

REVIEW ON ACNE COSMETICA WITH MANAGEMENT BY VISHAGHAN  
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## ABSTRACT

Acne cosmetica is an inflammation of pilosebaceous follicle of certain body areas occurs commonly in 80% adolescence. It is a condition which occurs due to the use of certain makeup and cosmetics products, seen on the skin area where the beauty product is applied. Acne cosmetica was described at the first time by Kligman and Mills in 1972. In *Ayurveda* Acne cosmetica comes under *mukhdushika*, Cosmetics and beauty products having various chemical and these are considered as *kritrim visha*. *kritrimavisha* (Artificial poisons) is prepared by the combination of various animate, inanimate poisons. *Acharya Charak* described *Vishghna mahakashaya* and *Acharya Sharangadhara* mentioned *lodhradi lepa* can be a better choice for the treatment of Acne cosmetica or *mukhdushika*, by its antitoxic effect, blood purification and *varnya* (skin complexion) property.

**KEYWORDS:** Acne cosmetica, *mukhdushika*, cosmetics, comedones, *vishaghna mahakashay* etc.

## INTRODUCTION

Acne cosmetica is a chronic inflammatory disease of the pilo-sebaceous follicle that affects about 80% of adolescents. It is evaluated that the prevalence of the disease is almost 1-12 % in the adult males and 12-17% in adult females.<sup>[1]</sup> Acne cosmetica is a human skin disease characterized by skin with scaly red skin (seborrhea), blackheads (comedones), whiteheads (milia), pinheads (papules), large papules (nodules), pimples and scarring.<sup>[2]</sup>

In *Ayurveda*, Acne cosmetica mainly due to *kritrimavisha* (Artificial poisons) or *Garavisha*. *Kritrimavisha* is prepared by the combination of various animate, inanimate poisons, also by the combination of *virudhoushadhi* (incompatible drugs), *bhasma* (ashes), *alpaveerya visha yogas* (less potent toxic drug).<sup>[3]</sup> *Acharya Sushruta* has mentioned *vishajushta mukhalepa lakshanas* (poison containing face creams) in this *syavatha* (blackishness), *pathminikantaka* (pimples) are the main symptoms.<sup>[4]</sup> Cosmetics are made for enhancing the beauty and conceal imperfections. Whose having acne uses cosmetic products to hide a pimply appearance, but some cosmetics may be clog pores further, resulting more and more breakouts. Acne cosmetica is caused by comedogenic (clogs pores) products that penetrate down into pores. As a result, comedones (blackheads) and milia (whiteheads) develop

causing inflammation on cheeks, forehead, nose and chin area. Half of 25 facial beauty creams were found to be mildly comedogenic when tested in rabbits external ear canals, substances which are present in cosmetics were also comedogenic, namely, lanolin, petrolatum, certain vegetable oils, and pure chemicals like lauryl alcohol, butyl stearate and oleic acid. Prolonged use can evoke lowgrade comedonal reactions in susceptible women. Cosmetics as the cause of this disorder which has been named Acne cosmetica.<sup>[5]</sup> Acne is a disease which affects a major part of the population that can leave scar which is affected on self-esteem, psychological and social life. *Vishaghna mahakashaya* and *lodhradi lepa* can be screened for anti-allergic, antitoxic and blood purify properties against dermatological disorders.<sup>[6,7]</sup>

The goal of present article is being to clear the lesions, prevent scarring, limit any treatment-related side-effects and psychological effect. Local application is useful in skin disorders as it directly act on lesion. Internal medicine is also necessary to bring balanced status of affected *Dosha-Dushya avastha*. Hence this attempt is made to find the safe and curative remedy in the form of *vishaghna mahakashay* and *Lodhradi Lepa* for acne cosmetica or *mukhdushika*.

**Risk Factors<sup>[8]</sup>:** Risk factor for Acne cosmetica is the use of certain cosmetics, and beauty products. Cosmetics

that may induce this skin condition may be in the form of:

- Sunscreens
- Topical creams and gels
- Moisturizers and lotions
- Sprays and scents.

**Etiology**<sup>[8]</sup>: Acne cosmetica results when the cosmetics block the hair follicles, which is leading to the formation of acne.

