SPECTRUM OF SKIN DISORDERS PRESENTING TO KING ABDUL AZIZ HOSPITAL DURING HAJJ SEASON-2000

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Background: The pilgrimage (Hajj) to the holy mosque in the city of Makkah takes place once every year and during this huge gathering skin diseases are quite common due to hot weather and over crowding. The aim of this study was to collect and report data regarding different dermatological problems occurring during the holy month of Zil-hajj. **Methods:** Data regarding skin diseases was collected from pilgrims which were examined and diagnosed clinically at the Department of Dermatology King Abdul Aziz Hospital, during the month of Zil-Hajja of the year 2000. These patients were referred from various primary health centers, medical hajj missions of various countries and Children and Maternity hospital in Makkah. **Results:** During the month of Zil- hajja of the year 2000, 1510 cases were seen, of these 1143 were males and 367 were females. The criteria for diagnosis for most of the cases were mainly clinical. The highest number of patients was in the age group of 20-50 years. Eczemas of different types were the most common skin disease observed in these pilgrims, intertrigo was the next most common presenting condition this was followed by fungal and bacterial infections. **Conclusion:** A high frequency of skin diseases such as eczemas, intertrigo, pyoderma and fungal infections was found among the pilgrims. More detailed studies regarding skin conditions during this season would enable us to have better understanding of skin problems there management and prevention in full.

Key Words: Overcrowding, Skin disorders, Eczemas, Intertrigo, Hajj.

INTRODUCTION

The Hajj is one of the five pillars of the Islamic belief and is obligatory once in their lifetime to all Muslims who can afford it. This pilgrimage to the holy mosque and other sites in the city of Makkah takes place once every year, the rites of the pilgrimage are based on those performed by the prophet Muhammad (peace be upon him) during his last visit to Makkah. About 02-03 million Muslims from through out the kingdom and all the five continents of the world gather in Makkah to achieve what is considered the spiritual high point of their lives. During this huge gathering in Makkah, which is one of the hottest places in the world with temperature ranging between 37^0C-45^0C, along with over crowding, there is an increased frequency of infectious diseases and some skin conditions. Prevalence of skin diseases varies according to month of the year in which the pilgrimage is taking place. An early diagnosis and identification of these conditions that are mostly curable by treatment is important, as this not only helps in treating the patients but also helps preventing the spread of communicable diseases. The information data regarding the variety of skin diseases is very scanty hence it was suggested that a study regarding generally prevalent skin problems during hajj would be helpful for the management of such conditions in future.

Material and Methods

King Abdul Aziz Hospital is one of the main specialized centers of dermatology run by the ministry of health in the holy city of Makkah. All the cases in the out patient clinic as well as indoor consultations from various departments are seen by qualified dermatologists. A study was conducted on all the new cases, which were seen at the dermatology department in our hospital during the month of Zil-Hajja in the Year-2000. The duration of this study was 01- month. This study included local Saudi nationals as well as hajjis from different parts of the world who reported directly to us or were referred by the various primary health centers of Makkah region or from medical missions of various countries, which were operating during the hajj season in different parts of the city. It also

included indoor admitted cases in the surgical and medical units as well. The cases were seen first by residents who recorded all the details such as age, sex, nationality, and took detailed history of their illness from the patients, who were then referred to a consultant dermatologist where they were examined and diagnosed clinically. A few cases required Laboratory investigations such as fungal and bacterial cultures and 4mm punch biopsies for histological examination to confirm the clinical diagnosis. The results regarding the diseases, age, races are shown in the Table 1, 2, 3 and 4.

RESULTS

The total number of new patients examined in outpatients for dermatologic problems was 1510, which represented about 5.5 % of the total number of patients who attended the hospital during the year 2000 Hajj season. The different skin diseases diagnosed are shown in Table-1. The males and females represented 75.69% and 24.30% respectively. The age group distribution according to sex is summarized in Table-2. The major group of pilgrims in this study included pilgrims from all the five continents, Saudi nationals and expatriates coming from different parts of Kingdom for hajj.

