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Homoeopathic Management of Melasma: A Case Report

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ABSTRACT :

Melasma is a common acquired disorder of hyperpigmentation characterized by symmetrical, irregular, light-to-dark brown macules or patches, predominantly affecting sun-exposed areas of the face. It is influenced by ultraviolet and visible light exposure, genetic predisposition, hormonal factors and changes in the cutaneous microenvironment. [1]

The present case report describes the homoeopathic management of a 30-year-old male patient presenting with gradually progressive, symmetrical brownish pigmentation over the forehead, cheeks and nose. The case was evaluated through detailed history taking, general examination, local examination and repertorial analysis. A totality of characteristic mental, general and particular symptoms was constructed. Natrum muriaticum was selected as the similimum in this illustrative case and prescribed according to the individualised homoeopathic assessment.

The patient was followed periodically with clinical photographs and assessment of pigmentation. Improvement was documented clinically over the follow-up period. The case highlights the importance of individualisation, totality of symptoms and systematic follow-up in homoeopathic case management. However, a single case report cannot establish treatment efficacy or causation; controlled clinical research is required to determine the effectiveness of homoeopathy for melasma.

Keywords: Melasma, facial pigmentation, hyperpigmentation, homoeopathy, Natrum muriaticum, individualisation, repertorization, computer Homoeopath classic software repertory.

Introduction

Melasma is an acquired chronic hyperpigmentary disorder presenting mainly as bilateral, blotchy brownish pigmentation of the face. It commonly affects the cheeks, forehead, nose and upper lip. [2] [3]

It is particularly common in individuals with Fitzpatrick skin phototypes III–IV and is more frequently observed in women, although men can also develop the condition. Sun exposure is an important aggravating factor. Hormonal influences, family history, medications and phototoxic cosmetic products may also contribute. [2][3]

Recent literature indicates that melasma is more complex than simple melanocyte overactivity. Proposed mechanisms include:

- Increased melanocyte activity
- Increased melanin production
- Abnormal melanin distribution
- Basement-membrane alterations
- Solar elastosis
- Mast-cell involvement
- Vascular changes
- Oxidative stress
- Hormonal influences
- Genetic predisposition. [3] [4]

Clinically, melasma may be classified according to distribution and according to the depth of pigmentation.

Importance of diagnosis

Melasma is generally diagnosed clinically. Wood-lamp examination and dermoscopy may assist in determining the distribution/depth of pigmentation, while serial photographs and severity indices such as MASI can be used to monitor change. [2]

Types of Melasma

A. According to distribution

1. Centrifacial melasma

Pigmentation involves:

Forehead

Cheeks

Nose

Upper lip

It is the most common distribution pattern. [2]



2. Malar melasma

Pigmentation is mainly present over:

Cheeks

Nose



3. Mandibular melasma

Pigmentation is predominantly seen over:

Mandibular region

Jawline

Chin



4. Extrafacial melasma

Pigmentation may occur on:

Forearms

Upper arms

Shoulders

Other sun-exposed sites. [2]

B. According to depth of pigmentation

1. Epidermal melasma

Feature	Epidermal type
Colour	Dark/light brown
Border	Relatively well-defined
Wood lamp	Pigmentation may become more prominent
Response to treatment	Usually comparatively better

[2] [5]

2. Dermal melasma

Feature	Dermal type
Colour	Light brown to blue-grey
Border	Ill-defined
Wood lamp	Usually no accentuation
Treatment response	Usually poorer

[2]

3. Mixed melasma

Mixed melasma contains both epidermal and dermal components and may show a combination of brown and blue-grey pigmentation. It commonly produces a partial response to treatment. [2] [6]



4. Review of Literature

Definition

Melasma is an acquired disorder characterised by symmetrical facial hyperpigmentation. The pigmentation is generally macular, brown to grey-brown and occurs predominantly in sun-exposed areas. [2]

Aetiology and risk factors

Important associated factors include:

1. Ultraviolet radiation

UV exposure stimulates melanogenesis and can aggravate existing melasma.

2. Visible light [7]

Visible light, particularly in darker skin phototypes, can contribute to pigmentation.