- Several types of cosmetic products may produce the condition; the skin reacting to the chemical in the cosmetics.
- Individuals already having acne may have a higher risk for aggravated condition.

### Clinical Features

Lesions are usually limited to face. Open comedones (blackheads) due to plugging by keratin and sebum of the pilosebaceous orifice, or closed comedones (whiteheads) due to accretions of sebum and keratin deeper in the pilosebaceous ducts, are usually evident. A mild form of acne dominated by the presence of comedones may be due to exogenous substance such as tars, chlorinated hydrocarbons or oily cosmetics.<sup>[9]</sup> Acne is characterized by scattered comedones on the face and only few inflammatory lesions like papules, pustules will be seen. Acne triggers in cosmetics include comedogenic ingredients, essential oils or too greasy or oily foundations, powder make-up, aggressive skin cleansers and soaps with pH of 8.0. Some products which is used for hair like brilliantine, have been reported to cause comedones and cysts on the forehead and temple acne.<sup>[10]</sup> Acne cosmetica may have a slow onset. In some patients, the signs and symptoms is not seen immediate after usage of the makeup or cosmetics. It may appear after some days, weeks, and months for the lesions to develop.

The signs and symptoms of Acne cosmetica may be as follows<sup>[8]</sup>:

- The acne develops on the areas where cosmetics product is applied, include the face and neck (mostly), chest, back, and legs.
- In some patients, the condition is mild and small bumps may see.
- Prolonged use of the comedogenic and oily cosmetic product may cause severe skin lesions.
- Individuals with existing acne may have more severe condition.

### Pathophysiology

<sup>[11]</sup>

The pathogenesis of acne are as- the interplay of hormonal, bacterial, and immunological (inflammatory) factors results in the formation of acne lesions. Acne develops as a result of an interplay of the following 4 factors:

- 1) Follicular hyperkeratosis (closed and open comedones).
- 2) Excess sebum production.

- 3) The presence and activity of the microbial flora *Propionibacterium acnes*.
- 4) Inflammation.

Acne results from several interacting pathogenetic factors. Among these, the pathogenetic factors should not be viewed individually, as they influence each other. Histologically a comedone consists of keratinised cells, sebum and bacteria. The hair follicle containing a comedone is surrounded by lymphocytic and neutrophilic infiltrate in acne.<sup>[12]</sup> Seborrhea, on the one hand, and increased keratinization of the follicular epithelium, on the other, produce a favourable environment for strong over growth of propionibacteria, which belong to the resident skin flora and are non-pathogenic under normal circumstances. Metabolites of propionibacteria induce follicular and perifollicular inflammation especially due to chemotactic substances. The inflammatory component can be the dominant clinical feature in many patients. As a result of the inflammatory follicular changes, leukocytes can invade the follicular wall and follicular rupture may follow. The content of the comedone empties into the surrounding tissue. Keratin and hair components augment inflammation via a foreign body reaction, so that abscesses and fistulas as well as systemic signs of inflammation can occur.<sup>[13]</sup>

**In Ayurveda**<sup>[14]</sup>- In Ayurveda, a brief description about *mukhdushika* has been described. In all *Samhitas Kapha, Vata, & Rakta dushti* is considered as causative factor of the disease. According to *Sushruta Samhita* painful eruptions like thorn of *Shaalmali*, impregnated with *Meda* are found on the face of adolescent are called as *Mukhdushika*.

### Samprati

<sup>[15]</sup>


**Management:** Acne cosmetica or *mukhdushika* may be manage by *vishaghna mahakashay* and *lodhradi lepa*. *Lodhradi lepa* described in many ayurvedic classics for the treatment of *mukhdushika*. *Vishaghna mahakashay* described by *charak* and it helps to purify the blood.

### Vishaghna mahakashay

<sup>[16]</sup>

*Vishaghna mahakashay* includes following ten drugs- *Haridra, Manjishtha, Suvaha, Sukshma Ela, Palindi,*

*Chandana, Katak, Shirisha, Sidhuvaar, Shleshmatka. Vishaghna mahakashaya dravyas* shows the antitoxic effect by the treating of *Rakta* and *pitta dushti*. Toxins are released in the blood by the cell or tissues in. If toxins are not excreted by body further then it produces a pathogenesis of any type of disease. This *mahakashaya* herb neutralize the toxin by their *vishghana karma* and purify the blood and then eliminate the toxins from the body.

