

A Clinico-Epidemiological Study on Melasma in North Andhra Pradesh of IndiaBTVN Raju^{1,4}, KV Chalam², D Sailaja³, S Sandhya⁴¹Assistant Professor, Department of DVL, Andhra Medical College, Visakhapatnam, Andhra Pradesh, India²Associate Professor, Department of DVL, Government Medical College, Srikakulam, Andhra Pradesh, India³Assistant Professor, Department of General Medicine, Government Medical College, Srikakulam, Andhra Pradesh, India⁴Assistant Professor, Department of DVL, Andhra Medical College, Visakhapatnam, Andhra Pradesh

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Conflict of interest: Nil

Abstract:

Background: Melasma is an acquired bilaterally symmetrical facial hypermelanosis and tan to brown(epidermal) or bluish(dermal) in colour. It is more common in women. Nowadays Melasma is one of the most common pigmentary disorder in patients attending to dermatology clinics. There is a limited number of studies regarding Clinico-epidemiological features of Melasma, that's why we are doing this study for awareness of upcoming dermatologists.

Aims: Our present study was aimed to describe clinical and epidemiological features of Melasma in patients attended to dermatology department of King George Hospital, affiliated to Andhra Medical College, Visakhapatnam, Andhra Pradesh, India.

Materials and Methods: In our study, total Hundred patients of Melasma attended to our DVL OPD of KGH, Visakhapatnam were included to evaluate clinical, epidemiological data and excluded patients with other causes of facial hyperpigmentation.

Results: In our study, majority of the patients belong to age group of 25-45 yrs(71%). Women(82%) were more affected when compared with men(18%). In most of the patients duration is more than 3 years(69%) with recurrences after medication. Recurrences observed mainly in patients occupation with sun light exposure i.e. occupational labour. In woods lamp examination, epidermal type (superficial, 90%) and clinically centrofacial pattern(60%) observed in majority of the patients.

Conclusion: According to our study, in North Andhra Pradesh, Melasma is most commonly seen in reproductive age group, especially in females. Recurrences are most common after using Kligman's regimen (topical) in patients frequently exposed to sunlight without application of sunscreen.

Keywords: Melasma, Sunlight, Centrofacial, Woods Lamp, Epidermal.

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Introduction

Melasma is an acquired hyperpigmentation disorder, also described as chloasma and mask of pregnancy affecting most commonly face. This is the most common pigmentary disorder in middle aged Indian women and less common in men. It's usually presents as brown colour macular rash either light brown or dark brown. Center of the face is commonly involved. Under Woods lamp examination, pigmentation of epidermal type is more accentuated when compared with dermal type. Melasma has psychological impact on quality of life. Pathogenesis is not clear, but Biologically active melanocytes and sunlight (UV light) exposure play key role. It affects all races and rare

before puberty. Clinically it is classified into three patterns (Centrofacial, malar and mandibular) and based on Woods lamp examination two types (epidermal, dermal, mixed and indeterminate)[2]. Our study was aimed to evaluate, aetiological, epidemiological, clinical patterns and causes of recurrences in Melasma.

Materials and Methods

Our study was a prospective study, to assess the epidemiological and clinical patterns of Melasma. Total Hundred (100) Melasma cases seen in our DVL OPD of KGH affiliated to Andhra Medical College, Visakhapatnam were enrolled and

assessed. We have excluded other acquired hyperpigmentation disorders of face. We recorded the demographic data as age, sex, occupation, address, drug history, triggering factors (pregnancy, Sun light, OC pills) recurrences after treatment, clinical patterns and woods lamp examination to know the epidermal or dermal involvement. Complete dermatological examination was done to know any other dermatological disorders along with Melasma.

Statistical Analysis: Ratios and percentages were used.

Results

In our study total 100(patients) clinically diagnosed melasma cases were assessed . Out of hundred patients, 71 patients were between 25-45 yrs age group(71%) and in the remaining 29 patients above 45 years were 20(20%) and below 25 years were 9(9%). Females are more when compared with males. Out of Hundred patients, 90 patients were females, only 10 patients were males. Most of the female patients had melasma after pregnancy and some young females got melasma due to OC pills usage(40 female patients). In females, more number was observed in who exposed to sunlight and irregular menstrual cycles. In males, whose occupation was related to sunlight exposure and

family history and who used tetracyclines, the incidence was more. In females youngest patient was 20 yr old and in older age group 45 yr old. In males all were between 35-45 yrs age group. Recurrence rate was more in patients on irregular treatment and who exposed to sun light frequently without using sun screen. Response to topical Kligman regimen was less in men when compared with women. Under Woods lamp examination, 68 patients shown enhanced light contrast and the pigmentation was light brown in colour on clinical examination. In the remaining 32 patients, 20 were mixed type and 12 were dermal type, shown bluish discolouration under woods lamp. Most of the patients were treated with Kligman regimen and few patients especially mixed and dermal type were treated with Glycolic acid 50% strength chemical peel and IPL laser. Recurrences were observed after 6 months especially in patients treated with kligman regimen and who were stopped using sunscreen. Out of hundred patients, 60% of the patients(number 60) had more than one year to 3 years duration, 30% patients had less than one year duration (number 30)and 10% patients(number 10) had more than 3 years duration. Clinically Centrofacial with malar pattern was observed in 90% of patients (number 90).

