

ROLE OF VIRECHAN FOLLOWED BY LODHRADI LEPA AND MUKHDOOSHIKHAHAR VATI IN THE MANAGEMENT OF MUKHDOOSHICA

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ABSTRACT

According to *Ayurveda* healthy skin is a result of overall health condition of individuals and prescribes numerous skin care treatment that needs to be pursued at every stage of life. *Yuvanpidika* is one of the major concerns of the youth which disfigures the face and hence influences the personality of the young generation. Acne Vulgaris is a disease of the pilosebaceous follicle characterized by non-inflammatory (open and closed comedones) and inflammatory lesions (papules, pustules, and nodules). It can be correlated with *Mukhdooshika* in *Ayurveda*. The diseases in which the pidika are developed especially on the face of young persons (adolescents) are known as *Yuvanpidika* (*Tarunypitika*). *Yuvanpidika* is very commonly observed disease, which has been described as *kshudra roga* in classics. Various Systemic and local treatment are indicated in *Ayurveda* that help to cure Acne and also to regain the lost beauty and revive the personality.

Keywords: *Yuvanpidika, Kshudra roga, Mukhdooshika, Yuvanpidika, Shodhana chikitsa, Shaman Chikitsa*

INTRODUCTION

Although generally considered to be a benign, self-limiting condition, acne may cause severe psychological problems or disfiguring scars that can persist for a lifetime. Acne Vulgaris is a common skin disorder of pilosebaceous unit that primarily affects the face, chest and back which if not treated may lead to permanent scarring. It is a pleomorphic disorder and can manifest at any time during life but it most commonly presents between ages of 12-24, which estimates of 85% of population affected. In recent years multifactorial nature of acne has been elucidated.

In *Ayurveda*, it is termed as *Mukhdooshika*. In *Ayurveda* *Mukhdooshika* is described under the heading of *Kshudra-roga*. The *Shalmali* thorn like eruption on the face due to vitiation of *Kapha, Vata* and *Rakta* which are found on the face of adolescent are called as *Mukhdooshika* or *Yuvanpidika*. The *Shalmali* thorn like eruption on the face due to vitiation of *Kapha, Vata* and *Rakta* which are found on the face of adolescent are called as *Mukhdooshika* or *Yuvanpidika*. In *Ayurveda* for the treatment of *Mukhdooshika* (*Kshudraroga*) mainly two type of *Chikitsa* are described i.e. *Shodhana Chikitsa* and *Shaman Chikitsa*. As described by various

Acharya's the *Shodhana Chikitsa* includes *Vamana*, *Nasya* and *Shiravedha*. The *Shaman Chikitsa* includes various types of *Lepa* and *Pralepa*.

Mukhdooshika is a *Kshudraroga* mainly affecting the face which occurs due to Vata, Kapha, *Raktaprakopa*.¹ *Pidika* all over the face makes an individual unattractive particularly in adolescence where people are more cautious about their looks. This is common illness affecting 80% of adolescents. In 2010, acne was estimated to affect 650 million people globally making it the 8th most common disease worldwide². Acne starts at the age of 10-17 years in females and 14-19 years in males³. Even though acne is not a life threatening situation but it can lead to permanent scarring. Scarring can occur at any age including as early as 9-10 years.⁴

DRUG REVIEW

WHO defines drug as, "Any substance or product that is used or intended to be used to modify or explore physiological systems or pathological states for the benefit of the recipient". This definition appears more in compliance with the terms of *Ayurveda*, which aims at the preservation of good health apart from mitigation of diseases. The ultimate goal of *Ayurveda* i.e. *Prakriti-sthapana*; it can be achieved with the help of proper drug.

