pityriasis	31	23	22	18	54	19	167	2.4
Rosea Lichen	15	13	12	15	20	16	91	1.3
Planus Lichen	3	2	6	2	14	8	35	0.5
Nitidus	1	-	1	-	-	-	2	
Parapsoriasis	1	-	1	-	-	-	2	0.2
PRP	-	-	-	1	-	-	1	
Lichen striatus	2	1	1	1	5			
Total	53	39	41	37	89	44	303	4.4

Psoriasis among Qatari patients = 2%

Table 14. Urticarias group.

Disease	Total Number	Percentage to Group Total
Chronic urticaria	85	1.2
Acute urticaria	59	0.8
Papular urticaria	111	1.70
Cholinergic urticaria	15	0.22
Physical urticaria	6	0.1
Dermographism	4	0.05
Urticaria pigmentosa	2	0.03
Total	282	4.1

Table 15. Skin Hypertrophies group.

Disease	Total	Percentage to Group Total
Skin tags	108	1.55
Plantar hyperkeratosis	40	0.6
Callosity	33	0.47
Keloid		
Seborrhoeic Keratosis	20	0.3
Dermatitis Papulosa nigra	17	0.24
Acanthosis Nigricans	14	0.2
Corns	12	0.17
Acrokeratosis Verruciformis	10	0.14
Total	2	0.03
	256	3.7

Table 16. Skin tumor group.

Disease	Qatari		O. Arabs		N. Arabs		Percentage Total	%to Group Total
	M	F	M	F	M	F		
Cysts	5	6	6	4	10	5	36	0.52
Basal Cell carcinoma	-	-	-	1	3	4	8	0.12
Squamous cell Carcinoma	1 above 51 old	-	-	-	-	-	1	0.01
Leiomyoma	-	-	1	-	-	-	1	0.01
Kaposi	1	-	-	-	-	-	1	0.01
Tumors of sweat glands	2	2	-	1	1	1	7	0.1
Hair follicle tumor	2	-	-	1		1	4	0.05
Glomus tumor	1	-	-	-	-	-	1	0.01
Pyogenic Granuloma	5	-	2	2	4	3	16	0.23
Lipoma	3	2	-	-	4	1	10	0.14
Roma	1	2	2	1	1	0	7	0.1
Total	21	12	11	10	23	15	92	1.31

Table 17. Nevi group.

Nevus	Total
Pigmented moles	53
Becker's nevus of Otta	1
Hypopigmented Anemicus	6
Epidermal verrucous	1
Sebaceous	11
Vascular	2
Total	6
	81

Table 18. The erythemas group.

Diagnosis	Qatari		Other Arabs		Non Arabs		Total
	M	F	M	F	M	F	
Erythema Multiforme	4	13	4	7	5	5	38
Erythema Nodosum	-	2	-	-	-	-	2
Erythema annular	-	-	-	1	-	-	1
Erythroderma	-	-	-	1	-	-	1
Erythema Dyschromicum	-	-	-	-	-	1	1
Perestans	-	-	-	-	-	1	1
Total	4	15	4	9	6	5	43

Table 19. The genodermatoses group.

Diagnosis	Qatari		Other Arabs		Non Arabs		Total
	M	F	M	F	M	F	
Icthyosis	6	-	1	-	8	-	15
Epidermolysis Bullosa	-	-	1	-	-	-	1
Palmoplantar	2	1	-	-	-	-	3
Keratoderma	-	3	1	2	1	1	8
Total	8	4	3	2	9	1	27

Table 20. The Miscellaneous Group

Diagnosis	Qatari		Other Arabs		Non Arabs		Total
	M	F	M	F	M	F	
Pemphigus					1		1
Pemphigoid of Pregnancy				1			1
Prurigo of Pregnancy		4		4		2	10
Dermatitis Herptiformis						1	1
Granuloma annular	3						3
Necrobiosis lipoidica	1	1					2
Xanthoma		2	1		1	3	7
Juvenile Xanthogranuloma	1			1			2
Dermatitis Artefacta			1				1
Post Inflammatory Desquamation				1			1
Purpura	1	2	2	1	1		7
Pigmented purpuric eruption					1		1
Prurigo nodularis Generalized	1						1
Pruritus	6	8	1	1	5	2	23
Panniculitis						1	1
Angular Stomatitis					1	1	1
Aphthous stomatitis		2			1	1	4
Behcet's	-	-	-	-		1	1
Milia	3	8	-	1	-	2	14
Miliaria	3	4	2	2	4	1	16
Hyperhidrosis	3	1	8	-	4	2	18
Total	18	34	17	11	20	16	116

Table 21. Percentages of diseases compared with similar work from other countries.

Disease Groups	Qatar	UAE	U.K.	Singapore	Peru	Rural Jamaica
Eczema	24.64		17	38.8	27.3	7.1
Dermatitis		8				
Acne	8.3	9.07	5.2	10.9	20.7	13
Superficial Fungus Infections including P.V.C.	11.4	8.5	2.4	5.4	4.2	11.8
Viral Infectious	13.3	7.39	17.4	9.4	11.4	2.3
Pigmentary Disorders	5.8	5.41	-	9.1	14.5	-
Psoriasis	2.4	4.49	5.6	3.3	0.8	0.35
Lichen Planus	0.5	0.95	0.9	-	-	-
Pityriasis Rosea	1.3	0.75	-	-	-	0.25
Alopecia Areata	3.2	2.26	1.5	2.4	-	-
Pyodermas and Bacterial infections	2.6	2.55	1.1	2.9	2.1	10.7
STD	0.37	2.86	-	-	-	-
Papular Urticaria and insect bites	4.1	-	2.3	7	-	0.35
Scabies	2.9	-	0.9	0.1	1.9	30.5
Malignant tumours	0.1	-	4.2	-	-	-
Malignant Melanoma	Nil	-	0.2	-	-	-

Table 22. Comparison of fungus infection percentages in Qatar, UAE and Saudi Arabia.

Disease	Qatar	UAE	Saudi Arabia
PVC	59.3%	43.96%	30.9%
Tinea Capitis	9.1%	4.39%	15.3%
T. corporis	7.6%	4.39%	10.7%
T. cruris	8.2%	10.37%	8.7%
Onychomycosis and paronychia	7.9%	-	16.8%
T. Pedes and Manum	6.3%	12.09%	13.2%
Candidiasis	1.6%	18.83%	4.3%
Others	-	1.71%	0.16%
Total	100	100	100.06

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Correspondence:

Dr. Hassan Ali Al-Abdulla
Chairman
Department of Dermatology
Hamad Medical Corporation
Doha, Qatar
