

Assessment of Prescribing Pattern and Common Skin Diseases in Dermatology Outpatients at Tertiary Care Hospital

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ABSTRACT

Skin diseases are ailments that have an impact on the skin. This illness may result in rashes, inflammation, itching, or other changes to the skin. Patients should receive drugs that are appropriate for their clinical needs, given in doses that meet their clinical needs and for

Objective:

- To study the demographic details and prescribing pattern in dermatology patients.
- To study the most common skin disease in the dermatology outpatient department.
- To study the most common drug used in the dermatology outpatient department.

Materials and Methods:

A prospective observational study was carried out for a period of six months at the Dermatology outpatient department of Basaveshwara medical college hospital, Chitradurga.

Results:

A total of 206 patients are included. 111 were females and 95 were males. The most common skin diseases are observed in the age group of 16-26 years (41.3%). The major skin disease was Tinea 50(24.2%), Dermatitis 35(16.9%), followed by Acne vulgaris 23(11.1%). Anti-Histamine 126(45%), Anti-Fungal 85(19.6%) and Antibiotics 24(8.5%) were majorly prescribed oral drugs. Antibiotics 36(13.38%), Corticosteroid 31(11.5%), Anti Histamine 6(2.2%), and Anti-fungal 65 (24.2%) are majorly prescribed topical drugs.

Conclusion:

Skin diseases are one of the issues that have a greater effect on day-to-day life. Our study was conducted in a tertiary care hospital, where the majority of dermatological conditions, like fungal infections and eczema, which should be managed ideally in a primary health care set. Public health policies should be accomplished to manage skin disease rationally.

Keywords: Dermatology, Skin Disease, Prescription Pattern, Quality of life

I. INTRODUCTION

The skin is the largest organ and it plays vital functions as the first line of defense against radiation, harmful pollutants and microbial infections¹. The skin is directly exposed to the environment and can be affected either by altered intrinsic factors like metabolic, genetic, immunological and extrinsic factors like environmental, chemicals, infectious agents². Various skin conditions, including Psoriasis, urticarial, angioedema, atopic dermatitis, contact dermatitis and autoimmune blistering disorders are immune mediated. The measures of this illness are chronic inflammatory, proliferative with strong hereditary and environmental influences³. Primary and secondary cutaneous complaints are most common in India. The most common problems that are observed in patients are allergy and itching problems⁴. Chronic and incurable skin conditions like psoriasis and eczema are allergies to measure morbidity in the form of physical pain and the reduction in a patient's quality of life, whereas malignant conditions like malignant melanoma are linked to significant death⁵.

The lives of patients with skin conditions may be impacted in numerous ways. Due to its physical manifestations, skin diseases are a leading cause of morbidity⁶. Because of the physical symptoms, the potential to create anxiety, depression, anger and embarrassment and affected by their quality of life⁷. Dermatology patients are typically treated with a focus on their clinical signs and symptoms as well as how the condition affected them personally⁸.

The most common dermatological conditions are dermatitis, scabies, pyoderma, urticaria, fungal skin infection, acne, alopecia, while eczematous disorders like psoriasis, skin cancer and cutaneous adverse drug reactions are much less common². Antibiotics, antifungal, benzoyl peroxide, steroids, salicylic acid, antihistamine, vitamins and minerals, analgesics are the most commonly prescribed drugs.

Treatment is an important part in both curing the disease as well as preventing the spread of communicable disease⁸.

According to the WHO, drug use studies are the crucial tool for understanding that pharmaceuticals are marketed, distributed and prescribed as well as for evaluating the following effects of these elements on the medicals with the patient's socio-economic level. Drug use studies are very important for understanding drug prescribing patterns as well as for determining prescription quality for of rationality drug interactions and the financial burden of the disease to the individual⁹.

Standard indicators of QOL are wealth, employment, environment, physical and mental health, education, recreation and leisure time and social belonging¹⁰. Measuring QOL in dermatology by using some methods like dermatology quality life index [DLQI], dermatology quality of life scales [DQOLS] etc¹¹.

