

Association between Melasma Depression and Anxiety a Cross-Sectional Study in MMC Hospital Mardan, Pakistan

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Abstract

Original Research Article

Introduction: Melasma impacts the psychological and emotional well-being of patients. It hurts patients' quality of life. Melasma is associated with significant depression and anxiety. More studies with larger sample sizes are needed to find psychiatric morbidity in melasma patients. **Aim and Objective:** The study's objective was to determine the incidence of depression in melasma patients, let alone correlate. A Cross-sectional study was conducted in the Department of Medical & Psychiatry Unit at MMC Hospital Mardan, Pakistan, To determine the frequency of Melasma in patients. **Settings and Design:** The Department of Medical Unit, MMC Hospital, Mardan, Pakistan, duration of study 6months from 1/09/2021 to 03/3/2022, collaborated on this analysis. The study included all melasma patients who visited a Medical OPD during the study period. **Methods and Material:** The institutional ethics committee approved the study protocol. A specially designed Sociodemographic Performa clinical profile sheet was used to interview patients. Patients who refused to give their consent or who were already receiving depression treatment were excluded from the study. **Statistical analysis:** Data Performa were stored and analyzed in SPSS version 24. Mean + SD were calculated for quantitative variables like age, height, weight, BMI, and duration of symptoms. **Results:** Out of 223 patients, 200 were females, and 23 were males among the 223 patients. The average age of the participants in the study was 30.12 years. The illness lasted an average of 24 months. Thirty percent of the patients were depressed. Anxiety was present in 34.2 percent of the patients. Only one patient had severe anxiety, and most of the patients had mild to moderate anxiety. Age, education, and marital status were statistically significant associations with depression, while age, gender, and marital status were statistically significant associations with anxiety. **Conclusions:** Patients with Melasma are more likely to experience anxiety and depression. Consequently, patients with Melasma should be analyzed for anxiety and depression symptoms. Clinicians should have a proper surveillance program to track the frequency of this problem.

Keywords: Incidence, Melasma, Depression, Anxiety.

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INTRODUCTION

Melasma is a common collected hypermelanotic disorder that affects the face's sun-exposed areas. Brownish macular discoloration of the cheeks, bridge of the nose, chin, forehead [1], and upper lip is a symptom of this disease. Neck and forearm involvement is uncommon. It affects people of all races and genders, with a female preponderance [2]. Hispanics, Asians, and Africans are more likely to

develop this disease [3]. The most common pigmentary disorder among Indians is melisma [4]. Although Melasma is a common cutaneous disorder, ⁵ the prevalence of the disease in most countries is unknown. According to the American Academy of Dermatology, Melasma affects more than 5 million people in the United States [6, 7].

Some pigmentation disorders are more common in Asia, and these differences are due to a

complex interaction of genetics, environment, and cultural practices [8]. The two most common pigmentary disorders in Asia are vitiligo and Melasma. Melasma causes patients distress because it primarily affects the face [9, 10]. It hurts the patients' quality of life. It has an impact on their psychological and emotional health. 350 patients in Brazil completed the MelasQoL (Melasma Quality of Life Scale), and it was discovered that 70 percent of patients said the spots made them feel uncomfortable all of the time or most of the time, 59 percent said they were frustrated, and 72 percent said they were embarrassed.

Some pigmentation disorders are more common in Asia, owing to a complex interaction of genetics, environment, and cultural practices [11, 12]. Vitiligo and Melasma are the two most common pigmentary disorders in Asia. Melasma is distressing to patients because it primarily affects the face. It hurts the quality of life of the patients. It affects their mental and emotional well-being. In Brazil, 350 patients completed the MelasQoL (Melasma Quality of Life Scale), and it was discovered that 69% of patients said the spots made them feel uneasy all or most of the time, fifty-nine percent said they were frustrated, and 72 percent said they were embarrassed [13, 14].

MATERIALS AND METHODS

This study was conducted in the Department of Medicine & psychiatry Unit, MMC Hospital, Mardan, Pakistan, over six months from September 1, 2021, to March 3, 2022. All melasma patients who visited a Medical OPD were included during the study period. The Institutional ethics committee approved the patients' participation in the study protocol. The patients were interviewed using a Socio-demographic Proforma, a clinical profile sheet, and a questionnaire.

Implements:

- Socio-demographic Proforma: A Proforma designed specifically for the study was used to record relevant sociodemographic data, past psychiatric history, family history of

psychiatric disorders, family history of Melasma or any other pigmentary disorder,

- Clinical profile sheet: A Proforma, specifically constructed for this study, was used to record the clinical details related to Melasma and depression.

Presence Criterion:

- All patients with Melasma, depression, and anxiety

Prohibiting criterion:

- Not willing to give consent
- The patient is already on treatment for depression. The patients' written informed consent was taken, and patients were assured of confidentiality. Data obtained was analyzed statistically.

Analysis

Data were analyzed using SPSS 24 Version analysis. Mean scores and standard deviation were derived. The factors associated with depression and anxiety in the patients with Melasma were analyzed by univariate analysis. Chi-square was applied where ever applicable. The level of significance was considered at $p < 0.04$.

RESULTS

Sociodemographic appearances

In the total of 223 cases, n=157 (67.1%) were females, and n=66 (28.9%) were males. The Majority of the patients were in the age group of 25 –60 years, both males and females included, respectively. The youngest patient in our study was 22 years, and the eldest was 65 years old. The mean age was 40.22±7.2 years. The mean duration of the illness was Majority of the patients were literate. Only 20% were illiterate, and three fourth of the patients (60%) had education up to or more than matriculation. The Majority of the patients were paid jobs person. The Majority of the patients were married. And rest of the patients had a joint family.