Thus, considering all the above points the drugs selected for managing *Mukhdooshika* are

1. *Virechan Karma*

2. *Mukhdooshika har vati*

LODHRADI LEPA⁵

Table 1: CONTENTS & PART USED OF *LODHRADI LEPA*

S.N.	CONTENTS	SCIENTIFIC NAME	PART USED	RATIO
1	<i>Lodhra</i>	<i>Symplocos Racemosa</i>	Bark	1 part
2	<i>Dhanyak</i>	<i>Coriandrum Sativum</i>	Seed	1 part
3	<i>Vacha</i>	<i>Acorus Calamus</i>	Root	1 part

3. *Lodhradi lepa*

VIRECHAN KARMA

Mukhdooshika is caused due to vitiation of *Kapha*, *Vata* and *Rakta Dosha*. *Acharya Charaka* has highlighted the role of *Panchakarma therapy* by stating that the disease treated by *Shodhana* will never recur in due course of time. These *Shodhana* probably may leads to certain endogenous changes in the body responsible for the alleviation of Acne pathological process. Hence *SanShodhana (Virechan)* therapy seems to be line of treatment.

Among all the *Shodhana karma* first preference is given to *Virechana* by the physicians because of its broad spectrum applicability and simplicity with least possibility of complications; *Virechan* not only helps in eliminating *Doshas* from the body but it has also preventive as well as promotive aspects. The importance of *SanShodhana* along with *Shaman* therapy will be more helpful in the treatment of this ailment. Among *Shodhana s*, *Virechana* is best for the diseases of *Pitta & Rakta Pradosaja* and some extent of *Kapha*, which are main *Dosha* of *Mukhdooshika*.

According to these lines of treatment, *Virechana* was firstly administered to the patients as a *Shodhana* measure. Role of external application in *Mukhdooshika* is as important as internal medication. *Acharya Charaka* has described *Lepana* as *Sadyah Siddhi Karaka*. (*च.चि.7/53*)

Table 2: PROPERTIES OF LODHRADI LEPA

S.N.	DRUG	RASA	GUNA	VIRYA	VIPAKA	DOSHA KARMA	AUSHDHA KARMA	PHARMAC-OLOGICAL PROPERTI-ES ⁶
1	<i>Lodhra</i>	<i>Kashaya, Tikta,</i>	<i>Laghu, Ruksha</i>	<i>Shita,</i>	<i>Katu</i>	<i>Kapha-Pittahar</i>	<i>Grahi,</i>	Anti-inflammatory properties ^{7,8}
2	<i>Dhanyak</i>	<i>Kashay, Tikta</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosahar,</i>	<i>Deepana Pachana, Grahi</i>	Antioxidant Activity, Antimicrobial Activity
3	<i>Vacha</i>	<i>Katu, Tikta</i>	<i>Laghu, Tikshana</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Vatahar,</i>	<i>Lekhaniya, Medha</i>	Antimicrobial activity Antifungal activity

MUKHDOOSHIKA HAR VATI**Table 3: CONTENTS OF MUKHDOOSHIKA HAR VATI**

S.N.	CONTENTS	SCIENTIFIC NAME	FAMILY	PART USED	RATIO
1	<i>Manjistha</i>	<i>Rubia Cordiafolia</i>	Rubiaceae	Root	1 part
2	<i>Nimb</i>	<i>Azadirachta Indica</i>	Meliaceae	leaves	1 part
3	<i>Chopchini</i>	<i>Smilax China</i>	Liliaceae	Root	1 part
4	<i>Guduchi</i>	<i>Tinospora Cordifolia</i>	Menispermaceae	Stem	1 part
5	<i>Haridra</i>	<i>Curcuma Longa</i>	Zingiberaceae	Rhizome	1 part
6	<i>Sariva</i>	<i>Hemidesmus Indicus</i>	Asclepidaceae (periplocaceae)	Root	1 part