3. Genetic predisposition

A positive family history is reported in a substantial proportion of patients. [2]

4. Hormonal factors

Pregnancy and exposure to oestrogen/progesterone-related hormonal influences are recognised associations. [2]

5. Drugs and cosmetics

Certain medications and perfumed/cosmetic products may trigger or worsen pigmentation through phototoxic mechanisms. [2]

5. Pathogenesis

A simplified mechanism is:

UV/visible light + genetic/hormonal susceptibility [7]

↓

Melanocyte activation

↓

Increased melanogenesis

↓

Increased melanin deposition

↓

Epidermal/dermal pigmentation

↓

Clinical melasma

Current research also identifies basement-membrane damage, mast cells, vascular changes, solar elastosis and altered skin microenvironment as contributors. [3] [4]

6. Clinical Features

Typical clinical findings include:

- Bilateral pigmentation
- Symmetrical distribution
- Brown to dark-brown macules
- Irregular borders
- Usually asymptomatic
- Predominantly face involvement
- Exacerbation after sun exposure
- Chronic and recurrent course. [2]

7. Differential Diagnosis of Melasma

Condition	Differentiating features
Melasma	Symmetrical brown facial macules/patches
Post-inflammatory hyperpigmentation	History of preceding inflammation/injury
Solar lentigo	Discrete, well-defined lentiginous macules
Freckles/ephelides	Small pigmented macules, often sun-related
Drug-induced pigmentation	Temporal relationship with medication
Lichen planus pigmentosus	Often grey-brown pigmentation with characteristic distribution
Naevus of Ota	Usually unilateral blue-grey pigmentation
Naevus of Hori	Acquired bilateral dermal melanocytosis
Pigmented contact dermatitis	History of cosmetic/fragrance exposure

These conditions are recognised clinical differentials of facial pigmentation/melasma. [2]

Illustrative Homoeopathic Case Report

Identification Data

Name: Mr. X

Age: 30 years

Sex: Male

Occupation: Teacher

Marital status: Married

Chief Complaints

Patient presented with:

Brownish pigmentation over both cheeks, forehead and nose for approximately 2 years.

Associated features

- Gradual onset
- Progressive pigmentation
- Symmetrical distribution
- No itching
- No burning
- No scaling
- More noticeable after exposure to sunlight
-

History of Chief Complaints

The patient was apparently well approximately two years before consultation.

He initially noticed a small brownish patch over the cheek.

The pigmentation gradually increased in size and intensity.

It subsequently appeared over:

- Both cheeks
- Forehead
- Nasal bridge

The pigmentation was:

- Brownish
- Macular
- Irregularly bordered
- Bilateral
- Symmetrical
- Non-itching
- Non-painful
-

Aggravating factors

- Sun exposure
- Prolonged outdoor work
- Summer

Ameliorating factors

- Avoiding direct sunlight
- Staying indoors
-

Past History

- No previous major dermatological disease.
- No history of chronic eczema/psoriasis.
- No history of significant facial trauma.
- No known chronic systemic illness.
- No previous long-term treatment for melasma.
-

Family History

- Father: clinically healthy.
- Mother: clinically healthy.
- No significant family history of similar facial pigmentation reported.
-

Personal History

- Appetite - Good.
- Thirst - Moderate.
- Desires- Salt, Spicy food
- Aversions - No significant aversion.
- Bowel - Daily stool; occasional constipation.
- Urine - Normal.
- Sleep- Adequate.
- Dreams- Occasionally dreams of work-related activities.
- Perspiration - Moderate.

Thermal state

Chilly patient; prefers warmth.

Mental Generals

On detailed questioning:

- Reserved personality
- Does not readily express emotions
- Sensitive to criticism
- Tends to keep worries to himself
- Irritable when repeatedly questioned
- Dwells on unpleasant past events
- Becomes anxious about appearance because of facial pigmentation

General Examination

Parameter	Finding
Built	Average
Nourishment	Moderate
Consciousness	Conscious and oriented
Pulse	76/min
Respiratory rate	16/min
Temperature	96.7°F
BP	118/76 mmHg
BMI	Within normal range
Pallor	Absent
Icterus	Absent
Cyanosis	Absent
Clubbing	Absent
Lymphadenopathy	Absent

Local Examination**Site**

- Forehead
- Bilateral cheeks
- Nasal bridge

Lesion

- Macular pigmentation
- Brown to dark-brown colour
- Irregular margins
- Symmetrical distribution
- No scaling
- No crusting
- No ulceration
- No bleeding
- No tenderness

Wood-lamp examination

If performed, the report should document whether pigmentation becomes more apparent, which may help identify an epidermal component. Wood-lamp examination can assist in distinguishing epidermal from dermal pigmentation, although interpretation has limitations. [5]

Dermoscopy

If available, document:

- Pigment colour
- Pattern
- Distribution
- Presence/absence of vascular structures

Dermoscopy can provide additional information about pigmentary patterns. [8] [9]

Systemic Examination

Respiratory system

No abnormality detected.

Cardiovascular system

S1 and S2 normal; no abnormal murmur detected.

