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Clinical study of facial melanosis in a tertiary care hospital

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ABSTRACT

Facial melanosis are a group of disorders characterized by abnormally darker skin that results from Increased melanin production from a normal number of melanocytes. Aims and Objectives: To study the epidemiological and clinical features of facial pigmentary disorders. Methodology: A cross- sectional study was conducted to study the facial melanosis over a period of one year. Results: Our study included 200 patients with facial melanosis among which 92(46%) were melasma, 56(28%) were periorbital hypermelanosis ,24(12%) were freckles, 2(1%) were rehl's melanosis and nevus of ota, 20(10%) were perioral melanosis, LPP were 4(2%). Conclusion: Facial melanoses present with overlapping clinical features, resulting in diagnostic difficulties and significant impact on quality of life. Hence precise clinical insight of conditions affecting face plays major role for better management.

Keywords: *Facial melanosis, pigmentary disorders, melasma, rehl's melanosis, cosmetics.*

1. INTRODUCTION

Facial melanosis are a group of disorders characterized by abnormally darker skin that results from increased melanin production from a normal number of melanocytes.[1] Most facial melanosis are commoner in darker races with both light and photosensitizing chemicals playing an important role. Hyperpigmentary disorders of the face are[2] - Periorbital hyperpigmentation, Melasma, Erythema

dyschromicum perstans (EDP), Lichen planus pigmentosus (LPP), Riehl 's melanosis (RM), Erythromelanosis peribuccale pigmentaire of Brocq (EPP), Poikiloderma of Civatte, Erythromelanosis follicularis faciei et colli, Nevus of Ota, Hori naevi, Ephilides, Lentigens, Post-chikungunya pigmentation, Exogenous ochronosis, Maturational dyschromia.

Unlike most internal illnesses, skin diseases, especially those on face, are often immediately visible to others and therefore lead to significant psychological consequences.[3] This study was done to assess the clinical and epidemiological features of facial melanosis in patients visiting our tertiary care hospitals.

2. AIMS AND OBJECTIVES

To study the epidemiological and clinical features of facial pigmentary disorders.

3. METHODOLOGY:

A cross- sectional study was conducted to study the facial melanosis over a period of one year from November 2018 to November 2019.

Source of data

Patients with facial melanosis attending outpatient department a department of DV at tertiary care

hospital

Method of collection of data

All patients, who presented with the primary symptoms, suggestive of facial melanosis, attending the OPD were subjected to detailed history and clinical examination.During the study period, a total of 200 cases were selected randomly after taking their consent.

Inclusion criteria:

- 1. Patients selected are those attending DVL department with complaints pertaining to Pigmentary condition predominantly affecting face
- 2. Patients with facial melanosis belonging to all age groups and either sex

Exclusion criteria

- 1. Patients who have already been diagnosed and receiving treatment for facial skin disorders
- 2. Patients who have only oral mucosa or only conjunctival involved.
- 3. Non consenting patients.

4. RESULTS

Our study included 200 patients with facial melanosis among which 92(46%) were melasma, 56(28%) were periorbital hypermelanosis ,24(12%) were freckles, 2(1%) were rehl's melanosis and nevus of ota, 20(10%) were perioral melanosis, LPP were 4(2%) which is shown in Table 1.

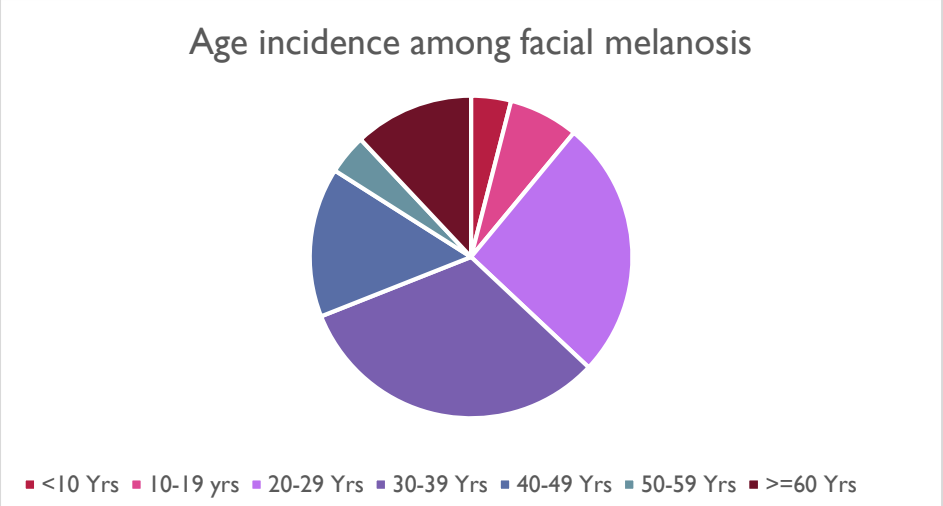
TABLE 1: Incidence of facial melanosis in our study

