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Why Dermatology Patients Are Hospitalized? A Study from Pakistan

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SUMMARY In most countries, there are no specified protocols or guidelines for admitting dermatology patients and admission criteria depend on assessment and sometimes the whim of the dermatologist. Although the severity and extent of the disease are the commonest reasons for hospitalizing dermatology patients, sometimes other factors also operate to provide comfort to the patient. This study was carried out to determine the reasons for hospitalizing patients on dermatology beds in secondary care hospitals of Pakistan. A questionnaire comprising patients' demographic data, diagnosis, specific reasons for hospitalization and length of hospital stay was sent to dermatologists of 10 secondary care hospitals in the country. The data received in response were processed and analyzed using the SPSS-10 computer program. A total of 310 patients were included in the study. Patient age ranged from 1 to 87, mean 28.87±12.32 years. The severity and extent of the disease (n=122; 39.3%), outpatient treatment failure (n=57; 18.4%) and need for further observation and/or investigations (n=51; 16.5%) were the most common reasons for hospitalizing these patients. Hospital stay of the patients ranged from 2 to 30, mean 9.82±6.43 days. Scabies (n=56; 18.1%), chickenpox (n=52; 16.8%) and eczema (n=41; 13.2%) were the most common diagnoses.

KEY WORDS: dermatology, hospitalization, indoor treatment, reasons, hospital stay

INTRODUCTION

With advances in dermatology, an increasing number of patients are being treated at outpatient departments; however, inpatient treatment remains an important and sometimes essential therapeutic option for some patients with dermatologic problems. Disease severity is the most common reason for hospitalization of dermatology patients and inpatient therapy has been observed to be an effective mode of treatment in improving patients' quality of life (1,2). However, concomitant disabilities, social factors, or other reasons may also occasionally necessitate hospitalization (3,4). Presently, in many parts of the world there are no specified protocols, procedures or guidelines for

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admitting dermatology patients and admission criteria depend on the assessment and sometimes the whim of the dermatologist. Whereas providing comfort to the ailing patient is the primary responsibility of any physician, it ought to be judicial in that there is no laxity in easy drainage of hospital resources.

To the best of our knowledge, there are no published data from South Asia regarding the reasons for which dermatology patients are hospitalized. We studied admission practices of qualified dermatologists of ten secondary care hospitals from all four provinces of Pakistan.

The objective of this study was to determine the reasons for hospitalization of dermatology patients at secondary care hospitals in Pakistan.

PATIENTS AND METHODS

This multicenter prospective study was carried out from April 1 to June 30, 2008, based at PAF Hospital Faisal, Karachi. A questionnaire was designed in consultation with all the authors and sent to dermatologists of 10 secondary care hospitals, located in all four provinces of the country. Each of these hospitals has vast catchment areas. These hospitals have at least one full time qualified dermatologist with 10-20 dedicated beds available for the care of indoor dermatology cases. Dermatologists were asked to record data in the same questionnaire at the time of admission and again at the time of discharge for all patients hospitalized and discharged from the hospital during this period. The questionnaire included patients' demographic data, diagnosis, and duration of hospital stay. The questions addressing specific reasons of hospitalization referred to the nature and severity of disease, social and academic factors. The responses were collected and data pooled together and fed into the computer. The data were processed and analyzed using the SPSS-10 computer program. Descriptive statistics like frequency, percentage and mean with standard deviation were calculated. The study was approved by the scientific and ethics committee of the hospital.

RESULTS

All the ten dermatologists responded and sent back completely filled-out questionnaires. A total of 310 patients were hospitalized and discharged by these dermatologists during the study period. There were 291 (93.9%) male and 19 (06.1%) female patients, age range 1-87 (mean 28.87±12.32) years. The severity and extent of disease (n=122; 39.3%), outdoor treatment failure (n=57; 18.4%) and need for further observation and/or investigations (n=51; 16.5%) were the most common reasons for hospitalization (Table 1).