The definition of rational drug usage is the administration of an acceptable, effective, safe, and cost-effective medication for the proper indications, dosage and formulation, at the right interval of time. Adaptation of the essential drug concept, development of evidence based clinical guidelines, continuous training of health professionals, consumer education, can be promoted widely by the RDU¹². To is also referred as to, patient getting the lowest possible dose of their prescribed medications, according to their particular needs and low cost¹³.

II. 2.MATERIALS AND METHODS

STUDY DESIGNS:

A prospective observational study

STUDY SITE:

The study was conducted in the dermatology outpatient department of Basaveshwara medical college hospital, Chitradurga.

STUDY PERIOD:

This study was conducted over a period of six months

STUDY SUBJECTS:

This study included Dermatology department outpatients for various skin diseases. A patient who meets the following met was enrolled.

INCLUSION CRITERIA:

- Patient age 16-80 years
- Patients who are willing to sign informed consent

EXCLUSION CRITERIA:

- All inpatient and age below 15years
- Outpatients of age above 80 years
- Psychiatry patient

ETHICAL APPROVAL:

The study was approved by the institution ethical committee of Sri Jagadguru Mallikarjuna Murugharajendra College of Pharmacy, Chitradurga.

Ref No: SJMPC/626/2022-23

SOURCE OF DATA:

- Medical records of outpatients
- Patient/caretaker interview

STUDY PROCEDURE:

The study was started after obtaining the approval from the institutional ethical committee (ICE). Patients who satisfy the above study criteria were included in the study after getting the consent. A patient demographic detail, past medical history and treatment details was collected from the medical records of the outpatients and was documented in a were suitable designed data collection form.

STATISTIC METHOD:

Obtained data was analyzed using SPSS28 and the percentage and frequency were calculated.

III. RESULTS

A total of 206 prescription data were taken a prospective observational study for the duration of a 6-month period. The study was conducted to analyze the skin disease and prescription pattern. The observed patient data was categorized based on

- 3.1 Demographics includes age, gender, education, occupation, past medical history and past medical history.
- 3.2 Diagnosis
- 3.3 Treatment

3.1 DEMOGRAPHIC DETAILS

1. AGE

In the current study, 206 prescriptions were taken between 16- 26 (41.3%) years. Patients are more affected by skin disease, followed by 27-37(41%) years, 38-48years (17%) and 49-59 (7.8%). The result has been represented in figure No. 1

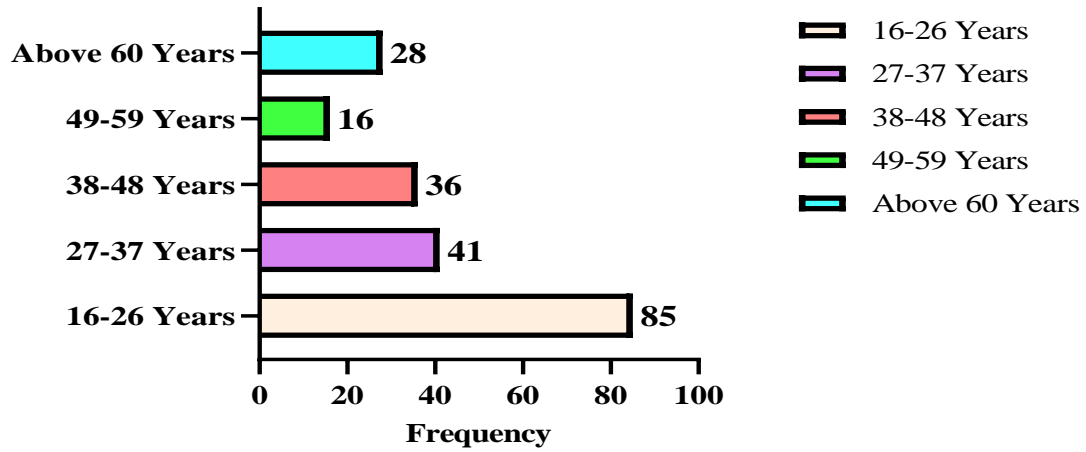
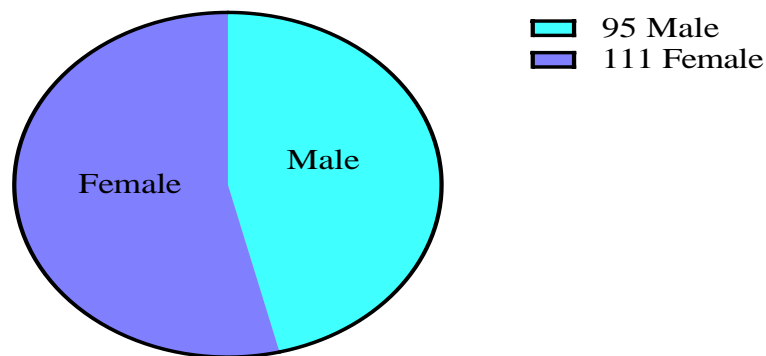


