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CLINICAL EVALUATION OF PHOTODERMATOSES IN A TERTIARY CARE HOSPITAL

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ABSTRACT

In this study frequency and clinical evaluation of photodermatoses in varied populations of rural and urban areas at a tertiary care centre in BHAVYA hospital located in Rajamahendravaram town of Andhra Pradesh. The study was conducted from January 2018 - June 2018. We aim to find out the occurrence of photodermatoses by population based study, a total of 110 random participants; both male and female were included in the study with selection criteria. Patients of all age groups, Patients who were diagnosed with positive photo dermatoses, Patients who were willing to participate in the study, the type of photo dermatoses involved and most commonest one identified by Prospective, cross- sectional observation study in the Out-patient department of dermatology and venerology. The Research study begins with standard questionnaire for collecting patient's demographic details, diagnosis of the presenting disease condition assesses the duration of exposure. The case study was reported for a period of six months and the data obtained from the questionnaires was analyzed in Microsoft excel 2013. In our study we found that dark skinned individuals are most affected with photodermatoses than fair- skinned individuals. The gender analysis in study reported that females are more affected than males with 65% and 35% respectively. In conclusion we represent that incidence of disease was more in the mid-summer i.e. in the month of May 30%, housewives were more affected with photodermatoses. Polymorphic light eruption (PMLE) was the commonest photodermatoses noticed in many of the individuals followed by actinic purigo and chronic actinic dermatitis.

KEYWORDS: PMLE, Photodermatoses, Six months Case study, 110Population.

1.0 INTRODUCTION

Many diseases are directly or indirectly provoked or exacerbated by sunlight. Sunlight induces a wide variety of dermatoses, acute reactions, such as sunburn, which are induced by excessive UV radiation, must be differentiated from abnormal reactions to sunlight. However, prolonged and therefore cumulative high doses of UV also prematurely age the skin and lead to damage such as skin cancer.[1,2] They are divided into phototoxic and photo allergic reactions to known photosensitizes and idiopathic photodermatoses, in which the photo sensitizer is unknown. However, prolonged and therefore cumulative high doses of UV also prematurely age the skin and lead to damage such as skin cancer. These changes are predominantly caused by medium wavelengths (UV-B, 290–320 NM) and can occur in anyone with sufficiently high levels of UV exposure. Abnormal reactions to UV, however, are predominantly triggered by UV-A radiation (320–400 NM) and do not affect everyone.

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men and woman over a region in Rajahmundry for a period of 6 months.

1.1 Clinical Features

Pruritus is characteristic and significant. Commonly, lesions are symmetrically distributed on sun-exposed skin. Occasionally, mild scarring may be present. The eruption is symmetric, exhibiting erythematous macules that progress to tender papules, vesicles, and crusts Lesions are associated with pruritus or a burning sensation. Some types heal with scarring. In rare cases, patients may also experience malaise, fever, or headaches during flares.[34,35,36]

2.0 MATERIALS AND METHODS

Type of study

Prospective, cross- sectional observation study.

Study site

The study was conducted at Tertiary care Centre, Rajamahendravaram.

Department

Out-patient department of dermatology.

Study period

The study was conducted from january 2018 - june 2018.

Study population

A total of 110 random participants, both male and female were included in the study.

2.1 Aims and objectives

Clinical evaluation photodermatoses presenting to skin care clinic in south India.

1. Occupational comparison of patients with photodermatoses.
2. To confirm the Gender analysis of the patients.
3. To confirm the month of onset to get the Photodermatoses.
4. Which type of photodermatoses is most common one?

2.2 Study criteria

Inclusion Criteria

1. Patients of all age groups were included in this study.
2. Patients who were diagnosed with positive photodermatoses.
3. Patients who were willing to participate in the study.

Exclusion criteria

1. Patients suffering with other than photodermatoses.
2. Patients not willing to participate in the study were taken under exclusion criteria.

2.3 Questionnaire Design

A standard questionnaire for collecting patients demographic details was designed which included all the data of the patient (name, age, gender, educational and employment status Etc.). The questionnaire also included the diagnosis of the presenting disease condition. Along with these details few other questions were also included to assess the status of the patients, previous medical history, family history and duration of exposure.