Condition	Number	Percentage
Melasma	92	46
Periorbital hypermelanosis	56	28
Freckles	24	12
Nevus of ota	2	1
Perioral melanosis	20	10
LPP	4	2
Rehl's melanosis	2	1
Total	200	100

In our study most common age group affected was 30-39 yrs with 64 cases comprising of 32% of all cases of facial melanosis which is shown in table 2 and graph 1

TABLE 2: Age incidence across facial melanosis

AGE(in yrs)	NUMBER	PERCENTAGE(%)
<10	8	4
10-19	14	7
20-29	52	26
30-39	64	32
40-49	30	15
50-59	8	4
>=60	24	12
TOTAL	200	100

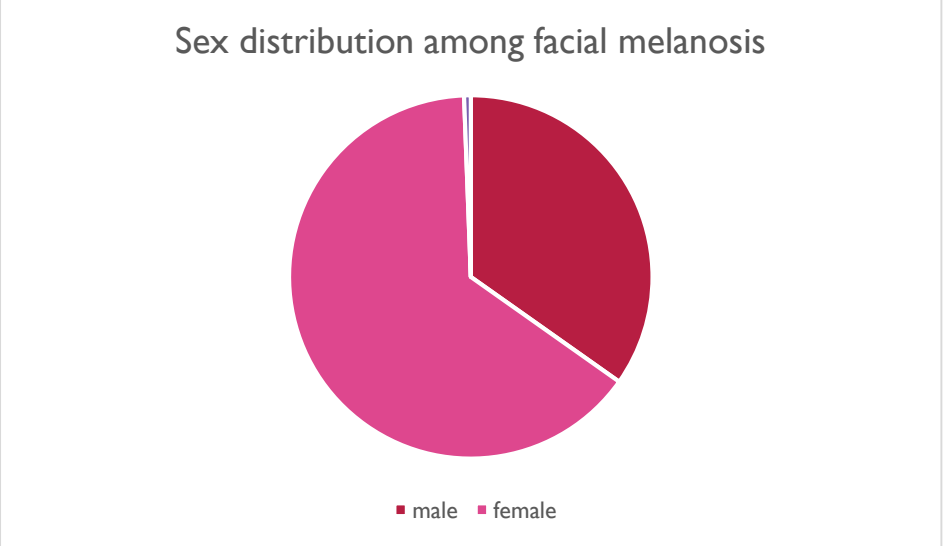


GRAPH 1: Age incidence among facial melanosis

Female to male ratio in our study was 1.8:1 which is shown in table 3 and graph 2

TABLE 3:Sex incidence among facial melanosis

SEX	Number	percentage
Male	70	35
Female	130	65
Total	200	100

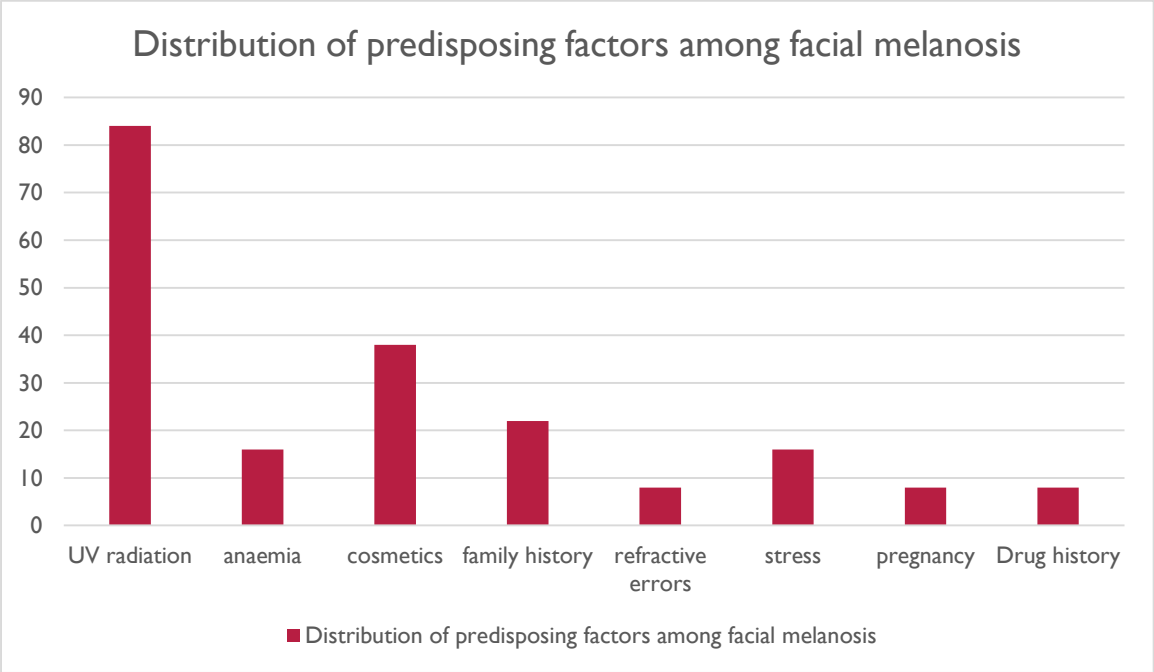


GRAPH 2: Sex distribution among facial melanosis.