Figure No. 1 Distribution according to Age

2. GENDER

In the present study females 206 patients, 111 were female (53.9%) followed by 95 females (46.1%)

were found. The result has been represented in figure No.2



Total=206

Figure No. 2 Distribution according to Gender

3. OCCUPATION

The study population of 206 patients, in this, 105(51%) were working who followed by 101

(49%) 3-working. The result has been represented in figure No.3.

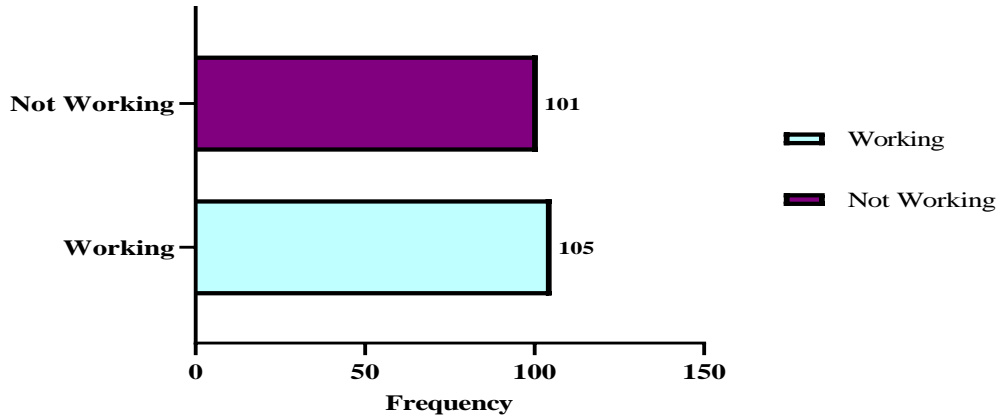


Figure No.3 Distribution according to occupation

4. EDUCATION STATUS

The education status of 206 patients, 82(39.8%) were up to PUC, 75 (36.4%) were

degree degrees, followed by 49(23.8%) who were illiterates. The result has been represented in figure No.4

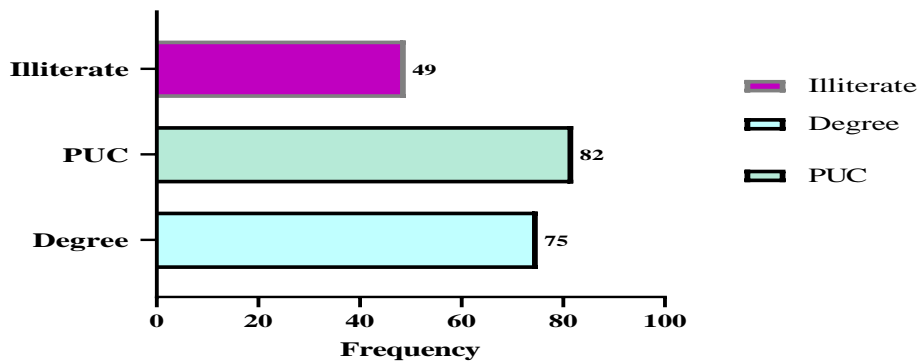


Figure No. 4 Distribution according to education status

5. PAST MEDICAL HISTORY

The study population of 206 patients in this 126 (61.2%) had no past medical history

followed by 80 (38.8%), were history of past medication. The result has been represented in figure No.5

