

Pattern of dermatological disorders in Al-Adan Hospital: Southern region of Kuwait

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ABSTRACT

Objective: To quantify outpatient consultations workload in Southern region of Kuwait. To study the pattern of diseases most commonly encountered in our department.

Materials and Methods: During the year 2011, all outpatient dermatological consultations in the southern region of Kuwait were recorded with diagnosis & detailed demographic data.

Results: The most common disorders seen in dermatology outpatient clinics is eczema/dermatitis (23.7%), followed by warts (15.6%), followed by acne (14.5%). There was now significant seasonal variation seen with any of the studied dermatology diseases. Female consultations (56.6%) were more than male consultations 43.2%. Most of the patients were new 62.2% compared to old follow up patients 37.5%.

Conclusion: This study showed that the most frequent cause of dermatology consultations is eczema / dermatitis, followed by verrucae & acne. There was no significant correlation between seasons and diseases.

INTRODUCTION

Kuwait is one of the developing countries with a fast growing population. It hosts a wide variety of immigrant nationalities who over count original Kuwaitis. Most of them are in the middle age working group.

As the population increased, the load on outpatient clinics in our department increased. This put us in a situation where we need to evaluate our system. In addition, the changing population and concomitant increase in all types of skin diseases, as well as the introduction of a variety of new systemic therapies requiring regular specialist monitoring, have had major effects on the dermatology outpatient workload. In order to make effective plans for provision of dermatology services, an accurate picture is needed of the rate and type of referrals to secondary care and the work these generate as well as how much the demand from the primary

care is influenced by the education of nondermatologists.¹

Department of Dermatology in Al-Adan Hospital is covering the southern region of Kuwait, which includes both Mubarak Al-Kabeer & Al-Ahmedi Continents. A total of 1,304,638 are living in this region. The Department is divided into three branches, Al-Qurain center, Al-Adan hospital center, & Al-Fahaheel center. A total of 16 outpatients clinics are distributed on the three centers.

Our aim was to record all dermatology outpatient visits collecting demographical data & diagnoses for each consultation. Processing such data can help assessing our performance and planning future needs & demands of the department.

MATERIALS & METHODS

The study period was one year, started on the first of January 2011, and ended on 31st of December

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2011. Each of the 16 clinics was giving a data collecting sheet to be filled daily for every patient seen. The sheet contains the patient's age, sex, nationality, whether he is new or old patient, and his provisional diagnosis. The data was then collected on weekly basis. SPSS 12.0 package software was used in statistical analysis. Values obtained in the study were presented as mean \pm SD. Chi-square test was used in the comparisons between groups.

RESULTS

A total of 56,792 patients were seen during the one-year study period. 42,970 (75.7%) of them were Kuwaiti patients, and 13,824 (24.3%) were non-Kuwaiti.

As seen in Fig. 1, the most common age group seen in the clinics are between 21-30 years old (23.5%), followed by patients between 11-20 years old (21.1%), then the age group between 0-10 (17.6%). The majority of our patients were females (56.6%). Most of the consultations were for newly presenting patients 35422 (62.2%), com-

pared to old follow up patients 21370 (37.5%).

Patients diagnosed with eczema/dermatitis were found to be the 1st most commonly seen consultations in our outpatient clinics (23.7%). Patients complaining of wart infections composed the second most common consultations (8854 patients (15.6%)), followed by acne (8250 (14.5%)). Other diagnoses were as follows: Atopic dermatitis (6468 (11.4%)), contact dermatitis (3550 (6.3%)), psoriasis (3410 (6%)), hair fall (2798 (4.9%)), fungal infections (2318 (4.1%)), other types of dermatitis (2000 (3.5%)), alopecia areata (1420 (2.5%)), cosmetic consultations (1226 (2.2%)) Table 2.

The relation between the diagnosis and the age & sex of the patient was clear in some diseases but insignificant in others. For example, most of the patients with wart infections are mainly between the age 11-20 years old (25.9%) distributed

Table 1 Skin diseases

Skin Disease	Number (n = 56,792)	Percent (%)
1. Dermatitis (Total)	13,466	23.7 %
Atopic dermatitis	6,468	11.4 %
Allergic contact dermatitis	3,550	6.2 %
Seborrheic dermatitis	1,414	2.5 %
Exfoliative dermatitis	34	0.1 %
Other dermatitis	2000	3.5 %
2. Warts (verrucae)	8,854	15.6 %
3. Acne	8,250	14.5 %
4. Hair disorders	4,218	7.4 %
Hair fall	2,798	4.9 %
Alopecia areata	1,420	2.5 %
5. Psoriasis	3,410	6 %
6. Fungal Infections	2318	4.1 %
7. Cosmetic Consultations	1226	2.2 %
8. Pruritus - xerosis	1,082	1.9 %
9. Vitiligo	1,082	1.9 %
10. Urticaria & Angioedema	1,020	1.8 %
11. Folliculitis	872	1.5 %
12. Herpes Infections	712	1.3 %
13. Skin Tags	652	1.1 %
14. Nail Disorders	606	1.1 %
15. Other Papulosquamous diseases	558	1 %

