



## DERMOSCPIC AND CLINICAL EVALUATION OF FACIAL MELASMA

**Dr. C. Subhashinul** Associate Professor

**Dr. N. L. Sirisha** Assistant Professor

**Dr. A. Prashanthi** Junior Resident

**Dr. Meghana HN** Senior Resident

**ABSTRACT** **Background:** Melasma, an acquired pigmentary disorder that typically affects the sun-exposed areas of the face causes considerable cosmetic disfigurement and psychologic distress among patients. **Objectives:** To study the dermoscopic types of melasma and classify the various types of melasma accordingly **Methods:** One hundred newly diagnosed melasma patients coming to dermatology OPD in RIMS, kadapa were included. Detailed history, clinical examination and relevant investigations were done. Patients who had taken treatment earlier were excluded. Statistical methods like simple proportions, percentage and mean were calculated.

**KEYWORDS :** Melasma, Dermoscopy

### INTRODUCTION

Melasma is a chronic acquired hypermelanosis of the skin characterized by irregular brown macules distributed symmetrically on sun-exposed areas of the body, particularly the face. It commonly affects women and more in pigmented phenotypes (Fitzpatrick skin types III-V). Due to frequent facial involvement, the condition also impacts the quality of life of patients.

Melasma is one of the most common disorders of hyperpigmentation that we see in our daily practice, affecting the quality of life of the patients and having a negative effect, affecting both psychological and emotional well-being, which often leads them to look for a dermatologist. It also has a significant impact on appearance, causing emotional and psycho-social distress, therefore reducing the quality of life of these affected patients.

Diagnosis of melasma remains primarily clinical. Melasma needs to be differentiated from other causes of facial hyper melanosis.<sup>2</sup> A biopsy is typically not done for the diagnosis of face melanosis due to the possibility of pigmentation or scarring developing, as well as the patient's resistance.

Dermoscopy is a noninvasive technique, a proven reliable tool for the direct visualization of skin pigmentation, which is now increasingly used for diagnosing pigmentary disorders. Melasma can typically be diagnosed early thanks to the distinctive dermoscopic patterns, which also assist in distinguishing it from other forms of facial hyper melanosis.

### Case Study

A pre-structured proforma was used to collect the baseline data. After taking a thorough history, a clinical and dermatological examination was performed. Emphasis was laid on the history of exposure to sunlight. In the case of female patients, emphasis was laid on the pregnancy states and consumption of OCPs before the development of melasma. Family history and the presence of any other associated disorders were also noted.

Melasma with a centrofacial, malar, and mandibular clinical pattern was observed.

The MASI score of each patient was calculated using the formula. Area (A) = 0-6 Darkness (D) = 0-4 Homogeneity (H) = 0-4

0 = no involvement; 1 = <10%; 2 = 10-29%; 3 = 30-49%; 4 = 50-69%;

5 = 70-89%; 6 = 90-100%

A contact polarised Dermlite DL1 3rd Gen dermoscopy attached to an iPhone was used to assess the melasma-affected areas. Dermoscopic findings with respect to color and pattern in the affected areas were noted. The dermoscopic finding of each patient was considered as one sample.

Additional investigations, such as skin biopsy, were decided to be carried out in ambiguous cases, but no studies were done in any of the enrolled patients.

**Table-1 Family History Of Melasma**

FAMILY HISTORY	FREQUENCY	PERCENTAGE
Present	11	11%
Absent	89	89%
Total	100	100%

**Table 2 - Age Wise And Gender Wise Distribution Of Cases**

AGE GROUP (in years)	MALE	FEMALE	TOTAL
21-30	9	17	26%
31-40	10	29	39%
41-50	2	26	28%
51-60	1	3	4%
>60	1	2	3%
TOTAL	23	77	100%

**Table-3 Pattern On Dermoscopy**

PATTERNS	CASES	PERCENTAGE
Reticuloglobular pigment	77	77%
Irregular pigment network	28	28%
Black-brown pigment	20	20%
Perifollicular brown-black globules	58	58%
Telengectasia	13	13%

### CONCLUSIONS –

Melasma is more common in women during the fourth decade of life. Exposure to sunlight (97%), family history (11%) and hormonal changes (during and after pregnancy) were those among the various factors influencing the development of melasma.

Centrofacial melasma was the most common pattern seen in our study group.

Epidermal melasma features on dermoscopy were reticuloglobular pattern with a brownish hue while the features of dermal melasma were irregular pattern with a bluish hue and mixed melasma had irregular patchy brown pigmentation.

Perifollicular globules and telangiectasia were also seen.

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