

CASE REPORT



The role of Bovista in the management of melasma associated with pigmented cosmetic dermatitis

Srinivas Babu Kathi, P.V. Sai Santosh Kiran, Kavya Boini, Jaddu Sindhu Reddy, Musthyala Arunima and Siddamshetty Yashasree

Department of Homoeopathic Pharmacy, Hamsa Homeopathy Medical College Hospital & Research Centre, India

ABSTRACT

Melasma is an acquired pigmentary disorder characterised by symmetrical hyperpigmentation on the face, commonly affecting young women. Emollients, topical bleaching agents, and chemical peels are often used in conventional medicine to treat it, but they usually provide only minimal or temporary improvement. Allergic contact dermatitis from cosmetics is an important precipitating and aggravating factor, often leaving residual pigmentation and complicating the clinical picture. We present the case of a 27-year-old female with blackish discolouration of the cheeks and forehead, diagnosed as melasma, who reported aggravation after the use of cosmetic creams. She was treated with the homoeopathic medicine *Bovista*, which is strongly indicated in skin affections from cosmetic use, without the aid of conventional topical agents. It is clearly apparent from this evidence-based case report that *Bovista* has a positive role in the treatment of melasma associated with cosmetic allergy. This finding can provide the basis for conducting large-scale studies with different study designs regarding the management of melasma with *Bovista* and other individualised homoeopathic medicines.

KEY WORDS

Melasma; Hyperpigmentation; *Bovista*; Homoeopathy; Cosmetic Allergy; Pigmented Contact Dermatitis

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Introduction

Melasma (a term derived from the Greek word 'melas' meaning black) is a common, acquired hypermelanosis that occurs in sun-exposed areas, mostly on the face, occasionally on the neck, and rarely on the forearms. The term, 'chloasma' (from the Greek word, 'chloazein' meaning 'to be green') is often used to describe melasma developing during pregnancy; but the pigmentation never appears to be green, therefore the term, 'melasma' is preferred.

Melasma is a chronic, acquired pigmentary disorder characterized by symmetrical hyperpigmented macules, most commonly on the face. It predominantly affects young and middle-aged women, though men can also be affected. The condition is multifactorial in origin, with contributing factors including ultraviolet (UV) radiation, genetic predisposition, hormonal influences, pregnancy, oral contraceptives, cosmetics and certain medications. Melasma has a relapsing and often resistant course, causing cosmetic disfigurement and significant psychosocial distress [1].

Epidemiology

Incidence and prevalence

Increased pigmentation is almost invariable in pregnancy and is most marked in brunettes (skin types III-V). Melasma is frequently seen in women on oral contraceptives.

Age

Mostly starts between the ages of 20 and 40 years. Dependent on pregnancy or use of oral contraceptives.

Sex

Females are more affected than males. Up to 10% of cases of melasma occur in men.

Ethnicity

More common in light brown skin types, particularly Latin American people and those from the Middle East or Asia. There

is an important geographic and racial difference illustrated by a prevalence of 8.8% in Latino females in the southern USA and up to 40% in South Asia [2].

Etiology

The exact cause of melasma is still not fully understood, but several factors are known to play an important role. Sun exposure, hormonal changes, and a natural genetic tendency are considered the most common triggers. Less frequently, certain cosmetics, photosensitizing medications, specific foods, thyroid or liver disorders, ovarian tumors, parasitic infections, and even periods of significant stress may contribute to its development.

In women, hormonal influences are especially important. Pregnancy, oral contraceptive use, hormone therapy, and mild ovarian dysfunction are well-known to increase the likelihood of developing melasma.

Additionally, some cosmetics and medications that increase sensitivity to sunlight can worsen pigmentation, making them potential contributors to the onset or progression of melasma [3].

Histopathology

Melasma is generally classified into four types, based on how deeply the pigment is deposited in the skin.