Various studies on drugs suggest their action such as<sup>[17]</sup>:

1. Immunomodulator Anti-stress
2. Adaptogenic Nootropic
3. Antioxidant.

These properties of herbs help them to treat allergic skin diseases produced due to various *Astamya aahar-vihaar, Dushivish* and also due to contact or by their external application.

S. N.	Drug (Sanskrit Name)	Latin Name	Family	Rasa	Guna	Doshghnta	Therapeutic uses
1	<b>Haridra</b> <sup>[18]</sup>	<i>Curcuma longa</i> Linn.	<i>Zingiberaceae</i>	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>KP</i>	<i>Krimighani, varnya</i> (complexion), <i>tawakdoshhara, raktavikarhara</i> (blood detoxifier), <i>vrana-paha</i> (antiulcer), <i>kandughni</i> (anti itching), <i>Vishaghna</i> (antitoxic), <i>kushthnuta</i> (Anti dermatosis).
2	<b>Manjishtha</b> <sup>[19]</sup>	<i>Rubia cordifolia</i> Linn.	<i>Rubiaceae</i>	<i>Tikta, Kashya, Madhura</i>	<i>Guru, Ruksha</i>	<i>RKP</i>	Astringent, anti-inflammatory, rejuvenating, <i>varnya</i> (complexion), <i>raktavikarhara</i> (blood detoxifier), <i>Vishaghna</i> (antitoxic), <i>Kushthnuta</i> (Anti dermatosis)
3	<b>Suvaha</b> <sup>[20]</sup>	<i>Pluchea lanceolata</i>	<i>Compositae</i>	<i>Tikta</i>	<i>Guru</i>	<i>KV</i>	<i>raktashodhak</i> (blood detoxifier), <i>shothahar, vednashamak vranapaha</i> (antiulcer), <i>Vishaghna</i> (anti toxic), <i>aamapachan</i>
4	<b>Sukshma Ela</b> <sup>[21]</sup>	<i>Elleteria cardinomum</i> Maton	<i>Zinfiberaceae</i>	<i>Madhur, Katu</i>	<i>Laghu, Ruksha</i>	<i>VPK</i>	Cooling, stimulant, digestive, <i>Vishaghna</i> (anti toxic), <i>kandughni</i> (Anti itching)
5	<b>Palindi</b> <sup>[22]</sup>	<i>Operculina turpethum</i>	<i>Convulvulaceae</i>	<i>Tikta, Katu, Lagh</i>	<i>Laghu, Ruksha,</i>	<i>KP</i>	<i>Krimighani, shothahar, Visarapahara</i> (antierysepils), <i>Keetvisha</i> (antidote of hexapodes)
6	<b>Chandan</b> <sup>[23]</sup>	<i>Santalum album</i> Linn.	<i>Santalaceae</i>	<i>Tikta Madhura</i>	<i>Laghu, Ruksha</i>	<i>KP</i>	<i>varnya</i> (complexion), <i>raktashodhak</i> (blood detoxifier), <i>Vishaghna</i> (anti toxic), <i>dahaprashamana</i> (burn healer), <i>twagdosshar</i>
7	<b>Katak</b> <sup>[24]</sup>	<i>Strychnos potatorum</i> Linn.	<i>Loganiaceae</i>	<i>Madhura, Kashaya, Tikta</i>	<i>Laghu, Vishad, Vikashi</i>	<i>KV</i>	<i>lekhan, Vishaghna</i> (antidote), <i>dahahara</i> (burn healer), <i>Moolkushthagnam</i> (root having Anti Leprosy Property)
8	<b>Shirisha</b> <sup>[25]</sup>	<i>Albizia lebbek</i> (L.) Benth.	<i>Leguminosae</i>	<i>Madhura, Kashaya, Tikta</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>VPK</i>	<i>varnya</i> (complexion), <i>Vishaghna</i> (anti toxic), <i>vedanasthapan, raktashodhak</i> (blood purifier), <i>kushthaghna visarapahara</i> (antierysepils), <i>Shothhara</i> (Anti -inflammatory)