Table 1. Reasons for hospitalization of dermatology patients

S/No.	Reason for hospitalization	Number	Percentage
1	Severity of illness	122	39.3%
2	Outpatient treatment failure	57	18.4%
3	For observation and/or investigations	51	16.5%
4	Patient came from a far off area	42	13.5%
5	Patient's request	18	05.8%
6	Concurrent medical problems	12	03.9%
7	Poor social support	05	01.6%
8	Academic reasons	03	01.0%

Hospital stay of the patients ranged from 2 to 30 days (mean 9.82±6.43). The majority of patients (n=171; 55.1%) were hospitalized for 7 days or less, 72 (23.2%) patients for 8-14 days, 56 (18.0%) for 15-21 days, and 12 (03.8%) for 22-30 days. The last group of twelve patients had cutaneous leishmaniasis, systemic lupus erythematosus, pemphigus vulgaris, psoriasis and borderline tuberculoid leprosy. Scabies (n=56; 18.1%), chickenpox (n=52; 16.8%) and eczema (n=41; 13.2%) were the most frequent diagnoses (Table 2).

Table 2. Pattern of dermatology admissions in secondary care hospitals of Pakistan (N=310)

S/No.	Diagnosis	Number	Percentage
1	Scabies	56	18.1%
2	Chickenpox	52	16.8%
3	Eczema	41	3.2%
4	Cutaneous leishmaniasis	32	10.3%
5	Herpes zoster	26	08.4%
6	Skin and soft tissue infections	22	07.0%
7	Urticaria	17	05.5%
8	Psoriasis	13	04.2%
9	Venereal diseases	11	03.5%
10	Dermatophytoses	09	02.9%
11	Pemphigus vulgaris	05	01.6%
12	Chilblains	04	01.3%
13	Miscellaneous*	22	07.2%

*Fixed drug eruption, photodermatitis, erythema multiforme, epidermolysis bullosa, plantar warts, systemic lupus erythematosus, borderline tuberculoid leprosy, scleroderma.

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DISCUSSION

Dermatology is a progressive specialty with an ever increasing number of patients. With advances in dermatology, an increasing number of patients are being treated at outpatient department; however, inpatient treatment remains an important and sometimes essential therapeutic option for a selected group of dermatologic patients.

As the nature of dermatologic problems varies from region to region, so are the requirements for hospitalization of dermatology patients. About three fourths of the patients in this study had infections or infestations with scabies, chickenpox and cutaneous leishmaniasis on top of the list. Although cutaneous infections continue to represent a large proportion of inpatient dermatology (5), such a large proportion of infections requiring hospitalization on dermatology beds is alarming. Under such a situation, dermatologists need to put in a lot to educate people in disease control. Different studies carried out in Europe (6-8), America (1,4) and South Africa (9) have revealed that the majority of dermatology admissions were for eczema, psoriasis, leg ulcers, skin cancers, other highly specialized dermatoses and infections. In all these studies, although infections were among the common dermatoses necessitating hospitalization, their proportion was much lesser as compared to our study. However, a study from Spain has revealed more infections and a lower number of patients hospitalized for psoriasis and dermatitis (10). Unfortunately, we were unable to find a study discussing inpatient dermatology in Asian countries for comparison. However, there is high prevalence of infections and infestations in developing countries throughout the world as it is evident from dermatology outpatient studies carried out in Pakistan (11-13), as well as other parts of the world (14-17).

The most common reason for patient hospitalization in this study was the severity and extent of disease. These patients included those suffering from eczema, herpes zoster, varicella, skin and soft tissue infections, pemphigus vulgaris, psoriasis, chilblains and urticaria, in decreasing order of frequency. Outpatient treatment failure was the second most common reason for hospitalization. The majority of patients admitted for this reason were those suffering from scabies (83.3%), followed by cutaneous leishmaniasis and psoriasis. Although the reasons of failure in outdoor treatment were not assessed objectively, these could be improper communication between the physician and patient, improper use of treatment, failure to convince other family members to undergo treatment in case of scabies, and desire to stay at the hospital for a few days. A comparative study carried out simultaneously in the UK and the USA (1) has revealed that the extent and severity of disease and treatment failure in outdoors were the most common reasons for hospitalization. Another study from Scotland and Northern England (2) showed the disease severity, concomitant medical problems and social factors to be the most common reasons for hospitalization. The severity of disease (90%), inability to cope (40%), the need for further investigation or observation (33%), coexisting medical factors (17%), poor social support, transport and psychological factors were the reasons for hospitalization of dermatology patients recorded in a study from the UK (3). Hospitalization for observation or investigations to establish the diagnosis or to assess the progress and extent of disease was the third most common reason in this study. These patients were suffering from urticaria, chickenpox, venereal diseases, cutaneous leishmaniasis, systemic lupus erythematosus, fixed drug eruption and photodermatitis in decreasing order of frequency.