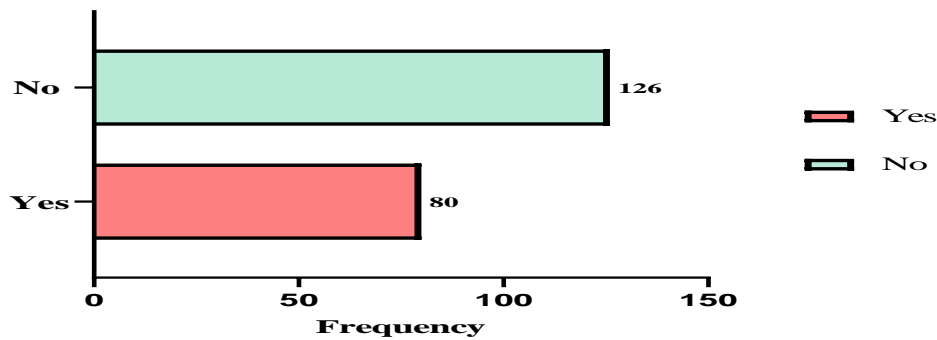


Figure No. 5 Distribution according to past medical history

6. PAST MEDICATION HISTORY

Among 206 patients, 115(55.8%) have no past medication history followed by 91 (44.2%), had a past medication history. The result has been represented in figure No.6

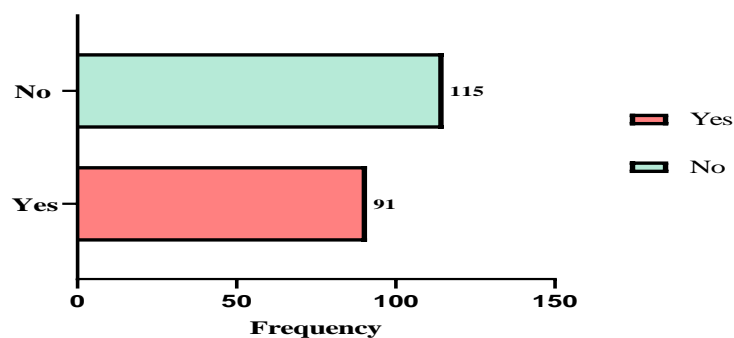


Figure No. 6 Distribution according to past medication history

3.2 DISEASES

In 206 patient prescription most common disease were Tinea 50(24.2%) followed by dermatitis 35 (16.9%), acne vulgaris 23(11.1%), scabies 15 (7.2%), others 15(7.2%), eczema 12(12%), Urticaria 7(3.3%), Candidiasis 6(2.9%), PMLE [polymorphous light eruption] 5(2.4%),

Varicella 5 (2.4%), Xerosis 5(2.4%), Insect bite reaction 4(1.9%), Pruritus 4(1.9%), TSDF [topical steroid damaged face] 4(1.9%), Vitiligo 4(1.9%), Hansen's disease 3(1.4%), Hyperpigmentation 3(1.4%), Lichen planus 3(1.4%) and Psoriasis were 3(1.4%).