Gastrointestinal system

Abdomen soft and non-tender.

Nervous system

No gross neurological abnormality detected.

Genitourinary system

No significant abnormality detected.

Investigations

Depending on the clinical situation:

- CBC
- Blood glucose
- Liver function tests
- Thyroid profile where clinically indicated
- Relevant hormonal evaluation where indicated
- Wood-lamp examination
- Dermoscopy
- MASI/mMASI scoring
- Skin biopsy only when diagnosis is uncertain or another condition must be excluded

Provisional Diagnosis

Melasma – facial, symmetrical hyperpigmentation.

Clinical basis

- Chronic acquired pigmentation
- Bilateral symmetry
- Brown macules/patches
- Facial distribution
- Sun aggravation
- Absence of scaling/inflammation

Differential Diagnosis of Disease

Melasma

vs

Post-inflammatory hyperpigmentation

Solar lentigo

Freckles

Lichen planus pigmentosus

Drug-induced pigmentation

Naevus of Ota/Hori

Pigmented contact dermatitis

The clinical history and examination should be used to exclude these possibilities. [2]

Analysis and Evaluation of Symptoms [10] [11] [12] [13] [14]

No.	Symptom	Character	Grade
1	Brown facial pigmentation	Particular	3
2	Bilateral symmetrical pigmentation	Particular	3
3	Pigmentation worse from sun	Particular	3
4	Gradual progressive pigmentation	Particular	2
5	Chilly patient	General	2
6	Desire for salt	General	2
7	Reserved nature	Mental	3
8	Dwells on unpleasant past events	Mental	3
9	Sensitive to criticism	Mental	2
10	Anxiety about appearance	Mental	2

Totality of Symptoms [10] [11] [12] [13] [14]

The working repertorial totality may be expressed as:

- 1.Mind – reserved
- 2.Mind – dwelling on past unpleasant events
- 3.Mind – sensitive to criticism
- 4.Generalities – chilly
- 5.Food and drinks – desire salt
- 6.Face – discoloration/pigmentation – brown
- 7.Face – discoloration – spots
- 8.Face – pigmentation – sun exposure aggravates
- 9.Face – pigmentation – symmetrical

In this case , repertorisation was carried out using the computer Homoeopath classic software(Radar opusSoftware), using complete Repertory. After repertorisation, the top-ranked medicines Natrum Muraticum, Sepia, Sulphur, Nitric acid and Phosphorus were the repertorial result shown in below Figure

Repertorial sheet

	nat-m	sep	sulph	nit-ac	staph	phos	calc	verat	chin	con	ambr	arg-n	carc	caust	ign	puls	mus-t	thuj	vanil	ars	carb-v	hyos	lyc	cocc	dulc
1. MIND - RESERVED (123)																									
2. MIND - DWELLS - past disagreeable occurrences, to (78)																									
3. MIND - SENSITIVE - criticism, to (22)																									
4. CHILL - CHILL in general (247)																									
5. GENERALS - FOOD and DRINKS - salt - desire (115)																									
6. FACE - DISCOLORATION - brown (30)																									
7. FACE - DISCOLORATION - spots (11)																									
8. FACE - SUN - exposure to the sun - agg. (1)																									
9. FACE - DISCOLORATION - brown - Cheek - spots - (1)																									
10. FACE - DISCOLORATION - brown - Forehead - spr. (1)																									

Therapeutic Intervention

Based on repertorization totality of symptoms, Natrum muriaticum 30C was prescribed it the reference of Materia medica.

- One dose prescribed according to the individualised homoeopathic assessment.
- Repetition avoided unless indicated by the follow-up.
- Patient advised not to self-medicate or repeatedly change remedies.

Supportive advice

Sun protection is an important component of melasma management. Current dermatological guidance recommends year-round broad-spectrum protection, including SPF 50+ and measures such as hats/shade; visible-light protection containing iron oxides may also be useful. [2]

Provisional Result

Natrum muriaticum – highest correspondence

followed by:

Sepia
Sulphur
Nitric Acid
Lycopodium
Phosphorus

Differential Remedy Diagnosis [10] [11] [12] [13] [14]**1.Natrum muriaticum**

Reserved, sensitive, dwelling on past events, desire salt, facial pigmentation

Against - Must be confirmed by complete case

2.Sepia

Facial pigmentation, hormonal/chloasma tendency, characteristic mental/general picture

Against - Male case may lack characteristic Sepia generals

3.Lycopodium

Pigmentary complaints with digestive/general features; characteristic mental picture

Against - Desire salt/mental picture less convincing

4.Sulphur

Pigmentation and chronic skin complaints

Against - Thermal/general picture may not correspond

5.Nitric acid:

More irritable/offended, with characteristic ulcerative tendencies, fissures and splinter-like pains; less characteristic for the above pigmentation totality.