2.4 Data collection

All the patients were directly interviewed by the researchers. Initially the patient was explained about the type and need of study and the details were collected as per the patients will. The demographic details were collected by asking open ended questions in local language.

2.5 Data analysis

The data obtained from the questionnaires was analyzed in Microsoft excel 2013. (Microsoft Corporation).

3.0 RESULTS

3.1 Gender Analysis

A total of 110 patients are attending to the Tertiary care dermatology hospital we are interviewed in the study among whom the majority were females who constituted a count of 65% (n=71) and males constituted 35% (n=39).

Table-1.

Gender	Frequency	Percentage
Male	39	35 %
Female	71	65 %

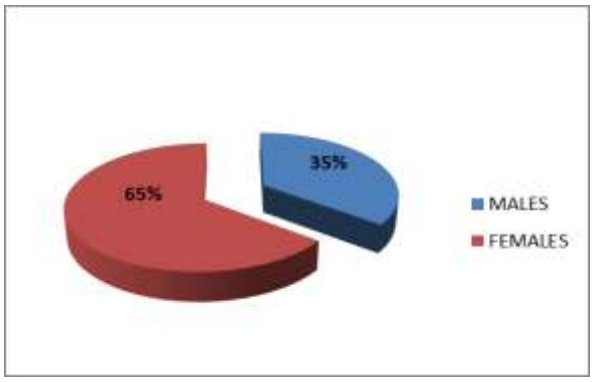

Fig. 1: Based on the Gender distribution in study population.

3.2 Based On Professional Status

From a professional prospective the highest percentage of them affected with photodermatoses were house wives 45% (n=49) followed by others 30% (n=33) and students 25% (n=28) respectively followed by others such as daily wage, unemployed, homemaker and retired. Females who were unmarried and were care takers in home were considered as homemakers. Here in the following table are cited the distribution of the study population as per patients professional data.

Table-02.

Professional status	Frequency	Percentage
House wife	49	45%
Others	33	30%
Students	28	25%

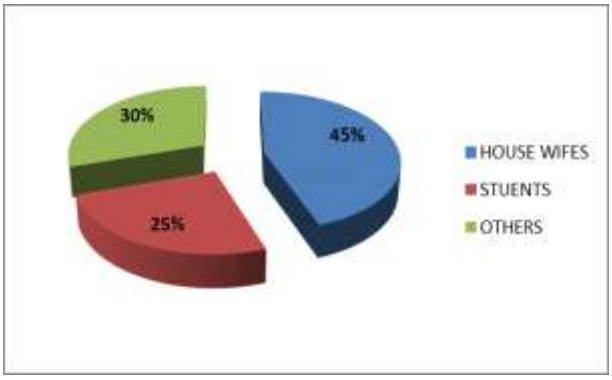

Fig. 2: Based on the analysis of the professional status of Study Population.

3.3 Based On Month of Onset

The Data was also collected based on month of onset. The onset of photodermatoses was in the months of May 37% (n=45) and June 17% (n=20) are higher recorded when compared to the other months.

Table-03.

Month of onset	Frequency	Percentage
January	8	7%
February	12	11%
March	19	17%
April	22	20%
May	33	30%
June	16	15%

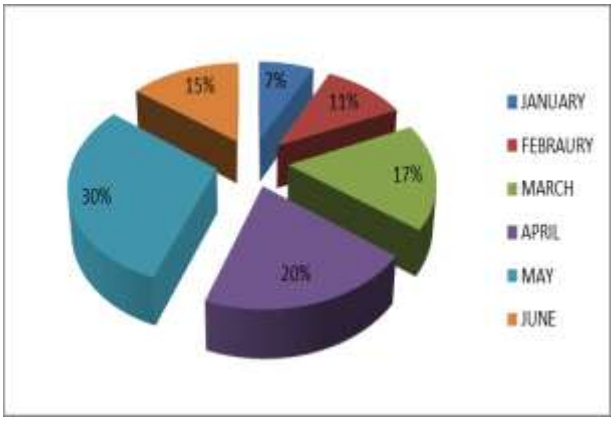

Fig 3: Based on the Analysis of month onset in study population.