The result has been represented in figure No.7

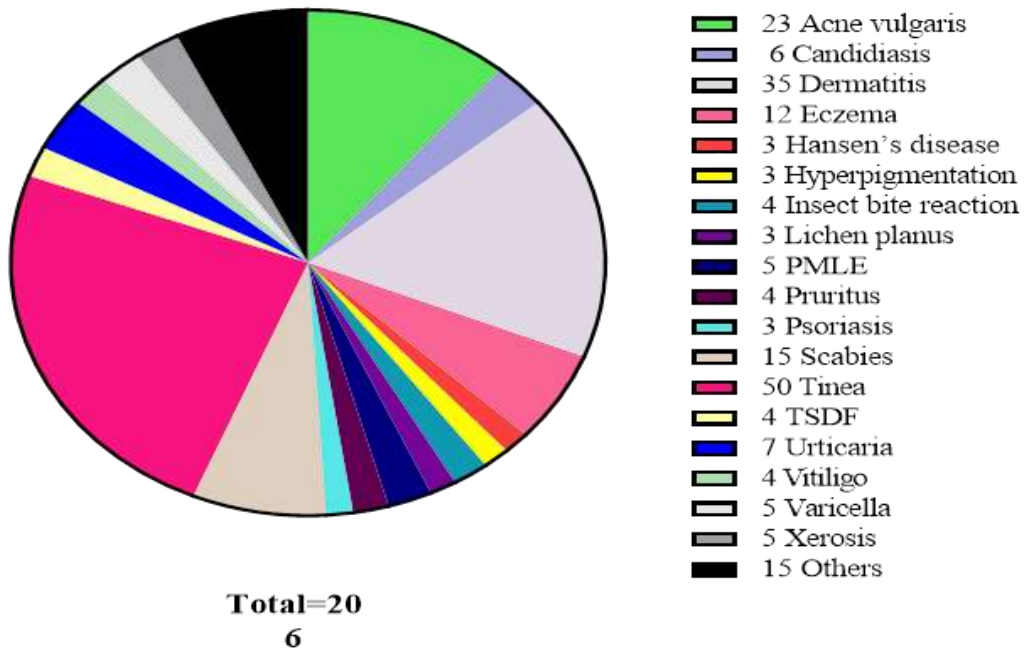


Figure No. 7 Distribution according to diseases

In Tinea, the most common were Tinea corporis 20 (40%), followed by Tinea cruris 13

(26%), Tinea intertigo 6 (12%), Tinea faciei 4 (8%), Tinea pedis 4 (8%), Tinea versicolor 3 (6%). The result has been represented in figure No.8.

