

# Treatment Seeking Behavior In Patients Suffering From Melasma

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## ABSTRACT

**Introduction:** Melasma is a common hypermelanosis that typically involves sun exposed areas in the face. Genetic, hormonal and UV radiations are important factors in its pathogenesis. Usually patients with melasma seek medical advice late after they have made their skin worse. So awareness regarding treatment of melasma is needed. **Objective:** To determine treatment seeking behavior in patients with Melasma. **Study Design:** Descriptive case series. **Setting:** Dermatology department of DHQ, Allied Hospital Faisalabad & Sir Ganga Ram Hospital Lahore. **Methodology:** By using non-probability consecutive sampling 104 individuals having melasma age ranges from 18-47 years of both gender were included. Questions asked from the patients regarding their treatment attitude included contact with doctor, self medication or any remedy, level of education and living background. **Results:** Out of 104 patients 103(99%) were females and 1(1%) male with mean age was  $30.13 \pm 7.71$ . 26(25%) consulted skin specialists in public sector hospitals. 26(25%) patients used self medication.

17(16.3%) patients took no treatment. 13(12.5%) patients took advice from beauticians. 10(9.6%) patients consulted skin specialist in private sector hospitals. 6 (5.8%) patients took advice from general practitioners. Of 104 patients 89(85.6%) patients did not use any sunscreens as part of treatment. Out of 79(76%) patients who belong to urban area 21(26.6%) patients first consulted skin specialist in public sector. Regarding education 7(38.9%) illiterate and 5(41.7%) intermediate patients used self medication, 3(42.9%) primary educated patients did not consult to any one, 6(33.3%) middle passed patients consulted beauticians, 6(26.1%) matriculate and 4(44.4%) graduate patients consulted skin specialist in public sector while 5(29.4%) post graduate patients first consulted skin specialist in private sector. **Conclusion:** Based on the knowledge obtained from the patients, it was observed that patients having melasma have no idea about the disease and whom they should consult after appearance of melasma. **Key words:** Melasma, Hypermelanosis, Self medication, Sunscreens.

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## INTRODUCTION

Melasma is a common, light to dark brown irregular slowly developing, symmetrical hypermelanosis of the face. This disorder is greatly concerning to the young to middle-aged asian women. It is divided into three types, epidermal, dermal and mixed.<sup>1</sup> Epidermal type has increased melanin pigment predominantly in the basal and suprabasal layers of epidermis which becomes accentuated on wood's lamp examination. The dermal variant has melanin-laden macrophages in the perivascular distribution in the superficial and deep dermis without wood's lamp accentuation. The mixed type has elements of both and

appears as deep brown color on wood's lamp examination.<sup>2</sup> Melasma is known to have a multifactorial etiology. Contributory factors include increased UV exposure, pregnancy, use of cosmetics, genetic factors and hormonal therapy. There is an increased synthesis of melanosomes in melanocytes and increased transfer of melanosomes to keratinocytes.<sup>3</sup> Conventional therapy for melasma consists of keratolytics (tretinoin, resorcinol, glycolic and trichloroacetic acid etc) and depigmenting agents (hydroquinone, kojic and azelaic acid).<sup>4</sup> It is observed that patients of melasma present very late to the dermatologists. They use self medications advised by friends and colleagues. Many patients are impressed by publicity in media. Due to their

ignorance they spoil their skin by using wrong medications and beauty creams. So a study is designed to know the treatment seeking behavior in patients suffering from melasma.

### PATIENTS AND METHODS

This was a descriptive case series study conducted at dermatology outpatient departments of D.H.Q, Allied hospitals Faisalabad and Sir ganga ram hospital Lahore, tertiary care hospitals during June 2012 to December 2012. 104 patients of melasma both male and female were included in the study. They were diagnosed by qualified dermatologists and interviewed in OPD after obtaining their consent. All the informations obtained from the patients were recorded in the preformed proforma having details of their treatment seeking behaviour.

SPSS V-17 was used for statistical analysis. Descriptive analysis was applied on the data. Frequency and percentage was calculated for all qualitative variables. Mean and standard deviation was calculated for quantitative variables. Chi-square test was applied on qualitative variables. P-value < 0.05 was taken as significant.

### RESULTS

Out of 104 patients 103(99%) were females and 1 (1%) male. Age of the patients ranged from 18-47 years with a mean  $30.13 \pm 7.71$  years. The duration of disease was ranging from 1 month to 20 years with mean  $38.40 \pm 45.20$  months. Most of the patients 79 (76%) belong to urban areas. After the appearance of melasma only 26 (25%) of patients consulted skin specialist in public sector. 26 (25%) took self medications both oral and topical mostly beauty creams and topical steroids.

17 (16.3%) patients took no treatment. 13 (12.5%) patients took advice from beauticians. 10 (9.6%) patients consulted skin specialist in private sector. 6 (5.8%) patients took advice from general practioners. 40 (38.5%) patients adhere to the prescription for longer times and 64 (61.5%) patients left the treatment against the medical advice. 89 (85.6%) did not use any sunscreen and 15 (14.4%) used sunscreens as part of treatment. As compared to rural area more patients belong to urban area consulted skin specialist in public sector 5 (20%) vs 21 (21.6%) as well as in private sector 2 (8%) vs 8 (10.1%) respectively. Regarding education 7(38.9%) illiterate and 5(41.7%) intermediate patients used self medication, 3(42.9%) primary educated patients did not consulted to any one,

6(33.3%) middle passed patients consulted beauticians, 6(26.1%) matriculate and 4(44.4%) graduate patients consulted skin specialist in public sector while 5(29.4%) post graduate patients first consulted skin specialist in private sector.

