

"Unveiling Chloasma: Ayurvedic Insights into Causes and treatment": A Review

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Abstract:

Chloasma, a chronic skin condition characterized by hyperpigmentation, holds significant cosmetic value due to its impact on beauty and self-perception. While not life-threatening, the condition can cause distress, leading to feelings of inferiority, anxiety, and social isolation. Conventional treatments often come with undesirable side effects, necessitating exploration of alternative approaches. This study aims to investigate Chloasma from an Ayurvedic standpoint and its correlation to *Vyanga*, classified under *Kshudraroga* (minor disorders).

The study involves literature review, previous clinical studies to establish the connection between Chloasma and *Vyanga* in *Ayurveda*. Emphasis is placed on understanding the underlying *dosha* imbalances and pathophysiology contributing to the manifestation of Chloasma. By elucidating the Ayurvedic perspective on this condition, the study seeks to highlight the importance of addressing not only the physical symptoms but also the emotional and psychological impact on individuals.

Moreover, this research endeavors to identify potent Ayurvedic remedies that can effectively treat Chloasma, ensuring a holistic approach to management. The therapeutic potential of Ayurvedic herbs, formulations will be explored.

The results of this study hold promise in providing a deeper understanding of Chloasma as a *Vyanga* disorder in *Ayurveda* and can pave the way for the development of individualized, natural, and safe treatment protocols. By addressing both the physical manifestations and emotional impact of Chloasma, this research aims to offer renewed hope and confidence to individuals suffering from this distressing skin condition. Furthermore, the insights gained from this investigation may encourage a more integrated and personalized approach to dermatological care, promoting overall skin health and emotional well-being.

Keywords:

Chloasma, Hyperpigmentation, *Vyanga*, *Kshudraroga*, imbalance *dosha*.

1. Introduction:

1.1 Definition of Chloasma

Chloasma is a pigmentary disorder that is acquired and characterized by distinct, well-defined, medium to dark brown macules. These macules are symmetrically distributed and tend to appear on sun-exposed areas of the skin, notably on the forehead, cheeks, temples, and upper lip [1].

1.2 Prevalence and significance of Chloasma in society

Chloasma is more commonly observed in individuals with darker skin types, including Indians, Asians and people from the Middle East. It can affect people of all genders and ages, but it is more frequently seen in females, particularly during their reproductive years. The female to male ratio of approximately 9:1 indicates a higher prevalence in women [2].

1.3 Importance of Ayurvedic approach to understanding and treating Chloasma

The skin, being the body's largest organ, serves as a natural protective barrier, shielding us from the outside world and contributing to our overall health. Not only does it provide physical protection, but it also plays essential roles in biochemical processes and immune defense. Additionally, the skin's condition can reflect internal changes and react to external factors, making it significant in psychosocial aspects. Since the skin is visible to others, even small imperfections or lesions can impact a person's self-esteem, especially when it comes to facial blemishes or scars, which affect social interactions and personal identity.

In today's society, where beauty and personality are highly valued, facial appearance holds great importance, as it is a competitive era. Chloasma (Melasma) is one of the facial disorders that can significantly affect one's beauty and overall appearance. Additionally, the treatment approaches for Chloasma available in allied sciences can lead to undesirable reactions due to the application of topical medications, resulting in various side effects such as contact dermatitis, irritation, and even leucoderma [3]. Therefore, understanding Chloasma from an Ayurvedic perspective can prove beneficial in preventing and effectively treating the condition, helping individuals maintain their desired appearance and self-confidence.

2. Ayurveda and Skin Health

2.1 Overview of Ayurveda as a traditional Indian medical system

Ayurveda is an ancient traditional Indian medical system that has been practiced for thousands of years. The origins of *Ayurveda* can be traced back to the *Vedas*, the revered ancient scriptures of India. Within these texts, *Ayurveda* is described as a comprehensive and holistic system for promoting health and well-being. *Ayurveda* means knowledge of life.

The fundamental principle of *Ayurveda* is to maintain the balance of three vital energies or *doshas*: *Vata*, *Pitta*, and *Kapha*. These *doshas* govern the physiological and psychological functions of the human body. When these *doshas* are in balance, it results in good health, and when they are imbalanced, it leads to illness.

2.2 Ayurvedic principles related to skin health and its balance

Ayurveda places significant emphasis on maintaining skin health and balance as the skin is considered a reflection of overall health and well-being. According to Ayurvedic principles, skin health is closely connected to the *doshas* (*Vata*, *Pitta*, and *Kapha*), and imbalances in these *doshas* can manifest as various skin conditions. *Ayurveda* views skin health holistically, considering both internal and external factors. By understanding one's *dosha* and practicing a balanced lifestyle, individuals can promote skin health and achieve a natural glow that reflects overall well-being.