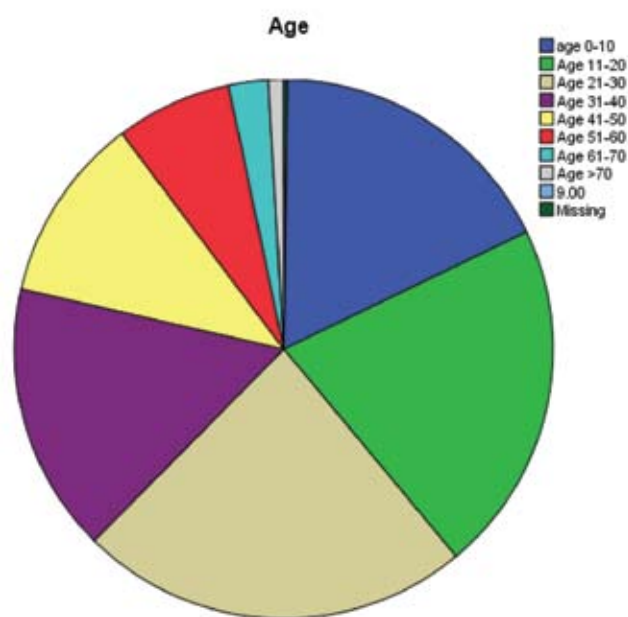


Fig. 1 Patients Age.

equally between males & females. While atopic dermatitis patients were mostly between age 0-10 years (64.2%), males equals females. Half of acne patients (51.9%) were between 11-20 years old; most of them were females (75.4%).

DISCUSSION

Many epidemiological studies around the world claimed that female patients predominate at dermatology clinics.²⁻³ This was also the case in our study. We believe this may be attributed to greater sensitivity of females regarding health related issues. Moreover, females are more conscious about their body image than males.

The major bulk of our patients (78.5%) are under the age of 40 years, and the major disease burden was eczema/dermatitis (23.7%), followed by warts (15.6%), followed by acne (14.5%), then psoriasis (6%) Table 2. The prevalence of various skin diseases varies according to geographical area and usually related to many factors including race, environment and socioeconomic factors of populations.⁴

As our study, eczema/dermatitis is the most prevalent skin disease reported in developed countries, whereas skin infections are predominant in developing countries.⁴ This may be attributed to the presence of high number of allergens in industrialized areas. This is also the case in Kuwait, as most of the population in our area are either working directly or in associated industries related to oil exploration.

In contrast to our study, seasonal variation in certain skin disorders is a well known phenomenon that has been observed.⁵⁻⁷ Lack of seasonal variation of diseases could be the result of indoor lifestyle in Kuwait most of the year. Also, most of the population travels abroad in summer months due to very high temperatures, and the people staying in Kuwait in summer usually take care very well from direct or indirect exposure to sun, as most activities are in indoor, air-conditioned places.

There is little literature about the incidence and distribution of dermatology diseases in Kuwait. One extensive study on this topic in children was done by Nanda et al.⁸ In this study, 10,000 Arabic children with dermatological problems were evaluated prospectively, 162 dermatoses were defined. The most common disease observed was Atopic dermatitis (31.1%), which was followed by verrucae (13.1%), alopecia areata (6%), pityriasis alba (5.25%), psoriasis (4%), and diaper dermatitis (4%). This is comparable to our results as dermatitis was the most common disease and warts (verrucae) came second. The little differences can be attributable to the study population, as it was mainly children in Nanda's study, while we studied all age groups. Other factor that may have affected the differences in the results could be the region of the referrals. We studied mainly the Southern region of Kuwait, while they were concentrating on the central region & the capital. In conclusion, eczema / dermatitis, wart, acne, and psoriasis ranked as top four skin disorders seen in

Table 2 Most common diseases vs age

Disease	Total	0-10 yr	11-20 yr	21-30 yr	31-40 yr
Eczema / Dermatitis	12,018 (23.7%)	4508	1988	1762	1390
Wart	8854 (15.6%)	1928	2300	1864	1324
Acne	8250 (14.5%)	922	4200	3230	562
Psoriasis	3410 (6%)	164	316	688	856

Table 3 Prevalence of viral warts adjusted by gender

Type	Males	(%)	Females	(%)	Total	(%)
Common warts	2175	24.57 %	1518	17.14 %	3693	41.71 %
Plantar warts	1683	19.01 %	1934	21.84 %	3617	40.85 %
Plane warts	536	6.06 %	464	5.24 %	1000	11.30 %
Anogenital wart	226	2.55 %	318	3.59 %	544	6.14 %

outpatient dermatology clinics in Southern region in Kuwait. All primary health care providers and general practitioners should be able to diagnose and manage these common skin disorders, as all cases seen at dermatology clinic must be seen firstly by primary health care clinics. We recommend that training programs for these most common skin disorders must be held to primary health care units. This will result in a decrease referral to dermatology clinics and reflex to the cost paid by either individual persons as well as the state.

Finally, this study gives a fair picture of conditions causing main burden on dermatology department in Al-Adan hospital, however, we recommend a large scale population based epidemiological study to estimate the true pattern of prevalent skin disorders in Kuwait.

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