Table 4: PROPERTIES OF MUKHDOOSHIKA HAR VATI

S.N.	DRUG	RASA	GUNA	VIRYA	VIPAKA	DOSHA KARMA	AUSHDHA KARMA	PHARMAC-OLOGICAL PROPERTI-ES ⁹
1	<i>Manjistha</i>	<i>Madhur, Tikta,</i>	<i>Guru, Ruksha</i>	<i>Ushna</i>	<i>Kau</i>	<i>Kapha-Pittahar,</i>	<i>Kustha, Visharpa, Shotha,</i>	Antibacterial activity, bloodpurifier
2	<i>Nimb</i>	<i>Tikta, Kashay</i>	<i>Guna, Laghu Ruksha</i>	<i>Shita</i>	<i>Katu</i>	<i>Kapha-Pittahar</i>	<i>Deepan Krimighna</i>	Anti-Inflammatory Skin-Disorder, Antimicrobial, Immunostimulant Activity
3	<i>Chopchini</i>	<i>Tikta,</i>	<i>Laghu, Ruksha,</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridosha-Har,</i>	<i>Vata-Rog, Unmad,</i>	Antimicrobial, Antioxidant, Anti-Inflammatory,
4	<i>Guduchi</i>	<i>Tikta, Kashaya</i>	<i>Guru, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha Shamak,</i>	<i>Medhya, Rasyan, KandughnaDahapraShaman</i>	Anti-Inflammatory Analgesic, Hepato-protective Antioxidant Antiallergic ¹⁰ Antistress
5	<i>Haridra</i>	<i>Katu, Tikta</i>	<i>Laghu, Ruksha, Teekshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Vatahar,</i>	<i>Kustha, Krimi, Kandu, Vrana,</i>	Antibacterial Anti-InflammatoryAntioxidant Hepato-protective
6	<i>Sariva</i>	<i>Madhur, Tikta,</i>	<i>Guru, Snigdha</i>	<i>Shita</i>	<i>Madhur</i>	<i>Tridosha-Shamak</i>	<i>Kusthaghna Rakta-Shodhak, Shotha-Har</i>	Anti-inflammatory Antioxidant, Antileprotic

METHOD OF PREPARATION OF DRUGS**Preparation of Mukhdooshika har Vati:-**

All six raw drugs obtained, from a renowned crude drug supplier from (Prem Nagar Ashram) Haridwar, were identified & authenticated by the department of

Dravyaguna, Rishikul campus, Uttarakhand Ayurved University, Haridwar. All raw drugs (1kg each) were cleaned thoroughly with water and dried under sun to remove the moisture and later grinded to fine powder, and to increase the potency of vati;

Bhawana given by *Swaras* of *Nimb*, *Haridra* & *Guduchi* for 3 times (of each *Swaras*) to the above prepared fine powder. The whole mixture was compressed into tablet weighing 500mg each. The tablets (*Vati*) were packed in sterile polythene covers containing 150 tablets approximately each.

Preparation of *Lodhradi lepa* (modified as gel):-

Lodhradi lepa^{11,12} is described by different Acharya's in their text; as reference for the base for preparing *Lodhradi Lepa* was not mentioned. Here *Lodhradi lepa* modified as gel formulation has been proposed as topical application; Topical gel formulation provides a suitable delivery system for drugs because they are less greasy and can be easily removed from the skin, percutaneous absorption of drugs from topical formulation and permeation through skin to reach the target tissue. Gel base formulation makes the drug molecules more easily removable from system than cream, ointment, or lepa. Gels for dermatological use have favorable properties such as being greaseless, easily spreadable, easily removable, emollient, non-staining, and compatible with several excipient and water soluble or miscible.

Lodhradi gel containing three ingredients (*Lodhra*, *Dhanyak*, *Vacha*) taken in equal proportion (3kg each) and all raw drugs collected from a renowned crude drug supplier from Haridwar, were identified & authenticated by the department of Dravyaguna, Rishikul campus, Uttarakhand Ayurved University, Haridwar. These raw drugs were cleaned thoroughly with water and dried under sun to remove the moisture and later grinded to fine powder. This powder was soaked in water (three times of raw material) for 24 hours and after 24 hours this soaked drug mixture was boiled till water gets evaporated and the mixture changed to dried form, then distilled water was added to dilute this dried mixture. On the other side a gel base powder (Carbapol) was taken

and mixed with distilled water to transform from powder to gel base form then preservatives MPS & PPS added into it. After that this gel base mixed with diluted mixture of drugs to form *Lodhradi Gel*; then this self-formulated gel packed to plastic sealed container (weighing 30 gm).

RESULTS^{13,14}

20 **Patients** diagnosed with *Mukhdooshika* was selected from the O.P.D. / I.P.D. department of Kaya-chikitsa, Rishikul Campus, Haridwar, on the basis of inclusion and exclusion criteria. Assessment of the patients was done at the interval of **15 days** i.e. two assessments were done and follow-up was done **30 day** after completion of treatment to look for any recurrence. In the study it was observed that 15 out of 20 patients got excellent relief, 2 patients got marked improvement while only 3 patients got mild improvement in their symptoms. In follow-up study only 2 patients came with recurrence of the *pidika* but less in their severity.