2.3 Role of *doshas* (*Vata*, *Pitta*, *Kapha*) in skin disorders

Many skin disorders can have multifactorial causes ultimately leading to imbalances in *dosha*. *Ayurveda* aims to address the root cause of the imbalances rather than merely treating the symptoms. Therefore, the treatment for skin disorders in *Ayurveda* involves rebalancing the *doshas* through various means, such as dietary changes, herbal remedies, lifestyle changes, detoxification procedures (*Panchakarma*), and stress management techniques.

3. Understanding Chloasma as per *Ayurveda*

3.1 Aetiology, pathogenesis and treatment of Chloasma in allied sciences.

Aetiology of chloasma is exposure to sunlight, hormonal imbalance mainly due to consumption of oral contraceptives [4], endocrine disorders, genetic [5] or due to toxic ingredients in cosmetics, malnutrition etc.

Due to these specific causes, the production of melanocyte stimulating hormone (MSH) is heightened, leading to an increase in both the number and activity of melanocytes. As a result, there is a corresponding rise in the formation, size, and melanin content of melanosomes. These melanosomes are then transferred to either the epidermis or dermis. Inside the keratinocytes, the melanosomes are individually packed leading to Chloasma [6].

Modern line of treatment involves sunscreens to avoid the effect of sunlight, depigmenting agents, chemical peels [7], laser treatment [8], plastic planning [9] etc.

3.2 Chloasma as per *Ayurveda*

Chloasma is classified as a skin disorder, and in *Ayurveda*, skin diseases are primarily categorized under *Kustha* (various skin diseases) and *Kshudraroga* (minor disorders). Upon examining the signs and symptoms of chloasma, it can be correlated to the Ayurvedic disorder called *Vyanga*, which falls under the category of *Kshudraroga* (minor disorders) [10].

3.2.1 Causes for *Vyanga*

Krodha (anger), *aayasa* (excessive exertion), *shoka* (grief), *harsha* (excess pleasure), *chardivegadharana* (suppression of vomiting) etc are the causes for *Vyanga*.

- a) *Krodha* (anger)- Vitiates *Pitta dosha* and *rakta* (blood) leading to *Vyanga*.
- b) *Aayasa* (excessive exertion)- All activities which causes exhaustion to the body like heavy exercise, walking for long distances, fighting etc can be included under the heading *Aayasa*. If a person indulges in exertion there will be *Vata* and *pitta prakopa* there by leading to *Vyanga*.
- c) *Shoka* (grief)-Grief causes *shoshana* (dryness) of the body leading to vitiation of *vata* and *pitta dosha*.
- d) *Harsha* (excess pleasure)- It is exhilaration or feeling pleasure without any apparent cause or by finding fault with others [11]. It causes excess *Vata prakopa*.
- e) *Chardivegadharana* (suppression of vomiting) - Any *vega dharana* causes *vataprakopa* , hence *chardivega dharana* also causes *vataprakopa* leading to *Vyanga*. Also it is one of the causes for vitiation of *Rakta*.

3.2.2 Pathophysiology of *Vyanga*

Because of these aetiological factors, *Vata* and *Pitta* gets aggravated taking *ashraya* (location) in *Rasa* (primary product of digested food) and *Rakta* (blood) enters *mukhapradesha* (face) leading to *Vyanga*. This signifies that *Vyanga* is psychosomatic disease.

3.2.3 Clinical features of *Vyanga*

Cardinal features of *Vyanga* are *niruja* (painless), *tanu* (non elevated/mildly elevated), *shyavamandala* (blackish/brownish macules) on the face [12].

4. Ayurvedic Treatment Approaches for Chloasma

4.1 Holistic approach to treating Chloasma in *Ayurveda*

A holistic approach to treating Chloasma (Melasma) in *Ayurveda* involves addressing the root cause of the condition, rebalancing the *doshas*, and promoting overall well-being. Ayurvedic treatments aim to not only alleviate the symptoms but also prevent the recurrence of the skin disorder.

4.2 Ayurvedic herbs and formulations for Chloasma treatment

Various methods of drug administration are mentioned for *Vyanga*, and certain special medicinal preparations are mentioned to not only cure *Vyanga* but also enhance facial beauty, radiance, and complexion. The first-line treatment involves *Nidana Parivarjana* (avoiding the causative factors), which not only halts the disease's progression but also serves as a preventive measure.

4.2.1 Shodhana therapy (detoxification)

Among the *Shodhana* therapies, *Raktamokshana* (blood letting) is utilized. It eliminates *tvak dosha* (skin defects) and *shonitadushti* (vitiated blood). In the disease *Vyanga*, the main *dushya* (the one which is vitiated) is *rakta* (blood), hence *Raktamokshana* (blood letting) is helpful. *Raktamokshana* for *Vyanga* is done by *siravyadha* (venepuncture).

