

A CRITICAL REVIEW ON CHARAKOKTA VARNYA MAHAKASHAYA: AN AYURVEDIC AND SCIENTIFIC APPRAISAL OF COMPLEXION-ENHANCING DRUGS

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Article Received on 03 March 2026,
Article Revised on 23 March 2026,
Article Published on 01 April 2026,

<https://doi.org/10.5281/zenodo.19327286>

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How to cite this Article: Dr Gajanan Shankarrao Patil, *Dr. Harichandra Suryawanshi, (2026). A Critical Review on Charakokta Varnya Mahakashaya: An Ayurvedic and Scientific Appraisal of Complexion-Enhancing Drugs. World Journal of Pharmaceutical Research, 15(7), 463-475.

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ABSTRACT

Beauty is a subject of socio – medical importance. Deplorable skin conditions impact mental health which may further lead to stress, low personal drive, lack of motivation, fear of communicability of transmitting it to others. So, the cosmetics are used in wide range through out the world which lead to many hazardous effects due to their chemical content. *Varna* (skin complexion) is considered to be an important aspect of health in Ayurveda. It includes different parameters such as skin hydration, skin pigmentation, skin sensitivity, skin wrinkling, etc.,. The disturbance in any of these components is considered as *Vaivarnya* or skin discoloration. Acharya Charaka has given a remedy for the task of restoring and retaining the natural hue, texture and tone of the skin called *Varnya mahakashaya*. It contains 10 herbs which can be used both internally and

externally. The pharmacological properties of these herbs show a complexion promoting effect and has the potential to preserve and restore the lost beauty without side effects. So, the present article focusses on to study *Varnya mahakashaya* thoroughly so that it can be applied clinically.

KEYWORDS – *Varnya mahakashaya*, *Varna*, skin complexion, Acharya Charaka.

INTRODUCTION

Beauty is the thing which everyone desires. In present competitive era everyone wants to be at

the topmost position for which distinct personality plays a key role of ladder. A person with beautiful face and distinct personality is favoured more or less by the society. It cannot be totally denied that fairer complexion plays a significant role in enhancing beauty and personality of a person. When it comes to fairness products, there are lot of expensive products available in the market. These products usually contain harmful chemicals. Most of them seems to prove less beneficial rather few of them shows cytotoxic effect on prolonged use. If you are going to use them, you can get short term results, harming the skin in long run.^[1] *Varna* has been given special emphasis in Charak samhita as it is a marker of equilibrium of *dosha*^[2] and *dhatu*.^[3] It is also considered as one of the entities which should be examined by physician desiring to assess the residual life span of patient by direct observation.^[4] It includes different parameters such as skin hydration, skin pigmentation, skin sensitivity, skin wrinkling, etc, The disturbance in any of these components is considered as *Vaivarnya* or skin discoloration.^[5] Acharya Charaka has included change in skin colour under 8 undesirable appearances^[6] and has mentioned it as a symptom in dermatological as well as many systemic diseases.^[7]

People with abnormal and deformed appearances in skin undergo a lot of stress in terms of low personal drive, lack of motivation, avoidance due to fear of disease spread^[8] and results in further deterioration of overall health and vice versa.^[9] Acharya Charaka has given a remedy for the task of restoring and retaining the natural hue, texture and tone of the skin called *Varnya mahakashaya*.^[5] It contains 10 herbs^[10] which can be used both internally and externally.^[11] The pharmacological properties of these herbs have complexion promotion action^[12] as well as *Vyadhihara* (curative effect in various skin diseases) and *Rasayana* (rejuvenating effect).^[8] So, the present article focusses on to study *Varnya mahakashaya* thoroughly so that it can be applied clinically for better skin health.

MATERIAL AND METHODS

Charak samhita along with Chakrapani commentary, Bhavprakash Nighantu, various textbooks of Dravyaguna along with research articles from reputed journals and websites were studied for this topic. The data was collected, studied, discussed and concluded.