3.4 Based on type of Photodermatoses involved

Total of 110 patients attending to Tertiary care dermatology hospital were diagnosed by physical appearance of the lesions. Among which the majority were diagnosd with Polymorphic light eruption 55% (n=61) followed by Actinic purigo 13% (n=14), Chroinic actinic dermatitis 10% (n=8) followed by other types.

Table-04.

Type of photodermatoses	Frequency	Percentage
Actinic purigo	14	13%
Chronic actinic dermatitis	8	7%
Solar urtricaria	11	10%
Polymorphic light eruption	61	55%
Lupus erythematous	6	6%
Acute Dermatitis	10	9%

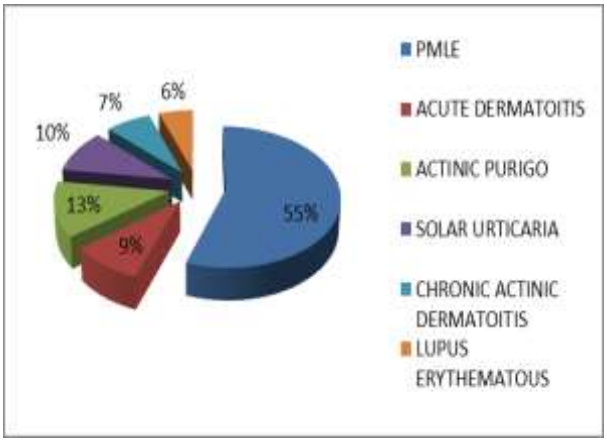

Fig. 04: Based on type of Photodermatoses involved in the study population.

4.0 DISCUSSION

According to the study conducted by author Basnet A *et al.*[3] A study conducted in north India, Onset of disease was mostly occurred in the months of February and august where as in our study the prevalence of photodermatoses was mostly seen in may and June months with 37% and 17% respectively. In our study the incidence of disease was more in the mid-summer i.e. in the month of may where as in the study conducted by Basnet A *et al,*[3] the incidence was more in month of march which is beginning of summer.

Polymorphic light eruption was the commonest photodermatoses noticed in many of the individuals followed by actinic purigo and chronic actinic dermatitis. where as in other studies reported by authors V.K. Sharma *et al*[53] second commonest photodermatoses is chronic actinic dermatitis, as per S. W. Khoo *et al*[54] second commonest photodermatoses is systemic drug photosensitivity, according Ros AM *et al,*[57] and Alexander J Stratigos *et al,*[55] next to polymorphic light eruption, the commonest photodermatoses is solar urticarial.

Comparing our results with the study conducted by Lata Sharma and Basnet A in north India especially in Varanasi, Uttar Pradesh, we found that the pattern of

photodermatoses in north Indian population is same as in south Indian population. We didn't find any difference in our study compared with these two studies. So as per our studies pattern of photodermatoses is almost same throughout the India.

5.0 CONCLUSION

In our study accounts to the conclude that is similar to many other studies conducted on clinical evaluation of photodermatoses. During the study period we identified 110 patients who were diagnosed as photodermatoses were included in our project. In this study conclude that the PMLE (55%) is the common one followed by the actinic purigo (13%) and solar urtricaria (10%) and the females (65%) formed the majority of population affected with photodermatoses to that of males (35%).

When compare to the occupational status Housewives are more effected (45%) followed by the Students (25%) and others like Formers and daily wages (30%).

The onset of Photodermatoses was in the months of April and May in 20% and 30% of the cases, respectively. This is high when compared to the other months. During these months, this is the time when the sun shines on the equator and the days and nights are of almost equal length.

Finally the authors conclude that exposure to high temperature during Noon time has to be avoided and further research work can be enhanced by comparing the disease prevalence over a group of population in various zones of state and geographic conditions.

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7.0 CONFLICT OF INTEREST

The authors do not have any conflicts of interest.

List of Abbreviations

PMLE- Poly Morphic Light Eruption,
CAD- Chronic Actinic Dermatitis,
UVA-Ultraviolet-A,
UVB- Ultra Violet-B

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