Table 1: Circulation of patients allowing for P.H.Q-9 scores

Indications	N=223	%
Normal	45	23.08
Mild Depression	66	32.20
Moderate Depression	75	36.42
Moderately Severe Depression	37	11.22
Total	223	100.0

Score on the PHQ-9 and sociodemographic characteristics: A statistically significant relationship between depression prevalence and age, education, and marital status was discovered in demographic analysis of patients with and without depression. Depression was more common in young patients, those with a postgraduate degree, and those who were not married.

In terms of various sociodemographic variables such as gender, no significant differences were found between patients with and without depression. Score on the GAD-7 and sociodemographic characteristics: When patients with and without anxiety were compared, a statistically significant link was discovered between anxiety and sociodemographic characteristics like age,

gender, and marital status. Anxiety was more common in young, female, and unmarried patients. There were no significant differences between the patients.

In terms of various sociodemographic characteristics such as place of residence (rural/urban), family type, education, occupation, family history of psychiatric illness, history of depression, length of illness, and family history of Melasma.

Table 2: Spreading of patients according to sex and age-wise =N-223

Participant	Patients Sex	Patients Age	Conclusion
Mean Median	0	0	0
	11	11	11
Std. Deviation	1.70	4.50	2.57
Range	2.00	5.00	3.00
Minimum	.458	2.504	.732
Maximum	1	9	3
Total n=223			

Table 3: Frequency of patients sex percent wise total n=223

Patients Sex				
No of Patients	Frequency	Percent	Valid Percent	Cumulative Percent
MALE	66	28.2	29.6	29.6
FEMALE	157	67.1	70.4	100.0
Total	223	95.3	100.0	
Total	223	100%.0		

Table 4: Conclusion of the study

Indication	Frequency	Percent	Valid Percent	Cumulative Percent
Depression	31	13.2	13.9	13.9
anxiety	36	15.4	16.1	30.0
Melasma Depression and Anxiety	157	66.2	69.5	99.6
Total	223	100%.0		

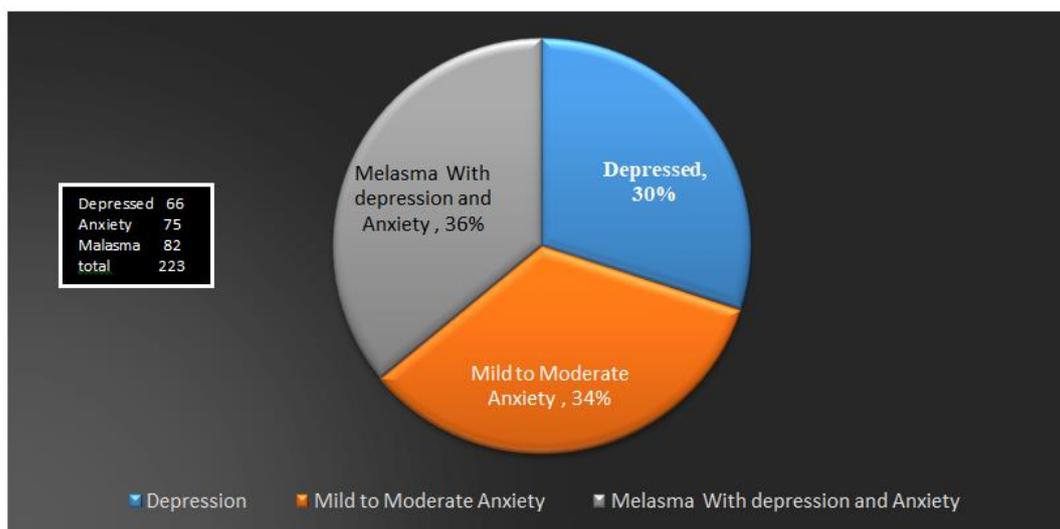


Figure 1: Demographically Chart Of Patients =N-223

DISCUSSION

Female patients made up 85% percent of the patients in our study, which is consistent with the fact that Melasma is more common in women [15, 16]. Various studies have discovered a female preponderance in Melasma, as shown in Table 1-3 and Figure 1, which show the overall results of the Singapore study. The patients' average age was 34.42

years, compared to other studies. Positive family history was found in only the patients in this study [17, 18]. Patients in an Indian study had a positive family history due to the smaller sample size.

Depression was found in 34% percent of the patients in our study. The findings are consistent with those of Bashir *et al.*, who found depression in 35.2

percent of patients, but lower than those of Jaiswal *et al.*, who found depression in 85% of patients. Anxiety was present in 34% percent of the patients in our study. 34% percent of the patients had anxiety, and 30% had depression. The disparity in outcomes could be due to the different scales used. In the sample size of our study, we discovered a statistically significant link between depression and age, education, and marital status, as well as a statistically significant link between anxiety and age, gender, and marital status. Despite our best efforts, we could not locate any research linking depression, anxiety, and various sociodemographic factors.

To summarize, Melasma is linked to depression and anxiety. More studies with a larger sample size are needed to find psychiatric morbidity in melasma patients.

CONCLUSION

Patients with Melasma are now more likely to experience anxiety and depression. Consequently, patients with Melasma should be analyzed for anxiety and depression symptoms, and clinicians should have a proper surveillance program to track the frequency of this problem.

The sample size was quite small. It was a hospital-based scientific study. Patients were only assessed using the PHQ-9 and GAD-7 and not by a psychiatrist using a structured clinical interview. Only anxiety and depression were examined.

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