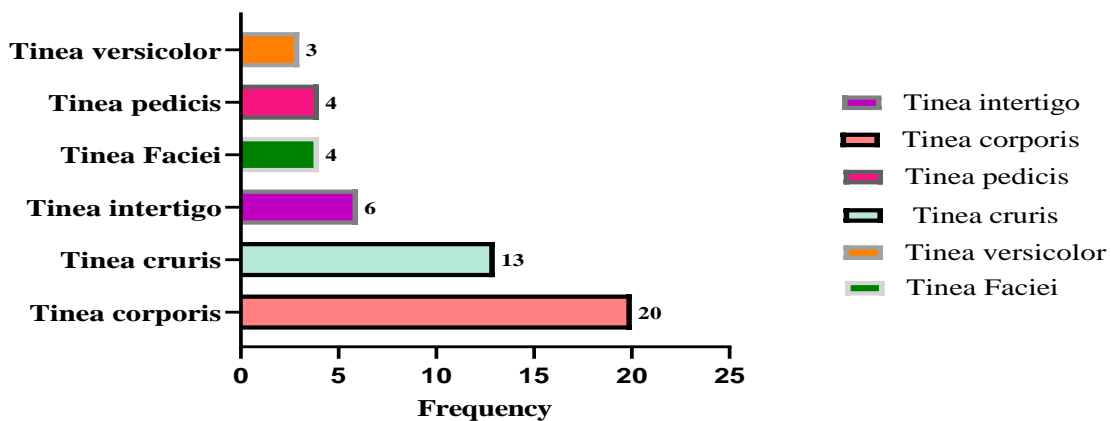


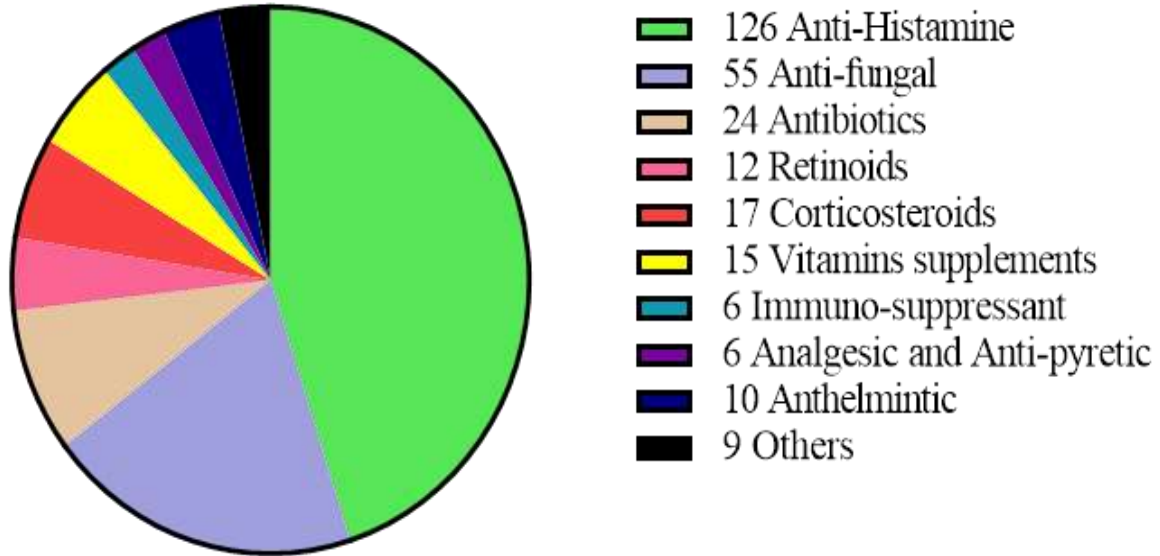
Figure No. 8 Distribution according to Tinea disease

3.3 MEDICATION

1. ORAL DRUGS

Among 206 prescription the most common oral drugs were antihistamine 126 (45%), followed by antifungal 55 (19.8%), antibiotics 24 (8.5%),

corticosteroids 17 (6%), vitamin supplements 15 (5.3%), Retinoids 12 (4.2%), Anthelmintic 10 (3.5%), others 9 (3.2%), Immuno-suppressant 6 (2.1%), Analgesic and Anti-pyretic 6 (2.1%). The result has been represented in figure No.9