**Table-1**  
**Demographic profile of patients (n=104)**

Variable	N (%)
<b>Gender</b>	
Male	01 (1%)
Female	103 (99%)
<b>Education</b>	
Illiterate	18 (17.3%)
Primary	07 (6.7%)
Middle	18 (17.3%)
Matriculation	23 (22.1%)
Intermediate	12 (11.5%)
Graduate	09 (8.7%)
Post-graduate	17 (16.3%)
<b>Residence</b>	
Rural	25 (24%)
Urban	79 (76%)
<b>Age of the patients</b> (in years)	30.13±7.71
<b>Duration of disease</b> (in months)	19.48±28.63

**Table-2**  
**Consultation after appearance of melasma, prescription adherence, use of sunscreens and preferred source of treatment (n=104)**

Variable	N (%)
<b>1<sup>st</sup> consultation after appearance of melasma</b>	
MBBS doctor	06 (5.8%)
Friend	01 (1%)
No consultation	17 (16.3%)
Self medication	26 (25%)
Medical store	01 (1%)
Skin specialist (public)	26 (25%)
Skin specialist (private)	10 (9.6%)
Paramedics	01 (1%)
Homeopath	02 (1.9%)
Hakeem	01 (1%)
Beautician	13 (12.5%)
<b>Prescription adherence</b>	
Yes	40 (38.5%)
No	64 (61.5%)
<b>Use of sunscreens</b>	
Yes	15 (14.4%)
No	89 (85.6%)

**Table-3**

**Relationship of level of education and residence to consultation with skin specialist (n=104)**

Variable	1 <sup>st</sup> Consultation After Appearance of Melasma											P -Value
	MBBS doctor	Friend	Beautician	Medical store	Skin specialist (public)	Skin specialist (private)	Para-medics	Homeopath	Hakeem	No consultation	Self Medication	
<b>Residence</b>												
Rural	0	1(4%)	6 (24%)	0	5 (20%)	2 (8%)	0	0	0	5 (20%)	6 (24%)	0.371
Urban	6 (7.6%)	0	7 (8.9%)	1(1.3%)	21(26.6%)	8 (10.1%)	1 (1.3%)	02 (2.5%)	1(1.3%)	12 (15.2%)	20 (25.3%)	
<b>Education</b>												
Illiterate	0	0	2(11.1%)	0	4(22.2%)	2(11.1%)	0	0	0	3(16.7%)	7(38.9%)	0.342
Primary	1(14.3%)	1(14.3%)	1(14.3%)	0	1(14.3%)	0	0	0	0	3(42.9%)	0	
Middle	1(5.6%)	0	6(33.3%)	1(5.6%)	3(16.7%)	1(5.6%)	0	0	0	1(5.6%)	5(27.8%)	
Matriculation	1(4.3%)	0	2(8.7%)	0	6(26.1%)	1(4.3%)	1(4.3%)	1(4.3%)	1(4.3%)	5(21.7%)	5(21.7%)	
Intermediate	1(8.3%)	0	1(8.3%)	0	4(33.3%)	0	0	0	0	1(8.3%)	5(41.7%)	
Graduate	1(11.1%)	0	1(11.1%)	0	4(44.4%)	1(11.1%)	0	0	0	1(11.1%)	1(11.1%)	
Post-graduate	1(5.9%)	0	0	0	4(23.5%)	5(29.4%)	0	1(5.9%)	0	3(17.6%)	3(17.6%)	

**Figure-1**



**Figure-2**



**DISCUSSION**

Hyperpigmentary disorders; especially melasma and post inflammatory hyperpigmentation (PIH) , cause significant social and emotional stress to the patients.<sup>5</sup>

It is observed that due to the lack of awareness most of the patients who come to a dermatologist have used many self medications, beauty creams and consulted unqualified people.

They usually have steroid rosacea, hypertrichosis and steroid induced acne. Although melasma is sometimes difficult to treat but it should not be treated wrongly with high potency topical steroids. There is no study available regarding the treatment seeking behaviour of patients with melasma.

During our study we have observed that only 1/4<sup>th</sup> of the patients with melasma consulted skin specialist in public as well as private sector. Rest of the patients took advice from beauticians and used self medications, mostly beauty creams and high potency topical steroids. These patients were impressed by the publicity of these creams. Those patients who consulted beauticians they were also prescribed beauty creams. One fourth patients did not took any advice for melasma until it had increased and then they consulted the dermatologist.

The results indicate that most of the patients have no idea about their disease and to whom they should

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consult after the appearance of melasma. Many patients did not use the treatment for longer times and most of the patients did not use any sunscreen as a part of treatment. Those patients who consulted skin specialist were satisfied and consider them the preferred source of treatment. Patients coming from urban populations consulted the skin specialists most probably due to availability of qualified dermatologist in the cities. The level of education is also related to the treatment seeking behavior of patient. Patients more educated i.e. education above matriculation influenced their treatment seeking behavior.

The studies on treatment seeking behavior in patients with melasma have not been done locally. In the developed countries topical steroid and other medicines are not available as over the counter drugs. So patients of melasma do not use them. The beauty creams without their ingredients mentioned are not allowed to sell. So the dermatologists do not come across such patients who maltreated their melasma and such studies are not available in literature.

We suggest that extensive public awareness is needed regarding the etiology and treatment of melasma. Our rural and urban populations should be educated that melasma is a skin disease. It should be treated as early as possible. Patients should consult qualified skin specialist, long term treatment is required and sunscreens are mainstay of treatment. High potency topical steroids are not appropriate treatment of melasma and they have many permanent untoward effects on skin.

#### **CONCLUSION**

Melasma is common skin condition. Most patients do not seek proper medical advice. Extensive awareness is needed to deal with this common disease

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