Observation and Result

Mahakashaya

- Definition – *Maha* means great, large, powerful, mighty^[13] and *Kashaya* means *Kwatha Kalpana* (decoction), but according to Acharya Chakrapani, not only *Kwatha Kalpana* but

Swarasa, Kalka, Shruta, Sheeta and *Phanta* all 5 *Kashay kalpanas* can be formulated from herbs mentioned in *Charakokta mahakashaya*.^[14]

- **Characteristics of *Mahakashaya***

1. It contains fix number of *Dravyas* in each *Mahakashay* which is 10.^[15]
2. Acharya Charaka has mentioned 50 *Mahakashayas* only, to avoid lengthiness of Classical text, one can add other *Mahakashay* by applying *Yukti Praman*.^[16]
3. There should be 500 *Dravyas* in total, but actual *Dravyas* in total 50 *Mahakashayas* is 272, as one *Dravya* is repeated in other *Mahakashayas*, because of performing many actions.^[17]
4. Charak acharya has mentioned *Mahakashay* group of 10 medicinal plants having similar pharmacological & pharmacotherapeutic actions.^[15]
5. These *Dravyas* mentioned in *Mahakashayas* are specially designed as single drug use or may be used in combination of 2 or more or 10 *Dravyas* combined to used *Kashay kalpanas*, this depends on *Dashvidh parikshya bhava*- 10 fold diagnostic method.
6. The selection of *Dravya* is based on *Guna-Karma Siddhant*. Selection of 10 *Dravyas* in each *Mahakashaya* is based on *Shrung Grahi Nyaya* (maxim) means to get control over particular thing by holding a part of it to gain it entirely. This maxim has been used in a group of similar objects to denote or indicate a particular one.^[18]
7. In *Mahakashay*, *Churna kalpana* (powder) should be made by *Dravyas* like *Yashtimadhu*, *Swarasa Kalpana* (juice) should be made by *Mandukparni*, *Guduchi*, *Kalka Kalpana* (paste) should be made by *Shankhapushpi*, this general rule for formulation of *Panchvidha Kashay Kalpana* is mentioned in this concept.^[14]
8. The sequence of *Dravya* in *Mahakashaya* has some meaning i.e., more potent and easily available *Dravya* is on first number and so on.^[18]

- **Importance of *Mahakashaya***

Acharya Charaka has clearly mentioned that

1. Draft person can follow these *Mahakashaya* guidelines as it is.
2. For clever and intelligent person it is a path direction.
3. Wise clinicians can include other drugs in it having similar activities or may elaborate the concept of *Mahakashayas* using their own *Yukti praman*.^[19]

- **Varnya mahakashaya**

Varna means colour and the Ya suffix indicates health associated with the concept of body^[20] or suffix Ya meaning *Gati, Yog* i.e., one which is beneficial for complexion or complexion enhancer is *Varnya mahakashaya*.^[18]

- **Contents of Varnya Mahakashaya**

In *Shadvirechan shatashriteeya adhyaya* of Charak samhita, Acharya Charaka has given 10 contents of *Varnya mahakashaya*^[10] which are described in Table no. 1 below –

Table No. 1 - Introduction to herbs of Varnya mahakashaya.

Sr.No	Dravya	Latin name	Family	English name
1.	CHANDAN ^[21]	Santalum album	Santalaceae	Sandal wood
2.	TUNG ^[22] (Naagkeshar)	Mesua ferrea	Guttiferae	Cobras saffron
3.	PADMAKA ^[23]	Prunus cerasoides	Rosaceae	Bird cherry
4.	USHIR ^[24]	Vetiveria zizanoidis	Graminae	Cuscus grass
5.	MADHUKA ^[25]	Glycyrrhiza glabra	Lehuminaceae	Liquorice root
6.	MANJISTHA ^[26]	Rubia cordifolia	Rubiaceae	Indian maddar
7.	SARIVA ^[27]	Hemidesmus indicus	Asclepidaceae	Indian sarasa parilla
8.	PAYASYA ^[28]	Ipomoea digitata	Convolvulaceae	Giant potato
9.	SITA(SWETA DURVA) ^[29]	Cynadon dactylon	Gramineae	Creeping Dhub grass
10.	LATA (SHAYAMA DURVA) ^[30]	Cynadon barberi	Gramineae	Bermuda grass

- Properties and action of herbs of *Varnya mahakashaya* – described below in Table no. 2 –

Table no. 2 - Properties and action of herbs of Varnya mahakashaya.^[31]

Sr No	Dravya	Guna	Rasa	Veerya	Vipaka	Doshagnata
1.	CHANDAN	Laghu, Ruksha	Tikta-Madhur	Sheeta	Katu	Kaphahara, Pittahara
2.	TUNG	Ruksha, Laghu	Kashaya-Tikta	Ushna	Katu	Kaphahara
3.	PADMAKA	Laghu	Kashaya-Tikta	Sheeta	Katu	Vatala
4.	USHIR	Laghu, Snigdha	Madhur-Tikta	Sheeta	Madhur	Kaphapittahara, Vataghna
5.	MADHUKA	Guru, Snigdha	Madhur	Sheet	Madhur	Vatapittajit
6.	MANJISHTHA	Guru	Madhur-Tikta	Ushna	Katu	Kaphapitta shamak
7.	SARIVA	Guru, Snigdha	Madhur	Sheeta	Madhur	Tridoshnashana
8.	PAYASYA	Guru, Snigdha	Madhura	Sheeta	Madhur	Vata Pittahara
9.	SITA	Guru, Snigdha	Tikta Kashay	Sheeta	Madhur	Tridosha shamak
10.	LATA	Guru, Snigdha	Tikta-Kashay-Madhur	Sheeta	Madhur	Kaphapittahara

- Parts used, phytochemical constituents and action of herbs of *Varnya mahakashaya* – described in Table no. 3 below –

Table no. 3 - Parts used, phytochemical constituents and action of herbs of *Varnya mahakashaya*.