In our study 42% of facial melanosis had uv radiation as predisposing factors and others were anaemia(8%), cosmetics (19%),Family history(11%), refractive errors(4%), stress(16%), pregnancy (4%), Drug history (4%) which is shown in table 4 and graph 3.

TABLE 4: DISTRIBUTION OF CASES ACCORDING TO PREDISPOSING FACTORS OF PIGMENTARY DISORDERS

PREDISPOSING FACTORS	NUMBER	PERCENTAGE
UV Radiation	84	42
Anaemia	16	8
Cosmetics	38	19
Family history	22	11
Refractive errors	8	4
Stress	16	8
Pregnancy	8	4
Drug history	8	4
Total	200	100



GRAPH 3: Distribution of predisposing factors among facial melanosis.

5. DISCUSSION

Gupta et al studied the hospital records of the patients who were diagnosed with facial hypermelanoses. They included only male patients.[4] They collected data on various factors.Skin biopsy was also carried out. There were a total of 300 male subjects in this study. They were aged between 18-74 years. They found that there were 40.3% of the cases in the age group of 31-50 years. But we found that in the present study there were only 32% cases in this age group. The most common cause was found to be melasma in 76.7% of the cases. The author noted that 10.7% of the cases were having hypermelanoses around the orbit, 8.7% of the cases were having lentigens and freckles, and 4% of the cases were having acanthosis nigricans and noted that it was associated with obesity and diabetes. The authors concluded that the most common causes of facial hypermelanoses were melasma.[4] Melasma constituted the most common facial melanosis in the present study forming 46% of all cases which is in concordance with Hassan et al .[5]

The female: male ratio in melasma in our study was observed to be 1.7:1. This was again discordant to findings of Achar et al[6] who observed a female preponderance with a female to male ratio of approximately 4:1. similar study conducted by Krupashankar et al also reported a 4:1 ratio. This discordance could be because of increased usage of cosmetics in men

nowadays and a small sample size in our study. In our study, about 41.67% patients had significant sun exposure, which they felt was an aggravating factor. Achar et al[6] in his study reported that 55.12% had sun exposure related aggravation, which was almost similar to our study.

Hassan et al [6], Kanwar et al 23 reported 4.1% incidence of LPP which was in concordance with the present study. Earlier studies conducted by Bhutani et al and Vega et al[7] have also reported its occurrence in a similar age group in their patients.

6. CONCLUSION

Facial melanoses present with overlapping clinical features,resulting in diagnostic difficulties and significant impact on quality of life. Hence precise clinical insight of conditions affecting face plays major role for better management.

FIGURES

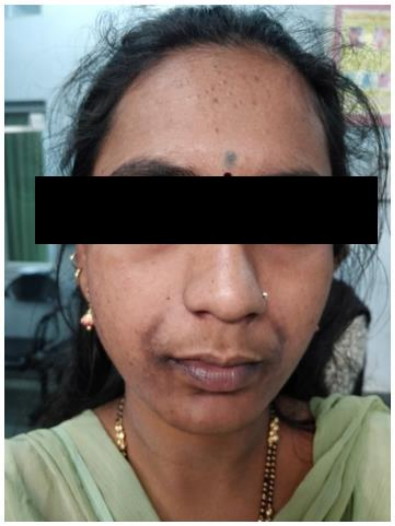


FIGURE 1: Perioral hypermelanosis

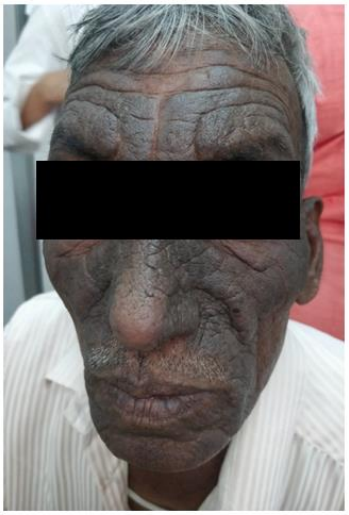


FIGURE 2- Lichen planus pigmentosus

FIGURE 3: Nevus of ota

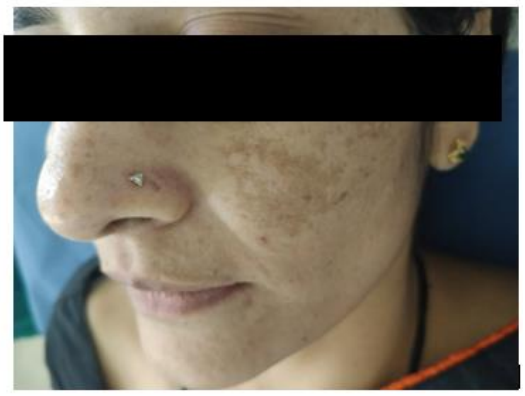


FIGURE 4: Melasma

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