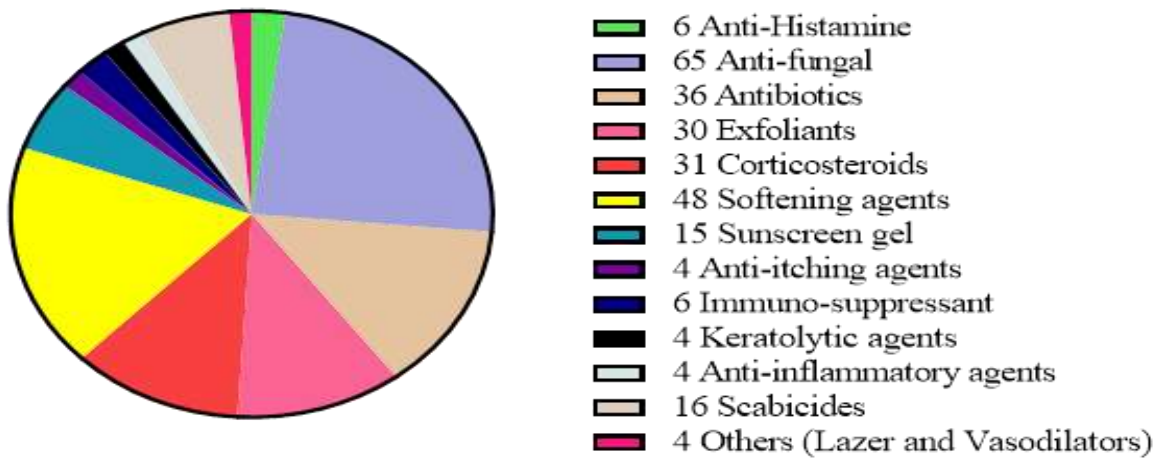
Total=280

Figure No. 9 Distribution according to Oral drugs

1. TOPICAL DRUGS

From 206 patient prescription most, common topical drug was antifungal 65 (24.2%) followed by softening agents 48 (17.9%), antibiotics 36 (13.38%), corticosteroids 31(11.5%), Exfoliants 30 (11.1%), Scabicides 16 (5.9%),

Sunscreen gel 15 (5.6%), Anti-Histamine 6 (2.2%), Immuno-suppressant 6 (2.2%), Anti-itching agents 4 (1.5%), Keratolytic agents 4 (1.5%), Anti-inflammatory agents 4 (1.5%), Others (Laser and Vasodilators) 4 (1.5%).The result has been represented in figure No 10.



Total=269

Figure No.10 Distribution according to topical drugs

IV. DISCUSSION

A prospective observational study was carried out to assess of quality of life and prescription pattern in dermatology outpatients. A total of 206 subjects were enrolled during the study period.

In this study, a total of 206 patients included 16-26 years (41.3%). The age group patients are more affected, followed by 27-37 (19.9%) years.

Out of 206 patients, females 111 (53.9%) are more compared to males 95(46.1%) studies as previously observed in various studies of **Bhandari S²** where males 54.9% was slightly higher than males 45.1%.

According to occupation, 105 (51%) patients were working who followed by 101 (49%) were not working, was observed.

The maximum skin diseases observed up to PUC the is 82(39.8%), Degree 75(36.4%) and illiterates were 49(23.8%). Like a similar study conducted by **Sangeetha T⁶**, the most common disease affected by illiterate patients was 93%, followed by Degree 23.3%. According to social economic status, lower class was 173(84%), followed by lower middle class 16(7.8%), upper class were 9(4.4%) and upper middle class were 8 (3.9%). In past medical history, 38.8% of patients had past medical record and 26% of patients had no history of past medical record. 55.8% patients had past medication history followed by 44.2% having no past medication history.

We interpreted Tinea 50 (24.2%) as the most common diagnosis, followed by dermatitis 35(16.9%) and acne 23(11.1%). Also, we found a similar study conducted by **Gupta S¹⁴** Tinea 15.25% are more affected by skin disease. Tinea is a fungal infection that may be classified as Tinea corporis, Tinea cruris, Tinea faciei, Tinea intertrigo, Tinea pedis, Tinea versicolor etc. In this study, Tinea corporis was 20(40%) followed by Tinea cruris 13 (26%), as a similar study was conducted by **Bhandari S²**, where Tinea corporis was 29.17%.

Among the total number of drugs prescribed, most of them are prescribed oral followed by topical route. In oral drugs anti histamine 126(45%) were the most commonly prescribed drug, followed by antifungal 55(19.6%) and antibiotic 24(8.4%), a similar study conducted by **Pathak KA⁵** Antihistamine 24.13%, followed by antifungal 21.02% and antibiotic 15.91%. In topical antifungal 65 (24.2%) were most commonly prescribed drug followed by softening agent 48 (17.9%) and antibiotic 36 (13.38%) as similar study

conducted by **Vakade PK⁹** miconazole (73.73%) followed by ketoconazole (12.45%) are the most common antifungal agent.

V. CONCLUSION

Skin diseases are one of issues that have greater effects on day-to-day life. Assessment of drug use by analysing prescribing patterns was raised awareness of skin disease and enhanced quality of life. Our study was conducted in a tertiary care the majority of dermatological conditions like fungal infections and eczema should be managed ideally in a primary health care set. To achieve this, institutions should be strong with knowledge of skin diseases and workforce. Timely initiation of treatment along with health awareness regarding controllable risk factors is essential. Public health policies should be accomplished to manage skin disease rationally.

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