



Pattern and Outcome Dermatological Admission at the University of Port Harcourt Teaching Hospital Rivers State

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Introduction: Dermatology is primarily an outpatient clinical and surgical subspecialty, but a substantial number of patients need inpatient care for adequate management. In recent years, there is a rise in the number of inpatient dermatological admissions and an increase in spending. Rarely, skin diseases can be fatal.

Aims and Objectives: To analyze the disease patterns and clinical outcomes of dermatological patients admitted on the medical wards of a tertiary institution in southern Nigeria.

Materials and Methods: This study involves a retrospective analysis of the admission records of consecutive inpatients with a dermatological diagnosis admitted at the university of Port Harcourt teaching hospital from January 2014 to July 2020. The data obtained were statistically analysed with emphasis on the patient's demographic profile, clinical diagnosis, final outcome, and duration of admission.

Results: A total of 68 patients were admitted into our center during this time. Female outnumbered males with male female ratio of 1: 2.2. Infections (53 patients, 77.9%) were the most frequent

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reason for admission, followed by autoimmune disorders (5 patients, 7.4%), inflammatory causes, drug reactions and cutaneous manifestation of inter diseases had 3 patients each (4.4%). A patient was classed as idiopathic (1.5%).

Keywords: Dermatology; autoimmune disorders; *diagnosis*; pemphigus.

1. INTRODUCTION

Dermatological disorders are diverse in clinical presentation and severity. Rarely, skin diseases can be fatal such as malignant melanoma, toxic epidermal necrolysis and pemphigus, thus requiring hospital admission. Therefore, though dermatology is primarily an outpatient clinical and surgical specialty, it also plays important role in the care of in patients who are admitted to dermatology beds and other services [1,2].

Dermatological disorders have a high prevalence throughout the world and account for about 10% of the outpatient care workload of family physicians in developed countries. In developing countries, data from several studies on the overall community based prevalence of dermatological disorders indicate that they are also quite common, ranging from 20-80% and most of them resulting from infections [3,4].

In patient dermatology has not been properly described in many countries, its pattern of diseases is different in different countries. In developing countries, infectious diseases such as tuberculosis, leprosy and onchocerciasis are commonly seen in general dermatological care, whereas, in developed countries, inflammatory disorders such as eczema and acne are common [5,6].

There is rise in the number of admissions and of spending for treatment of dermatologic admission in recent years. There is also a trend away from inpatient treatment of people with non-life-threatening skin disorders so as to control rising costs of health care. Where a dermatological disorder is severe enough to warrant in patient care, inpatient admission is beneficial to these patients in several ways. These ill patients need regular clinical and laboratory monitoring, parenteral therapies, advanced nursing care and multispecialty referral for their condition which is possible in an inpatient setting. There is usually a significant improvement in measures of quality of life, depression and anxiety following admissions [7,8].

There is a paucity of data documenting the epidemiology and outcome of dermatological admissions in Nigeria. Epidemiological studies to determine the burden of skin diseases are important for proper health care planning. Study of pattern of dermatologic inpatient admissions and the outcome of care are important to help point out disorders associated with high morbidity and mortality with the view of improving treatment modalities of these conditions. It will aid in identifying areas of needed change in both state and national health policies to aid in giving appropriate care delivery and manpower development tailored to dermatological needs in this area of study. An effort to improve primary care and alleviate the burden on hospital care should be target of a health policy. It will also identify areas where there is a paucity of knowledge, thereby focusing and increasing medical students and resident's knowledge, experience in the diagnosis and management of these skin conditions in the area of study [9,10].

2. MATERIALS AND METHODS

The study was designed as a retrospective descriptive study. It involved a retrospective review of the records of consecutive in patients with a dermatological diagnosis admitted in the university of Port Harcourt teaching hospital from January 2014-July 2020. The ward records were reviewed to gather data on age, sex, diagnosis, length of stay, outcome of admission, number of dermatological admissions, associated co-morbidities, mortality of dermatological patients, total number of admission on the ward and number of death on the ward. Data was analyzed using SPSS 20.

3. RESULTS

A total of 68 patients with dermatology disorders were admitted into the internal medicine wards of the University of Port Harcourt teaching hospital (UPTH), Rivers State in southern Nigeria. Most patients were from Rivers State with a few coming from neighboring states (Bayelsa and Abia states).

3.1 Demographics

There were 47 (69.1%) females and 21 (30.9%) males, see Fig. 1, with female ratio of 1:2.2. the age range was 23-79 years with the mean age 42.06 ± 12.76 , see Table 1.