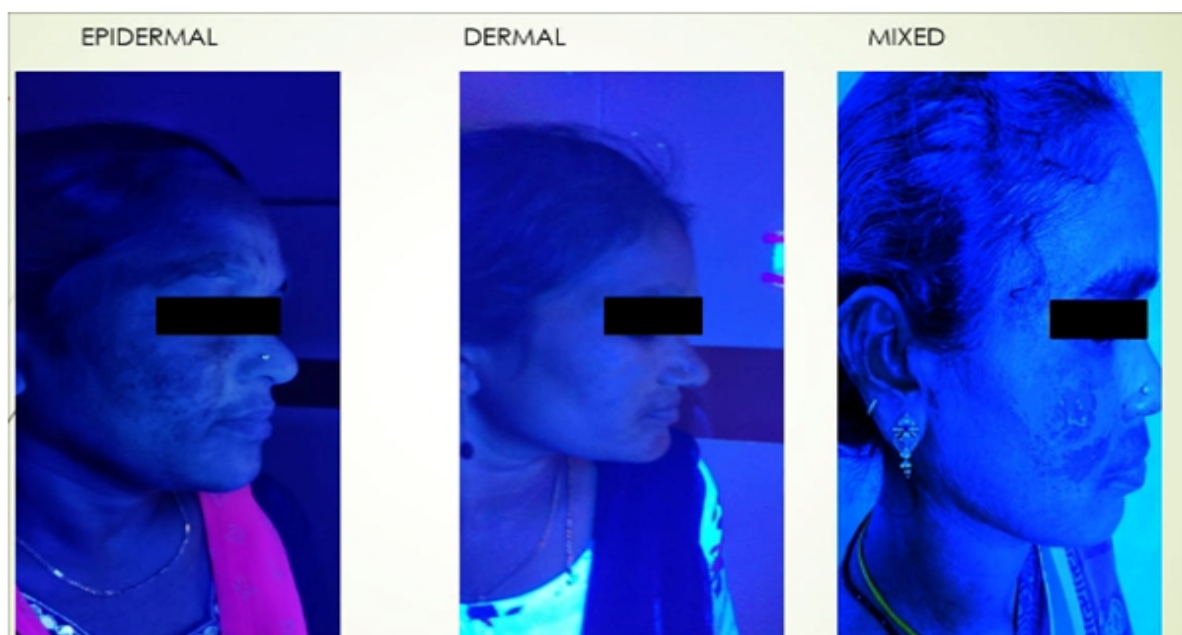


Figure 1: Melasma patterns under Woods lamp examination



Figure 2: Melasma epidermal type clinical and woods lamp accentuation



Figure 3: Malar with Mandibular pattern



Figure 4: Melasma with Centrofacial with Malar Pattern



Figure 5: Melasma with malar pattern



Figure 6: Melasma with Malar pattern

Discussion

Melasma is one of the most common acquired facial hyperpigmentation disorders and it has most cosmetic importance especially in females. Most of the women are getting this hyperpigmentation disorder after pregnancy, who are on OC pills and also who are exposing to sunlight frequently, family history of melasma. In our study total 100 melasma cases were included to assess the clinico-epidemiological patterns. We have done this study to create more awareness to public and upcoming dermatologists why because, at present people are giving more importance to cosmetic problems especially pigmentary disorders due to cosmetic concern and availability of latest cosmetic treatments to melasma. In our study .The mean age group commonly involved was 35 yrs and female to male ratio was 9:1, the age group affected and sex ratio results were comparable with Achar et al. Study[3]. Regarding clinical patterns centrofacial with malar pattern was observed in 90% patients, the results were comparable with Yalamanchili R et al study[4]. Under Woods lamp examination 68% patients were epidermal type, the results were comparable with Iram Qazi et al. Study[5]. In 48 patients(48%) family history of melasma, 40(44.44%)female patients with history of OC pills usage and aggravation with sun light exposure in 76%(76) patients were reported, the results were comparable with Krishnendra Verma et al study [6]. In female patients 20%(18 patients) were developed melasma during pregnancy and in

10%(10 patients) of cases hypothyroidism was reported, the results were comparable with Rao Satish et al. Study[7].

Conclusion

According to our study, in North Andhra Pradesh, Melasma is most commonly seen in reproductive age group, especially in females. Recurrences are most common after using Kligman's regimen (topical) in patients frequently exposed to sunlight without application of sunscreen. Centrofacial with malar pattern is common, Pregnancy, OC pills and thyroid disease are common aetiological factors. Irregular, irrelevant medication and dermal type of melasma are the common reasons for recurrence.

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