DISCUSSION

***LODHRADI LEPA*^{15,16}:**

This *Lepa* constitutes *Lodhra*, *Dhanyaka* and *Vacha*. *Mukhdooshika* mainly occurs due to vitiation of *Kapha*, *Vata* and *Rakta*. It is understood that drugs should possess *Kaphavatahara* and *Raktashamaka* property. *Lodhra* has *Kaphapittashamka*, *Sravastambhaka*, *Raktashodhaka* and *Ropana* property. Ethanolic extracts of *Lodhra* has Anti-Acne activity. *Kaphavatahara* and *Lekhana* property of *Vacha* acts directly on the causative *Dosha* of *Mukhdooshika*. *Teekshnaguna* of *Vacha* clears the *Srotoavarodha*. *Madhura*, *Tikta*, *Kashayarasa* and *Tridosahara* property of *Dhanyaka* helps in the *Shamana* of *Prakupitadosha*. Thus, these unique properties present in the ingredients of this yoga helps in *Samprapti Vighatna* of *Mukhdooshika*.

PROBABLE MODE OF ACTION OF DRUGS

Probable Mode of Action of *Virechana Karma*¹⁷:

All *Acharya*'s have common opinion regarding the importance of *Shodhan* in the management of different diseases.

KARMA	MODE OF ACTION
<i>Deepan.</i>	Enhances appetite and it pacifies vitiated <i>Vata dosha</i>
<i>Snehapan, Abhyang & Swedana</i>	Expels vitiated Doshas from <i>Shakha</i> to <i>Kostha</i> . By virtue of its property <i>Ghrita</i> is <i>Pitta-Shamak</i> and <i>Agni-Dipak</i> .
<i>Virechan Karma</i>	It is targeted to expel increased <i>Pitta Dosha</i> out of the body i.e. <i>Srotoshodhan</i> . As we know that <i>Rakta</i> is said to be <i>Pitta Sadharmi</i> so it will pacify vitiated <i>Pitta</i> as well as vitiated <i>Rakta</i>
<i>Sansarjana kram</i>	Due to <i>shodhan (Virechan)</i> procedure <i>Mandagni</i> develops therefore <i>Sansarjan kram</i> maintain <i>Agni</i> balance or equilibrium.

2. Probable Mode Of Action of *Lodhradi Lepa*:-

First trial drug for the study was *Lodhradi lepa*; *Lepa* one among the *Bahya Pradana Upakarm*, which could be easily employed with effective results. Hence *Lepa* had been selected for external application along with *Virechana*. '*Lodhradi Lepa*' as described in *Astang Hridaya*¹⁸, *Chakradatt*¹⁹, *sharangdhar samhita*; had been selected for this study. It contains 3 drugs namely *Lodhra, Dhanyak, Vacha*. Ingredients of *Lodradi Lepa* are having the predominance of *Tikta, Katu* and *Kashaya Rasa, Laghu Guna, Katu Vipaka* and *Ushna Virya*. These properties alleviate *Kapha Dosha*. *Lodradi Lepa* is capable of pacifying vitiated *Vata Dosha* by its *Madhura Rasa, Snigdha Guna, Ushna Virya* and *Madhura Vipaka*. Due to the presence of *Madhura, Tikta, Kashaya Rasa, Snigdha Guna* and *Sheeta Virya* it alleviates *Pitta Dosha*. *Ruksha guna* helps in drying up the *Pidika*. *Tikshna guna* assists the drug to act fast, spreading in to the deep and squeeze out the pus inside. As *Tikta Rasa* is having *Rakta Shodhana* property acts on vitiated *Rakta Dhatu* and purifies it. By cleansing the blood, it cures the skin diseases and enhances the skin complexion. The drug consists of *Shothahara, Vrana ropana, Pachana* and *Krimighna* properties. Hence helps to enhance the healing process of *Mukhdooshika* (*Acne Vulgaris*). *Medoghna* property of *Vacha* will be useful in the subsiding of *Medogarbha pidika*.