3.2 Pattern of Diseases

Every dermatological disorder diagnosed was documented and subsequently grouped under the following categories; infections, inflammatory disorders, autoimmune and immunobullous disorders, drug reactions, cutaneous manifestations of internal diseases and idiopathic.

Infections were seen in 53 patients (77.9%), autoimmune and immunobullous disorders in 5 patients (7.4%), inflammatory skin disorders were diagnosed in 3 patients (4.4%) and drug reactions, cutaneous manifestations of internal diseases were also seen in 3 patients each (4.4%). In one patient (1.5%), a diagnosis was not indicated and he has grouped as idiopathic. See Table 2.

The specific diagnosis for dermatological disorders seen were oropharyngeal candidiasis,

herpes zoster, herpes simplex virus, chicken pox, genital warts, tinea corporis, candida intertrigo, cellulitis of lower limbs, Steven-Johnson's syndrome, Karposci sarcoma, pleuritic papular eruptions, bullous pemphigoid, systemic lupus erythematosus, exfoliative dermatitis, pruritus, atopic dermatitis.

Co morbidities seen were retroviral disease (58.8%) some patients had no associated co morbidity (17.6%), diabetes mellitus (8.8%), renal impairment (2.9%), with 2.9% of patients having associated malignancy and pneumonia. The least co morbidities reported in 1.5% of patients were septicaemia, congestive cardiac failure, hypertensive and cerebrovascular disease. See Table 3.

Mortality was recorded in 13.2% (9 patients) of dermatological inpatient admissions while 86.8% (59 patients) were discharged, see Fig. 2. The causes of death in all 9 patients were due to dermatological disorders grouped as infections. Eight of the patients that died had retroviral disease as co-morbidity and 1 patient diagnosed with co-existing cerebrovascular disease. Disease associated with mortality were oro pharyngeal candidiasis, Kaposi sarcoma and candida intertrigo.

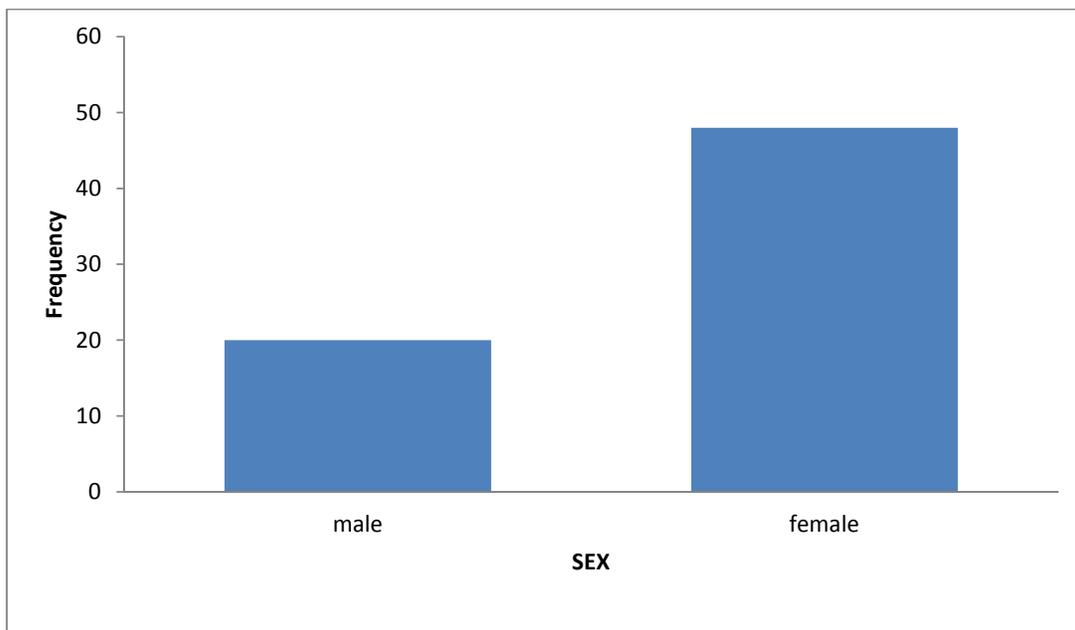


Fig. 1. Frequency of sex distribution of inpatient dermatology cases at UPTH

Table 1. Age of the study population

Variable	Minimum	Maximum	Mean	Std. Deviation
Age (years)	23	79	42.06	±12.756

Table 2. Pattern of inpatient dermatological disorder at UPTH

Variable	Frequency (n)	Prevalence (%)
Infections	53	77.9
Autoimmune and Immunobullous disorders	5	7.4
Inflammable disorders	3	4.4
Drug reactions	3	4.4
Cutaneous manifestation of internal disorders	3	4.4
Idiopathic	1	1.5
Total	68	100