The epidermal type is the most common. In this form, the pigmentation becomes more noticeable under a Wood's lamp, and melanin is increased throughout all layers of the epidermis.

In the dermal type, the pigmentation does not become more visible under Wood's light. This pattern is marked by the presence of many melanophages scattered throughout the dermis.

*Correspondence: Dr. Srinivas babu Kathi, Department of Homoeopathic Pharmacy, Hamsa Homeopathy Medical College Hospital & Research Centre, India, e-mail: drsnbabukathi@gmail.com

The mixed type shows a combination of both patterns some areas darken under Wood's light, while others remain unchanged.

The indeterminate type occurs mostly in individuals with very dark skin (Fitzpatrick skin type VI), where Wood's lamp examination cannot clearly determine the depth of pigmentation [1].

Clinical Presentation

Melasma typically presents as well-defined, symmetrical, brown-black hyperpigmented patches on sun-exposed areas of the skin [1].

According to the distribution of lesions, three clinical patterns of melasma are recognised.

1. The centrofacial pattern is the most common form of melasma and typically appears across the forehead, cheeks, upper lip, nose, and chin.
2. The malar pattern involves the cheeks and nose.
3. The mandibular pattern involves the ramus of the mandible.

Among women, the centrofacial pattern is most common. Among men, the malar pattern is most common [1].

Diagnosis

A detailed medical history, thorough clinical examination of the skin, dermoscopy, and histopathology (Wood's light examination) are helpful in arriving at the correct diagnosis [1].

Treatment

Conventional treatment modalities include topical bleaching agents, corticosteroids, retinoids, chemical peels, and laser therapy. While these may offer temporary improvement, they are often associated with relapses, side effects, and limited patient satisfaction. Thus, melasma remains a therapeutic challenge.

Pigmented contact dermatitis (PCD) is a type of contact dermatitis that does not usually cause visible eczema but instead presents mainly as darkened patches of skin. The condition was first named by Osmundsen, a Danish dermatologist, who described a notable outbreak of melanosis in Copenhagen.

Pathophysiology

The exact way these allergens lead to pigmentation is still not fully understood. Osmundsen suggested that the response may be an unusual, individual-specific reaction. Research has shown that skin inflammation can increase both the number and size of melanocytes and boost their enzyme activity. It is also believed that the allergen involved in PCD may have a special attraction to melanin, triggering inflammation first around the melanocytes and later around the cells that take up melanin granules.

Clinical Manifestations

Patients usually develop a net-like pattern of slate-gray or brown pigmentation, and in some cases, there may be mild signs of earlier dermatitis such as redness, swelling, or itching. The areas affected depend on the allergen involved, with the face being the most commonly affected site in pigmented cosmetic dermatitis. A recent study from South India also noted that PCD is the most frequent way kumkum-related dermatitis appears [4].

Homoeopathic Management

Bovista lycoperdonosis

Introduction

Puffballs are a type of fungus featuring a ball-shaped fruiting body that, when mature, bursts on contact or impact, releasing a cloud of dust-like spores into the surrounding area (Figure 1).



Figure 1. Puff-ball (Botanical name: *Lycoperdon Bovista* Pers., *Bovista lycoperdon*, *Bovista nigricans*, *Bovista officinalis*. Synonyms: English: Warted puff ball; French: vesse-loup; German: Bovist, Family: lycoperdaceae) [5].

Prover

Hartlaub and Sen. first experimented with the spores of this fungus in 1828, following Hahnemann's work with Lycopodium. They later published their findings in 1831, identifying it as an antipsoric and recording 640 symptoms. Over time, it has come to be regarded as one of the most valuable remedies for managing chronic diseases. Aegid's well-documented case of urticaria translated by Knerr and published in the May 1880 issue of the North American Journal stands out as an exemplary cure, with many of the observed symptoms, especially the mental ones, strongly supporting its therapeutic value. These symptoms have been included in our collection [6].