6.Phosphorus

Pigmentary disorders and sensitivity

Against - General/mental totality may be insufficient

Final Remedy Diagnosis**Natrum muriaticum**

Selected on the basis of the individualised totality of characteristic symptoms, rather than solely on the diagnosis of melasma.

Homoeopathic rationale

The selection was based particularly on the combination of:

Characteristic mental state

Reserved nature

Dwelling on past unpleasant experiences

Sensitivity

Desire for salt

Chilly constitution

Characteristic facial pigmentation

Sun aggravation

Follow-up with photographic documentation [2]

Follow up 1 :- 0 day

Clinical observation - Brown patches over both cheeks, forehead, nose

Pigmentation – Baseline

General condition – Stable

Prescription - Nat-m 30C

Figure 1 (Before treatment)



Figure 1 (Before treatment)

Baseline-Brownish pigmentation over both cheeks, forehead and nose.

Follow up - 2 :- 4 weeks –

Clinical observation - Slight reduction in intensity

Pigmentation –Mild improvement

General condition – Good

Prescription - Observation Figure 2 (4-week follow-up)



Figure 2 (4-week follow-up)

Slight reduction in intensity

Follow up - 3 :- 8 weeks

Clinical Observation - Pigmentation lighter

Pigmentation - Moderate improvement

General condition - Good

Prescription - No repetition if improving

Figure 3 (8-week follow-up)



Figure 3 (8-week follow-up)

8 weeks-Noticeable improvement in pigmentation.

Follow up – 4 :- 12 weeks

Clinical Observation - Further reduction

Pigmentation – Good improvement

General condition - Good

Prescription – Observation

Figure 4- (12-week follow-up)



Figure 4 (12-week follow-up)
Marked reduction in pigmentation

Follow up – 5 :- 16 weeks
Clinical Observation - Residual Mild improvement
Pigmentation – Sustained improvement
General condition - Good
Prescription – Follow up
Figure 5- (16week follow-up)



Figure 5 (16-week follow-up).
16 weeks-Minimal residual pigmentation.

Assessment of Outcome

For a stronger case report, use an objective scale.

MASI / mMASI

Document:

- Area involved
- Darkness of pigmentation
- Homogeneity

Then report the score at baseline and subsequent follow-ups.

For example:

Time	mMASI
Baseline	XX
4 weeks	XX
8 weeks	XX
12 weeks	XX
Final follow-up	XX

Do not insert invented numerical scores. Calculate them from the actual patient's photographs/examination.

Discussion

Melasma is a chronic pigmentary disorder with a multifactorial pathogenesis. UV and visible light exposure, genetic susceptibility, hormonal factors and changes in the skin microenvironment all contribute to disease development. [3] [4]

In the present illustrative case, the diagnosis was based on the characteristic bilateral facial pigmentation and clinical examination. Differential diagnoses such as post-inflammatory hyperpigmentation, solar lentigo, drug-induced pigmentation and other causes of facial melanosis should be considered. [2] The homeopathic approach in this case was based on individualisation and totality of symptoms. Natrum muriaticum was selected after comparison with other candidate remedies.

The important point for an academic presentation is that the remedy was **not selected merely because “Natrum mur is a remedy for pigmentation.”**

The prescription was based on the combination of characteristic mental, general and particular symptoms.

Improvement should preferably be demonstrated objectively using:

- Standardised photographs
- mMASI/MASI
- Clinical examination
- Patient-reported assessment

Limitations

This is a single case report. Improvement in pigmentation in an individual patient cannot establish that homeopathy caused the improvement. Melasma naturally fluctuates, and sun avoidance, skincare, placebo/contextual effects and other interventions can influence outcomes. Therefore, larger controlled studies are necessary before drawing conclusions about treatment efficacy.

Conclusion

Melasma is a chronic, multifactorial disorder of facial hyperpigmentation that requires accurate clinical diagnosis and long-term management.

In this illustrative case, the homeopathic prescription was selected according to the individualised totality of symptoms, with Natrum muriaticum emerging as the final remedy after differential remedy analysis and repertorial evaluation.

The case demonstrates the importance of:

Detailed case taking → Analysis of symptoms → Totality → Repertorization → Remedy differentiation → Individualised prescription → Objective follow-up.

However, because this is a single case, the observed clinical improvement should be regarded as a case observation rather than proof of homeopathic efficacy.

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