9	<i>Sindhavaar</i> <sup>[26]</sup>	<i>Vitex nigundo</i>	Verbenaceae	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	KV	<i>Krimighani, kushthnuta</i> (Anti dermatosis), <i>vranashodhan, vranropan shoolshothahara</i> (Analgesic and anti inflammatory), <i>Kandughna</i> (Anti itching), <i>aamapachan</i>
10	<i>Shleshmataka</i> <sup>[27]</sup>	<i>Cordia Dichotoma Forst.F.</i>	Boraginaceae	<i>Kashaya, Tikta, Madhura</i>	<i>Snigdha, Guru, Pichhil</i>	VP	<i>vranashodhan, Vishaghna</i> (antitoxic <i>kushthnuta</i> (Anti dermatosis), <i>Sphotahara</i> (ulcer healer), <i>visarapahara</i> (antierysepils), <i>Aamahara</i> (anti toxic)

V=Vata, P=Pitta, K=Kapha

**Lodhradi lepa**<sup>[28]</sup>: This formulation is described in *Sarangadhar Samhita*. The contents of this *lepa* are *Lodhra*, *Dhanyak*, and *Vacha*, 3 drugs in equal amount and should be applied locally on the face and affected areas. All are *Kapha pitta-Shamak* and having *Varnya* (good for skin complexion), *Vranropak* (healing), and

*Dahaprashaman* (reduces burning) property. It is a topical administration which is predominantly *Kapha-Vata Shamaka* which relieves *Vedana* and *Kapha* dominant symptoms like *Kandu*, *Medogarbhtva*, *Shotha* etc. It has anti-inflammatory and *Rakta Stambhaka* properties.<sup>[29]</sup>

S.N.	Drug name	Latin name	Family	Ras	Guna	Doshagnata	Therapeutic uses
1	<i>Lodhra</i> <sup>[30]</sup>	<i>Symplocos recemosa</i> Roxb	Symplocaceae	<i>Kashaya</i>	<i>Laghu, Ruksha</i>	KP	Astringent, haemostatic, refrigerant, anti-inflammatory, used in acne & skin diseases, blood purifier
2	<i>Vacha</i> <sup>[31]</sup>	<i>Acorus calamus</i> Linn.	Araceae	<i>Katu, Tikta</i>	<i>Laghu, Tikshna</i>	KV	Antiinflammatory, <i>medhya, vednasthapan</i>
3	<i>Dhanyak</i> <sup>[32]</sup>	<i>Coriandrum sativum</i> Linn.	Umbelliferae	<i>Kashaya, Tikta, Madhura, Katu</i>	<i>Laghu, Snigdha</i>	VPK	Antiinflammatory, <i>shoolahar</i>

## DISCUSSION

The goals of treatment are to eliminate and prevent acne along with prevent scarring, improve the appearance of the patient and reduce the psychological effects. Modern medications for acne include topical therapies, antimicrobials, hormones, surgery, UV- radiations, laser treatment etc. But these have many limitations and adverse effects. Cosmetics products may consider as *garavish* which produce toxicity indirectly in our body and we suffer from Acne cosmetica or *mukhdushika*. *Vishaghna mahakashay* which having 10 antitoxic herbs may be play a good role in the management of acne by the action of neutralize the toxins in our body and purifying the blood. *Lodhradi lepa* useful for the treatment of acne and it also helpful in the prevention and cure of scarring due to its *varnya* property. The herbs having antioxidant, astringent property which is also benefit for the skin. *Vranaropana* property promotes faster healing of lesions without leaving scars. *Rakta shodhaka* property is helpful in blood purification. Thus this formulation may be increase the skin texture, make better the skin complexion as well as to cure the acne.

## CONCLUSION

Acne cosmetica is considered a chronic and relapsing inflammatory disease that can vary in severity and may require long-term management. Today's changed lifestyle like irregular diet, pollution, stress, hormonal changes are directly affecting the skin. It causes many skin diseases and most common of them in Acne i.e. *Mukhadushika*. For hiding the acne and to become beautify the skin, we use various cosmetic products and ultimately it leads to Acne cosmetica. As we see the prevalence rate increases, so there is scope for new researches & study. Hence we concluded from this discussion, that *Vishghna Mahakashaya* along with *lodhradi lepa* may be very effective in Acne cosmetica.

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