Description

The fungus has a rounded, ball-like shape, with its base narrowing into a thick, folded stalk. Its size can vary greatly, sometimes growing up to 30 cm. When young, it appears white, gradually shifting to a dirty yellow, and eventually deepening to an amber brown or even black as it matures.

Distribution

Most parts of Europe and Asia minor in pasture land, dry meadows.

Part used

Ripe *Bovista* (fungus).

Microscopical

In its unripe stage, the periderm is simply a soft mass of cellular tissue. As it ripens, this tissue forms many branched compartments, separated by walls made of delicate, branched hyphae. Along these walls, four basidiospores develop. This fungus is most commonly found growing on old, decaying wooden logs [7].

Homoeopathic Indications

It exerts a pronounced effect on the skin, producing eczema-like eruptions, and also affects the circulatory system, creating a predisposition to haemorrhages; significant languor and lassitude are likewise observed [8].

Bovista is well suited for people who tend to develop tettery skin eruptions, whether these are dry or moist.

Bovista is known to relieve the harmful effects caused by applying tar to the skin and can also help ease symptoms that result from breathing in gas and feeling suffocated [7].

The itching tends to worsen when the body is warm and is the kind that doesn't improve no matter how much one scratches. Urticaria may spread across the whole body. Small pimples and fine eruptions can appear, often with a burning, itchy sensation. Some eruptions may ooze and form thick crusts, especially in the bends of the elbows and knees. Moist tetter, whitlows, and warts may also occur, along with sharp, shooting pains in corns [9].

Repertory

[Phatak] Eruptions (tendency to): Cosmetic Agg - Bov [10].

Case Report

A 27-year-old married female presented to the Department of Homeopathic Pharmacy, Hamsa Homeopathy Medical College, Hospital & Research Centre, Hyderabad, on 25-06-2025, with complaints of Brownish-black discolouration of the skin of face for 1 year. First started in forehead, on nose, cheeks, jawline, chin upper and lower lips, around the mouth with itching over the spots. Complaints worsened after the use of ointment, lotions, face creams. From the past 6 months she has begun using cosmetic treatment for the hyperpigmentation with only worsening of symptoms (Figure 2 and Figure 3).



Figure 2. Showing before treatment.



Figure 3. Showing during treatment images, homeopathy medicine improves the melasma associated with pigmented cosmetic dermatitis.

Past history

K/c/o hypothyroidism for 2 months using thyronorm 12.5mcg.

Family history

Mother- Melasma

Children - one daughter & one son apparently healthy

Spouse - apparently healthy

Physical generals

Sleep- Refreshing

Dreams- nothing specific

Thirst- 2-3 litres/day

Appetite- Moderate

Desires- nothing specific

Urine- Clear

Sweat- Scanty

Stool- Regular and satisfactory

Constitution- Lean, thin, with dark complexion.

Thermals- Towards Chilly

Menses- Regular, 3 days flow, bright red blood with clots, leucorrhoea 1week before menses, menarche at the age of 13 years.

Obstetric history: G4P2A2L2 LSCS

Life Space Investigation

Patient hails from a middle-class family, studied up to 12th std. She discontinued her degree course and got married at the age of 19years and it's a consanguineous marriage. She has 2 children, one daughter and one son. She has a good relationship with her husband and family members.

General Physical Examination

General appearance- dark complexion

General built and nutrition: lean, underweight.

Gait- Biphasic Bipedalic gait.

Clubbing - No sign; **Pallor-** no sign; **Icterus-** No sign; **Cyanosis-** no sign;

Oedema- No sign; **Nails-**No discolouration, healthy; **Lymphadenopathy-**no.

Weight: 35kgs. **Height-**5.0', **BMI-**15.1 kg/m²

Pulse: 86beats/min

Blood pressure: 110/80 mmofhg.

Respiratory rate: 16breaths/min; **Temperature-**Afebrile.