The diagnosis for most of the cases was mainly on clinical basis. The diseases diagnosed in this group were in the following percentage in a descending order. Different types of eczemas (24.8%), intertrigo (11.9%) pyoderma (8.9%) urticaria (4.9%) P.versicolor was (4.72%) (Table-1) and T.cruris (3.9%). 75% of the total patients seen were male and female pilgrims as shown in (Table-2) and all belonged to the age group 25-50. The number of male patients was higher as the male population is more in number compared to females coming to hajj each year and a very few children accompanying their families.

Pilgrims of age group 60 and above were also few in number and most of them come from South East Asia. Fatani et al reported similar results regarding different age groups in their study.[11]

The highest number of pilgrims who came for skin problems were from Indian, Far East and Iran in a descending order. Pilgrims who reported to dermatology from Africa included North Africa, Arab countries and those from Europe were mostly of Asian origin. There were two patients from Australia one of Pakistani and the other of Somali descent. The details regarding different races of the pilgrims who reported to the skin clinic is shown in Table-3.

DISCUSSION

This study was conducted during pilgrimage from 1st to 30th Zil hajja. Factors such as hot, humid climate was responsible for quite a few dermatological conditions observed in this study. Similar precipitating factors have been reported before.[1-5]

One of the most common skin diseases observed in pilgrims was different type of eczemas as shown in table-4; these results are similar to those reported in other studies.[6-9] The highest number of cases belonged to the undetermined category, and this could be partially due to lack of communication because language barrier of non-Arabic speaking nationalities.

Table-1: Number of cases and % of the main diseases.

Skin Diseases	Total	Male	Female	%
Eczemas.	375	268	107	24.8
Pyoderma	135	102	33	8.9
Erysipelas	11	09	02	0.72
Folliculitis	25	20	05	1.65
Cellulitis	10	06	04	0.66
Impetigo	60	45	15	3.9

Ecthyma	10	10	0	0.66
Abscess	10	9	01	0.66
Tinea.Corporis.	20	16	04	1.32
Tinea Cruris	60	45	15	3.9
Tinea Pedis	40	30	10	2.64
Tinea Capitis	05	05	0	0.33
Tinea Ungium	10	08	02	0.66
Tinea Versicolor	72	60	12	4.72
Viral Rash	55	35	20	3.6
Herpes Zoster	14	11	03	0.92
Herpes Simplex.	12	06	06	0.79
Chicken Pox	04	04	0	0.26
Warts (Verrucae)	30	25	05	1.98
Intertrigo	180	162	18	11.9
Pruritis	62	45	17	4.1
Scabies	08	08	01	0.52
Drug Reaction	28	14	14	1.85
Urtricaria	75	54	21	4.90
Bullous Dermatosis	04	03	01	0.26
Miliara	55	39	16	3.6
Photo-Dermatosis.	60	54	06	3.9
Psoriasis.	20	17	03	1.32
Insect Bite	15	12	03	0.99
Acne.	04	01	03	0.26
Hair-Fall	04	0	04	0.26
Alopecia-Aerata.	04	04	0	0.26
Vitiligo.	05	04	01	0.33
Melasma.	05.	0	05	0.33
Other Diseaseas.	23	13	10	1.52
Total	**1510**	**1143**	**367**	**99.9**

Table-2: Age group distribution according to sex

Age	Male	Female	Total	%
0-9	51	13	64	4.20
10-19	142	38	180	11.90
20-29	290	102	392	25.90
30-39	382	136	518	34.30
40-49	145	48	193	12.7
50-59	66	20	86	5.69
60-69	49	08	57	3.70
70-79	14	02	16	1.05
80-89	03	0	03	0.19
90-100	01	0	01	0.06
Total	**1143**	**367**	**1510**	**99.90**

Table-3: Distribution of patients according to race.