Sr No	Dravya	Part used	Phytochemical constituent	Action
1	CHANDAN ^[32]	<i>Kanda, sara</i>	Santanol 90%	Anti-inflammatory, antioxidant, anti-microbial
2	PUNNAG ^[33]	<i>Kandatwak</i>	Mesuaferin A & B, Bayoflovhinals, Mamisin	Anti-inflammatory, antioxidant, anti- microbial,
			Mesuaul, Mesuon	anti – diabetic, wound healing
3	PADMAK ^[34]	<i>Kanda</i>	Beta – sitosterol, stigmaterol, uroslic acid, prunetinoside, neosakuranin	Anti-inflammatory, antioxidant, anti- microbial, cytotoxic
4	USHIRA ^[35]	<i>Mula</i>	Benzoic acid, vetiverol, furfural, Iso – khusimol, Calacorene	Anti-inflammatory, anti – fungal, anti- bacterial, anti-septic, wound healing
5	MADHUKA ^[36]	<i>Mula</i>	Glycrayzin aysolikkiritin, Estrogen, Glucose, Sucrose, Manait	Anti-inflammatory, antioxidant, anti-microbial, anti-ulcerative, anti – depressive
6	MANJISHTHA ^[37]	<i>Mula</i>	Purin, Manjishthin, Zantho pseudo purin	Anti-inflammatory, antioxidant, anti- acterial, anti-ulcerative, radioprotective, wound healing
7	SARIVA ^[38]	<i>Mula</i>	Roots – Methoxysalicylic aldehyde, Seeds – Sisterol, Tetracyclin	Anti-inflammatory, antioxidant, anti-ulcerogenic,
			trytipin, Keton, Saponine	anti-thrombotic, anti – venomic
8	PAYASYA ^[39]	<i>Kanda</i>	Carbohydrate 64.6%, Protein – 10.9%	Anti-inflammatory, antioxidant, anti- ulcerogenic, anti-stress, wound healing, galactagogue
9	SITA ^[40]	<i>Panchanga</i>	Proteins – 10.4%, Fibres – 27.1%, Calcium – 11.7%, Carbohydrate – 36.6%, Magnesium, Phosphorous, Sodium, Potassium, Alkaloids, Glucosides	Anti-inflammatory, antioxidant, anti- microbial, anti – allergic, immunological
10	LATA ^[41]	<i>Panchanga</i>	Proteins – 10.4%, Fibres – 27.1%, Calcium –11.7%, Carbohydrate – 36.6%, Magnesium, Phosphorous, Sodium, Potassium,	Anti-inflammatory, antioxidant, anti- microbial, anti – allergic, immunological
			Alkaloids, Glucosides	

- *Panchabhautik* constitution of herbs of *Varnya mahakashaya* – described in Table no. 4 below –

Table no. 4 - *Panchabhautik* constitution of herbs of *Varnya mahakashaya*.^[42]

Sr. No.	Dravya	<i>Panchabhautik</i> constitution
1.	CHANDAN	<i>Aakash</i> – 3 <i>Vayu</i> – 4 <i>Agni</i> – 3 <i>Prithvi</i> – 2 <i>Jala</i> – 2
2.	TUNG	<i>Aakash</i> – 3 <i>Vayu</i> – 5 <i>Agni</i> – 4 <i>Prithvi</i> – 1 <i>Jala</i> – 0
3.	PADMAK	<i>Aakash</i> – 3 <i>Vayu</i> – 4 <i>Agni</i> – 2 <i>Prithvi</i> – 2 <i>Jala</i> – 1
4.	USHIR	<i>Aakash</i> – 2 <i>Vayu</i> – 2 <i>Agni</i> – 1 <i>Prithvi</i> – 3 <i>Jala</i> – 4
5.	MADHUK	<i>Aakash</i> – 0 <i>Vayu</i> – 0 <i>Agni</i> – 0 <i>Prithvi</i> – 4 <i>Jala</i> – 5
6.	MANJISHTHA	<i>Aakash</i> – 2 <i>Vayu</i> – 2 <i>Agni</i> – 2 <i>Prithvi</i> – 2 <i>Jala</i> – 2
7.	SARIVA	<i>Aakash</i> – 0 <i>Vayu</i> – 0 <i>Agni</i> – 0 <i>Prithvi</i> – 4 <i>Jala</i> – 5
8.	PAYASYA	<i>Aakash</i> – 0 <i>Vayu</i> – 0 <i>Agni</i> – 0 <i>Prithvi</i> – 4 <i>Jala</i> – 5
9.	SITA	<i>Aakash</i> – 2 <i>Vayu</i> – 3 <i>Agni</i> – 1 <i>Prithvi</i> – 4