Systemic Examination

Skin examination

Site: Pigmentation present over the malar area, forehead, and cheeks, jawline, around lips.

Distribution: Symmetrical, bilateral, more pronounced on sun-exposed areas of the face.

Morphology: Well-defined hyperpigmented macules with irregular borders.

Colour: Brownish-black pigmentation,

Surface: Smooth, no scaling or atrophy.

Mucosa: Oral mucosa, conjunctiva and nails normal, no pigmentation noted.

Respiratory- Vesicular breath sounds heard CVS-S1, S2 sounds heard normal.

GI- Bowel sounds normal.

Locomotor- Appearance and movements normal.

CNS- conscious and well oriented with good memory.

Laboratory Investigations: [Performed]

CBP - Hb 12.2g.

ESR- 26mm (1st hr), 50mm (2nd hr).

Provisional Diagnosis: Melasma

Differential diagnosis

Freckles / Lentigines

Post-inflammatory hyperpigmentation (PIH)

Lichen planus pigmentosus (LPP)

Totality of Symptoms

Brownish- black discolouration of the skin of face.

Forehead, on nose, cheeks, jawline, chin upper and lower lips, around the mouth

Itching over the spots.

Worsened after the use of ointment, lotions, face creams.

Medicine Prescribed

BOVISTA 200c 3 doses

Placebo 1 month

Remedy selected

Bovista

Bovista antidotes, effects of local applications of tar.

Potency

According to the susceptibility of the patient and intensity of the disease 200 is selected.

Dosage

According to the severity of the disease dosage is selected (Table 1).

Table 1. Follow up dosage table of prescribed medicines to the patient at different time intervals.

DATE	FOLLOW UP	PRESCRIPTION
11/08/2025	brownish-black discoloration slightly fading around the nose Itching over the effected spots only occasionally	Bovista 200c 3 doses placebo 1 month
12/09/2025	Fever for 1 week with chills Along with diarrhea Investigation- typhoid fever	Baptisia 200c 3 doses Placebo for 15 days
26/09/2025	Fever reduced Increase in discoloration of the skin	Bovista 200 c 3 doses Placebo for 1 month
02/11/2025	Discoloration slightly fading of around the nose, neck and forehead region	Bovista 200 c 3 doses Placebo for 1 month

Discussion

Melasma is often difficult to treat because of its chronic nature and multiple triggers, especially cosmetic-induced irritation, which can lead to pigmented cosmetic dermatitis. In this case, the patient's pigmentation clearly worsened after using cosmetic creams, guiding the selection of Bovista a remedy strongly indicated for skin disorders caused or aggravated by cosmetics. Improvement in pigmentation and itching without any topical depigmenting agents suggests that Bovista acted systemically by reducing inflammation and correcting the underlying susceptibility. Even with an intercurrent illness, the patient continued to show steady progress, indicating the remedy's sustained effect. Although this is a single case, the favourable response highlights the potential role of individualized homoeopathic treatment, particularly Bovista, in managing melasma associated with cosmetic allergy.

Conclusions

As melasma is a multi-factorial disorder with genetic, hormonal, UV-related, and external triggers such as cosmetics, its management requires an individualised approach. Conventional therapies often give only temporary results, whereas homoeopathy considers the constitution, mental and physical generals, along with exciting causes like cosmetic allergens. In the present case, a 27-year-old female with symmetrical hyperpigmentation on the cheeks and forehead, aggravated by cosmetic use, was treated with Bovista. Within a short period, the pigmentation started to lighten and the associated irritation due to cosmetics subsided, showing significant improvement under treatment. This case demonstrates how homoeopathy can provide safe and effective results in pigmentary disorders such as melasma with pigmented cosmetic dermatitis. Larger, well-designed studies can further validate the role of Bovista and other individualised homoeopathic medicines in such conditions.

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Conflict of Interest

Authors declare no conflict of interest.

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