Also as the aetiological factors, symptoms are mild, the oral medications and external applications are adequate to cure the disease but if the patient does not respond to this line of treatment one should adopt *Virechanachikitsa* (purgation therapy) as it is best to combat diseases arising due to vitiation of blood.

4.2.2 Shamana therapy (pacification)

Shamana therapy includes *Antah parimarjana Shamana* (internal pacifying treatments) like *Nasya* (errhine therapy) and *Bahirparimarjana Shamana* (external pacifying therapies) like *Lepa* (anointment), *Abhyanga* (oil application), *Udvardana* (therapeutic powder massage), and *Prakshalana* (cleansing).

Nasya (Errhine therapy):-

When the diseases are located above neck region *Nasya* is the best procedure to combat those diseases. *Shamana* (pacifying) type of *Nasya* is indicated in *Vyanga* [13]. *Maarkavasvarasa* (fresh juice of *Ecliptaprostrata*) alone or with milk or with water is used for *nasya* [14].

Bahirparimarjana Shamana (external pacifying therapies):

As the disease has locally spread over the skin of the face the local or external applications have immediate impact upon the clinical manifestations of *Vyanga*. Many such drug formulations are prescribed for the topical use in form of powders, pastes, oils, etc.

a) Udvardana (therapeutic powder massage):

Udvardana is said to bemitigate *Kapha* (doṣa responsible for regulating body fluids and keeping the body constituents cohesive), *tvakprasadakara* (increases skin luster). Rubbing of the affected part is done using *samudraphena* (cuttle fish bone), *vijayapatra* (leaves of *Cannabis sativa*) and *shimshapa* (Indian rosewood) [15].

b) Abhyanga (oil application):

Different oil and ghee preparations are mentioned for oil application like *Haridradyataila*, *Kanaka taila*, *Manjisthadyataila*, *Kunkumadyataila* etc [16]. Several of these preparations are commercially available in the market.

c) Lepa (Anointment):

Several medicinal formulations are indicated for use as topical applications or anointments like application of *Arjuna tvak* (bark of *Terminalia arjuna*) or *manjishta* (*Rubia cordifolia*) with honey,

combination of *Raktachandana* (*Pterocarpus santalinus*), *manjishtha* (*Rubia cordifolia*), *kushta* (*Saussurealappa*), *lodhra* (*Symplocosracemosa*), *priyangu* (*Callicarpa macrophylla*), *vatankura* (*Ficus benghalensis*), *masura* (*Lens culinaris*), paste of *Jatiphala* (*Myristica fragrans*) etc.

d) Prakshalana (Cleansing):

Medicaments which are mentioned for cleansing are decoctions of *bilwa* (*Aegle marmelos*), *Amalaki* (*Emblilca officinalis*) etc [17].

5. Research and Evidence

5.1 Overview of scientific studies on Ayurvedic treatments for Chloasma

a) A comparative single-blind clinical study was conducted on patients suffering from *Vyanga*. The selected patients were divided into three groups randomly. The first group received three courses of *nasyakarma* with *yastimadhutaila*, with a one-week interval between each course. The second group was treated with *Mahamanjistadikwatha*, an oral dosage of 30 ml twice daily, along with topical application of *Lodhradilepa* for two months. As for the third group, they received all three treatments: *nasyakarma*, oral medication, and *lepa*. The study observed that *Vyanga* remission occurred in patients belonging to the third group. Based on the findings, it was concluded that the combination of *nasyakarma*, oral medication, and *lepa* proved to be the most effective among the three treatment regimens [18].

b) A comparative single-blind clinical study was conducted on patients suffering from *Vyanga*. The selected patients were randomly divided into three groups. In the first group, the patients received treatment with *Kimshukadi* cream massage. The second group received the same massage along with a *lepa* of *Ingudiphalamajja*. The patients in the third group were given *manjishtachurna* orally in a dose of 3 gms/day, divided into three doses, in addition to the cream massage and *lepa*. Each group followed the respective treatment regimen for a total duration of 45 days. The study findings showed that the combination of all three procedures was comparatively more effective in treating *Vyanga* [19].

Conclusion:

In Ayurveda, Chloasma is referred to as *Vyanga*. It is considered a disorder arising from the vitiation of *Vata*, *Pitta*, and blood. Balancing *doshas* through lifestyle modifications and dietary adjustments is essential. *Vyanga* is influenced by various causative factors linked to the mind, underscoring the significance of maintaining mental equilibrium. *Antah parimarjana Shamana* (internal pacifying treatments) like *Nasya* (errhine therapy) and *Bahirparimarjana Shamana* (external pacifying therapies) like *Lepa* (anointment), *Abhyanga* (oil application), *Udvartana* (therapeutic powder massage), and *Prakshalana* (cleansing) have significant impact in reducing chloasma.

By incorporating the treatment principles outlined in *Ayurveda*, it becomes possible not only to alleviate the condition but also to enhance the skin's radiance and overall appearance, serving as a preventive measure against future occurrences.

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