Other than the above mentioned medical reasons (84.8%), certain psycho-socio-economic reasons also contributed to patient hospitalization. Pakistan is a multi-cultural country having geographically diverse regions ranging from lush as well as rugged mountainous areas through fertile plains and scorching deserts to a sizable coastal belt. Rural areas and congested urban areas have multiple socioeconomic problems like poverty, overcrowding, unemployment, inadequate water supply and difficult means or terrain for traveling. The most common of these reasons was coming from a far off area with difficulties like inability to go back on the same day or inability to come back for follow up. Another interesting reason was patient's request for hospitalization even when the disease was neither severe nor extensive. The reasons for such requests included anxiety about the illness, to rest in a peaceful environment for full recovery, patient's desire to remain under constant medical supervision, and another family member being admitted to some other department of the same hospital. Probably economic reasons also contributed to such requests.

Academic interest of dermatologists was the third category of reasons for hospitalization of patients; these patients had systemic lupus erythematosus, epidermolysis bullosa and erythema multiforme.

The mean length of hospital stay in study patients was approximately 10 days, which is not markedly different from other studies. Cutaneous leishmaniasis (mean 21.4±2.50 days), pemphigus vulgaris (mean 23.20±4.44), systemic lupus erythematosus (mean 21.0±1.41), syphilis (mean 12.71±3.90) and psoriasis (mean 12.0±5.32) were among diseases with longer hospital stay in this study.

Although dermatologists are qualified to assess the hospitalization needs of patients, inappropriate admissions are done everywhere throughout the world in every specialty (18-20). Whereas hospitalization of patients having communicable diseases is an effort to limit the spread of these diseases, we need to launch aggressive public hygiene training programs all over to combat this situation. At the same time, hospitals need to implement appropriate evaluation protocol and objective criteria to minimize the overuse of hospital resources in an easy and rapid way.

CONCLUSION

The severity and extent of disease, outdoor treatment failure and need for further observation and/or investigations were the most common reasons, whereas scabies, chickenpox and eczema were the most frequent diagnoses in patients hospitalized on dermatology beds at secondary care hospitals of Pakistan.

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Kako sam se sa 60 godina riješila nabora

...I KAKO MI JE USPJELO, DA IZGLEDAM 20 GODINA MLADJA

•Došla sam i u šezdesetu godinu, dakle u doba, kad vrlo često žena više ne traži da bude privlačiva. Ali ja sam iz puke radoznalosti zaželiela, da na svom navoranom i zapuštenom licu iskušam djelovanje kreme Tokalon hrane za kožu. Zamislite moje iznenađenje, kad su mi rekli već iza *mjesec dana* uporabe: »Vi se pomladjujete!« Ohrabrena ovim primjedbama, ja sam ustrajala i u roku od *pet mjeseci* dogodilo se čudo, te sad svi, koji me vide, tvrde, da izgledam kao žena koja je najviše 40 do 45 godina. Moj je ten svjetao i dražestan, diskretno ružičast, a nabori su se gotovo posve izgubili i jedva se po koji primjećuje. To je divno! Sudeći po tome, kad bi samo sve žene htjele da se služe kremom Tokalon hranom za kožu, ne bi više uopće bilo starih baka•

How I solved problem of wrinkles in sixties, and how I manged to look 20 years younger?; year 1930. (from the collection of Mr. Zlatko Puntijar)