		<i>Jala – 3</i>
10.	LATA	<i>Aakash – 2</i> <i>Vayu – 3</i> <i>Agni – 1</i> <i>Prithvi – 4</i> <i>Jala – 3</i>
	TOTAL	<i>Aakash – 15</i> <i>Vayu – 20</i> <i>Agni – 13</i> <i>Prithvi – 26</i> <i>Jala – 27</i>

DISCUSSION

- ❖ Mode of action of *Varnya mahakashaya* according to Ayurveda
- *Varnya dravyas* when used externally or internally acts on *Bhrajaka Pitta*. *Bhrajaka pitta* is a key factor related with *Varna* (complexion).
- *Ushna virya* stimulates *Bhrajaka Pitta* and does *Raktavardhana*. And so, helps absorb the medicines applied externally and improves *Varna* (complexion).
- *Madhura rasatmaka dravyas* increase the production of *Rasa, Rakta, Majja, Shukra, Oja* which in turn acts on *Varna*.
- *Madhura rasa, Tikta rasa* and *Sheeta virya* has *Pittaghna* action.
- *Madhura rasa* and *Sheeta Virya* act as *Ojovardhaka* and thus helps enhancing skin complexion.
- *Madhura rasa, Madhura Vipaka, Ushna virya* has *Vataghna* action and hence removes blackishness. Excessive *Vata Dosha* causes blackishness in skin and blood.
- Stickiness and increased fluidity are an indicator of impurities in the blood. *Kashaya* and *Tikta Rasatmaka dravyas* absorb *Kleda* and cools down *Pitta*. It therefore results in purification of blood, i.e., *Rakta Shodhana*. It relieves the blood of excess fluidity and stickiness. And this way leads to *Varna Prasadana*.
- So, we can say that- *Dravyas* in *Varnya Mahakashaya* act as *Varnya, Raktaprasadak, Raktavardhaka, Raktashodhaka, Ojovardhaka, Pittaghna* and *Vataghna*.
- *Varnya Mahakashaya* not only works on blood but also acts as filtering agent of blood in body, i.e., Liver. It works on stomach where the basic elements that helps prepare blood are abundant.
- *Sariva & Durva*- Acts on mind, relieves stress and send good signal to the body to keep it well toned.
- *Yashtimadhu, Shweta chandan & Manjishtha* Stabilises aggravated heat in body and

blood.

- According to Ayurveda, Skin is produced from *Rasa dhatu*.
- Sariva & Manjishtha- Improves digestive power of intestine.
- Along with Durva & Kshirvidari – works on *Shleshak kapha* in stomach to produce fine quality of *Rasa dhatu*, which nourishes the skin.
- So, we can say that- *Dravyas* in *Varnya Mahakashaya* act as *Varnya*, *Raktaprasadak*, *Raktavardhaka*, *Raktashodhaka*, *Ojovardhaka*, *Pittaghna* and *Vataghna*.^[20]

❖ Mechanism of action of herbs of *Varnya mahakashaya*

There are two mode of action of any drug i.e., by external use and by internal use. When we apply herbs of *Varnya mahakashaya* externally then it acts on *Bhrajaka pitta* present in skin, which is responsible for the colour of skin. But when we use the same in and as internal usage, it detoxifies the blood and improve disorders^[42] as shown in flow chart no 1 below -

Flow Chart No. 1 - An Ayurvedic Mechanism of Action of herbs of *Varnya mahakashaya*^[43]





REFLECT IN TWACHA

❖ Contribution of *Panchabhautik* constitution for *Varnya* action

Also, according to *Panchbhautiktwa* value (5-proto-elemental structure analysis) of all *Varnya mahakashaya*, herbs are predominant in *Jala* and *Prithvi mahabhuta*. *Jala mahabhuta* provide *Snidgha* (moisturising effect) to the skin whereas *Prithvi mahabhuta* gives *Sthira* (strengthening effect) to the skin. Moreover, *Vayu mahabhuta* provides *Laghuta* (lightness) to the skin, *Aakash mahabhuta* due to *Vishadata* enables (clear-off degenerated cells) and provides *Mruduta* (softness) to the skin. Lastly, *Agni mahabhuta* provide *Roopa* (fairness) to skin.^[42]