Race	Male	Female	Total	%
Asians	592	180	772	51.12
Arabs	391	127	518	34.30
Africans	148	59	207	13.70
Europeans	09	01	10	0.66
Australians	03	0	03	0.19
Total:	**1143**	**367**	**1510**	**99.9**

Pompholyx was more common among the pilgrims coming from Africa, mostly involving the soles, with associated fungal infections. Atopic eczema was seen in children in their teens, their condition had worsened after arrival in the kingdom. Most of the cases of xerotic eczema were elderly Indian males. The xerotic eczema was generally marked more on the lower limbs. Pilgrims with contact eczemas gave history of using washing powders and Dettol.

Table-4: Different varieties of eczema seen during Hajj.

Type	Male	Female	Total	%
Contact Eczema	20	10	30	8.00
Atopic Eczema.	13	04	17	4.50
Dyshidrotic Eczema. (Pompholyx).	39	19	58	15.49
Xerotic Eczema.	40	13	53	14.13
Nummular Eczema. (Neuro Dermatitis)	09	05	14	3.73
Keratolysis Exfoliativa.	11	01	12	3.20
Seborrheic Eczema.	12	06	18	4.80
Undetermined	124	49	173	46.13
Total.	**268**	**107**	**375**	**99.98**

Intertrigo is very common in hot and humid climate[4, 10], this fact is reflected very clearly from the results of this study. Intertrigo occurs as a result of increased friction between the thighs in groin region where the skin is wet due to sweating, since pilgrimage require walking around the Qaaba which is in the center of the mosque seven times that is frequently repeated plus walking between Al- safa and Al- marwa also seven turns in a very crowded environment. Most cases were associated with super added fungal infections, such as tinea cruris of groin & axilla. Fungal infections are common in hot humid overcrowded environment.[4,5,10] Candidiasis of intertrigious area is common.[4,11]

Bacterial infections such as folliculitis, furunculosis, erysipelas, cellulitis, abscesses were observed in this study, a finding that is similar to those observed in different studies previously.[6-9,12]

Patients with pruritis accounted for (4.1%) being almost the same as seen in previous study.[10] Although pilgrimage is a huge gathering but still patients with scabies were very few representing 0.52% of the group seen and was mostly seen in Indians and Egyptians. Scabies tends to be more common in colder climates and overcrowded environment.[1-3,13]

Patients with miliara accounted (3.6%) of the total number of patients seen, which is high as compared to other studies[8, 12,] this may be due to the excessive sweating due to the hot and humid climate during the Hajj season. Photo-dermatitis was mostly seen in Arab pilgrims coming from countries like Syria and other Mediterranean countries because of their light skin type, similar results have been reported previously.[10] Another group of patients observed were those suffering from drug related allergies. The most common ones being due to penicillin G or synthetic penicillin, Amoxicillin, and Sulpha group of medicines. Allergies due to a variety of other reasons such as food allergies from fish, seafood, cheese, meat & dairy products and solar heat[6-8,10] were also observed.

Generalized urtricaria, angio-edema, and bullous disorders such as pemphigus & pemphigoid are acute in nature and need hospital admission for treatment and management. Very few cases of non-acute conditions such

as acne, melasma, hair fall, mostly women were observed in this study. The number of patients with psoriasis was very few a result similar to a study done previously in Makkah.[10] Many psoriatic patients become worse due to physical and mental stress, resulting in erythroderma, which necessitated hospitalization.

CONCLUSION

The results of this study suggest that hot weather and overcrowding play an important role for the presence of different skin conditions. High number of patients with different types of eczemas, fungal and bacterial infections and intertrigo were observed which is understandable due to such a large congregation.

RECOMMENDATIONS

A coordinated study by a group of dermatologists belonging to different hospitals of Makkah with a proper protocol would give us a better view regarding the pattern of different dermatological conditions prevalent during the hajj season which would enable us in drawing a proper plan for the better management and control of these conditions during hajj season.

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