Table 3. Co morbidities associated with dermatological inpatients at UPTH

Variable	Frequency (n)	Prevalence (%)
Retroviral disease	40	58.8
No co morbidity	12	17.6
Diabetes mellitus	6	8.8
Renal impairment	2	2.9
Malignancy	2	2.9
Pneumonia	1	2.9
Septicemia	1	1.5
Congestive cardiac failure	1	1.5
Hypertension	1	1.5
Malignancy	1	1.5
Total	68	100

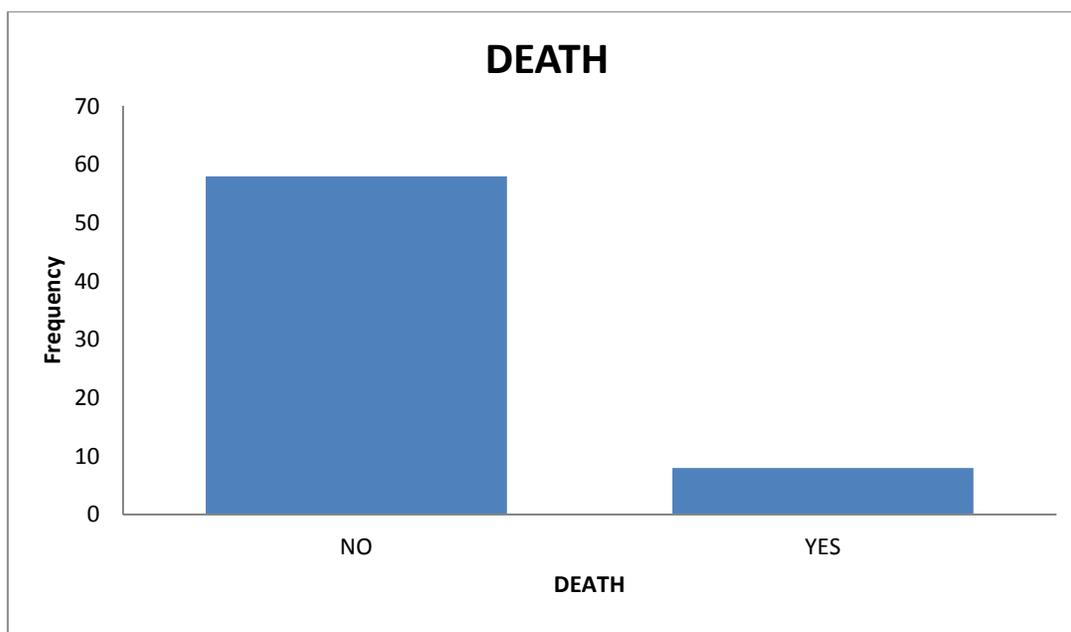


Fig. 2. Outcome of dermatologist inpatient admission at UPTH

4. DISCUSSION

Dermatologic in patients from our review of 6 year spanning January 2014 to July 2020 revealed only 68 patient with female, males accounting for 69.1% and 30.9% respectively, ages ranging 23-79years (42.06±12.76). The low count of patient in part is attributable to industrial action embarked upon by allied health workers interfering with the smooth run of patient care activity in the facility. However, dermatology basically is an outpatient care discipline in major part of its operation except in case of comorbidities like advanced stages of retroviral diseases.

There was a female predominant in our study accounting for 69.1%.

This is due to concern for cosmetic by women generally the health seeking behavior and women are found to easily evoke assistance from relatives in aiding their care when seeking health care compared to their outpatient in our environment. The finding is similar to other hospital based studies in Nigeria by Olaniyi Onayemi et al. [11].

From our review, infections dermatologic condition accounted for greater percentage of inpatient. Fungal and Viral infections were common. This is in consonance with other similar studies in Nigeria [11,12].

Mortality was recorded in 9(13.2%) patient. 8 patient were due to advanced cases of retroviral disease and a case of cerebrovascular disease. This outcome is similar to a study by Olarinde J Ogumola et al in Ekiti [12]. However, 86.8% of the inpatient were successfully discharged home for follow up at the outpatient clinic.

5. CONCLUSION

Dermatologic practice is mainly an outpatient care discipline but were needed patient are admitted for optimum care. In our study and in similar study women seek dermatologic care mostly for cosmetic reason. Infections causes of dermatologic condition still records high and mortality is mostly associated with advance stages of comorbidities like retroviral disease.

CONSENT

It's not applicable.

ETHICAL APPROVAL

It's not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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