❖ Role of individual drugs of *Varnya mahakashaya*

1. CHANDAN - Rich in sesquiterpenoid alcohols that is used in various skin fairness herbal cosmetics. Alpha santanol and beta santanol are chemical components present in its oil. Alpha santanol has inhibitory action on tyrosinase.^[20]
2. TUNG - Nagkeshar is *madhur, kashaya, alpa ushna, laghu, ruksha* and *kapha pittashamak*. It balances excess oil production of the skin. It decreases dark spots and blemishes. It deeply clarifies and purifies the skin, lightens pigmentation. It is rich in antioxidants which helps the skin from ultraviolet rays.^[44]
3. PADMAK - It contains puidumin B which has ant melanogenesis activity by suppression of tyrosinase protein and it makes suitable for skin fairness.^[45]
4. USHIR - Chemically it contains Alfa amorphene, beta vatirenene, alfa grujunenr and dehydro-aromadendrene. It has antioxidant activity and suppresses the induced melanogenesis thereby decreasing melanin production through tyrosinase inactivation and the simultaneous separation of oxidative stress.^[45]
5. MADHUK - Glycyrrhizic acid controls the secretion of melanin in the skin hence it reduces dark pigmentation and makes fair skin that is why it is used in cosmetic products.^[45]
6. MANJISHTHA - Chemically it contains glucosides along with resins, lime salt and colouring agent. Methanolic extract of Manjishtha has been reported to show inhibition of tyrosinase activity, hence it acts as a skin whitening agent.^[45]
7. PAYASYA - Kshirvidari is *Madhur, Sheeta* and *Vat pitta shamak*. It helps in pacifying

- Pitta*, and it improves the quality of *Kapha*, nourishes the skin.^[46]
8. SARIVA - It is a popular herb in Ayurveda which is used as *Raktaprasadak* in skin diseases. The antioxidant activity of Sariva has been evaluated in vitro and ex vivo models. Methanolic extract of its root has been reported to show 14.80% tyrosinase inhibitory activity.^[45]
 9. SITA - Shwet durva is *Tikta*, *Kashaya rasatmak*, *Sheeta* and *Tridoshshamak*. It purifies blood and also helps in maintain alkalinity of blood; hence it can be used as *Varnya*.^[47]
 10. LATA - Harit durva is *Tikta - Kashaya* and *Madhur*, *Sheeta* and *Kapha pittashamak*. It purifies blood and also helps in maintain alkalinity of blood; hence it can be used as *Varnya*.^[47]

❖ Mode of action of *Varnya mahakashaya* according to modern

The reactive oxygen species (ROS) generated in the body may induce DNA damage in melanocytes and also affect its proliferation.^[48] Thus, the importance of flavonoids and phenolic components of *Varnya mahakashaya* as active radical scavengers in protection of skin against both the intrinsic and extrinsic environment can be understood. The antioxidant potency of *Varnya mahakashaya* may also influence skin pigmentation by interacting with copper at active site to hold up the oxidative polymerization of melanin intermediates.^[49,50,51]

CONCLUSION

Mahakashaya is the unique concept given by Acharya Charaka which has group of 10 herbs designated to perform specific action either by internal or external use. *Varnya mahakashaya* is also such group of 10 herbs which has task of restoring and retaining the natural hue, texture and tone of the skin. *Dravyas* in *Varnya Mahakashaya* act as *Varnya* by *Raktaprasadak*, *Raktavardhaka*, *Raktashodhaka*, *Ojovardhaka*, *Pittaghna* and *Vataghna* virtue. The Antioxidant and anti-inflammatory properties also help for the *Varnya* action. It should be widely used as *Varnya* in healthy individuals, as *Vyadhihara* in various skin conditions and as *Rasayana* also.

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DOI:10.18535/ijahm/v7i6.15 Impact Factor: 4.415 Page 3010 Review Article on Varnya Mahakashaya 1Dr. Rajni Rathore, 2Dr. Ramanand, 3 Prof. Makhan Lal 1 P.G. Deptt. of Dravyaguna, State Ayurvedic College Lucknow 2 Lecturer of P.G. Dept. of Dravyaguna S.A.C. Lucknow. 3 Prof. and HOD of P.G. Dept. Of Dravyaguna S.A.C. Lucknow.
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