Ingredients of *Lodradi Lepa* are rich in flavonoides and tannins. Flavonoides are proven to possess good antioxidant property. Antioxidants protect the skin from the oxidative damage. Tannins promote the healing process by increasing capillary formation. All the ingredients are considered to possess anti-inflammatory, analgesic and anti bacterial actions. Due to the anti-inflammatory action the drug helps to improve the outcome at the site by reducing the inflammatory features such as *Saruja* (pain) and *Saraktata* (bleeding). The analgesic action of ingredients is beneficial in the management of pain (*Saruja*). Due to antibacterial action they avoid secondary infections.

Probable Mode of Action of *Lepa*:

The probable mode of action of *Lepa* can be described in two steps as follows:

I) **Pilosebaceous Uptake:**

When a *Lepa* is applied over the surface of skin opposite to the direction of hairs on it, through a proper base, the active principles of the ingredients of *Lepa* are released into that base. After that, this combination enters the *Romkupa* & further gets absorbed through the *Swedavahi Srotas* & *Siramukh*²⁰. However, it should be kept in mind that the pilosebaceous uptake i.e. absorption of *Lepa* differs as per the site variation, skin condition & more important is the base through which it is applied.

II) Cutaneous Biotransformation:

Thereafter it is subjected for *Pachana* by *Bhrajakagni* viz. the viable epidermis starts off the catabolic degradation of the absorbed material with the help of essential enzymes. In due course of the above transformation, some new metabolites might be forming which pacifies the provoked *Doshas* locally & thus breaks the pathogenesis cycle leading to the alleviation in the symptoms.

3. Probable Mode of Action of Mukhdooshika har Vati

All the 6 ingredients (*Manjistha*, *Sariva*, *Chopchini*, *Nimb* *Haridra* *And* *Guduchi*) of *Mukhdooshika har vati* (Anubhut/self formulated drug) has been shown their Anti-inflammatory, Anti-microbial, Anti-acne effect in Various studies & *Acharya charaka* has described *Manjistha* and *Sariva* in *Varnya Mahakashaya*, *Haridra* in *kusthaghna*, and *Vishaghna Mahakashaya*, *Guduchi* and *Sariva* in *DahpraShaman Mahakashaya*. This *Vati* basically contains *Raktaprasadan Dravyas* like *Sariva*, *Manjistha*, *Chopchini* which detoxifies blood, *Shothahar*, and *krimihar Dravyas* like *Nimb*, *Guduchi*, *Haridra* subsides *shotha*, excessive sebum production and reduces bacterial load; Almost all the drugs are having *Tridosh-Shamak* properties. *Mukhdooshika har vati* is Mainly *Tikta Rasa*, *Pradhana*, *Laghu Ruksha Guna*, *Ushna Virya* and *Katu Vipaka Pradhana* through which it helps in management of *Mukhdooshika* by breaking the *Samprapti*.

Anti-inflammatory action of *Sariva*, *Guduchi*, *Nimb*, *Chopchini* & *Haridra* reduces *Shotha* (inflammation), Antibacterial action of *Manjistha*, *Chopchini*, *Nimb* & *Haridra* reduces bacterial load and its colonization thus reduces *Paka* / discharge heals lesions, Anti-oxidant property of *Sariva*, *Guduchi*, *Chopchini* & *Haridra* reduces accumulation of dead cells or reduces retentional hyperkeratosis thus removes scar or *Vaivarnya*, Analgesic property of *Guduchi* reduces pain (*Vedana*), Anti-allergic property of *Guduchi* reduces *kandu* by reducing stimulation of mast cell and Anti-

stress activity of *guduchi* reduces stress which is a main causative factor for the development of *Acne Vulgaris*. Moreover it has an ingredients (*Haridra* & *Guduchi*), having hepato-protective property by means of which it protects liver & repair damaged liver cells. It also has property of detoxification. It detoxifies the body & assists excretion of accumulated toxin from the body by enhancing liver function. In *Ayurveda* it can be understood in relation with *Shonita*, *Raktavaha Srotas*, and *Yakrit*. In *shonitaja rogas* (disorders due to vitiated blood), *Vaivarnya*²¹ (skin discoloration) is mentioned *Prasanna Varnendriyaartha* (bright skin tone and texture etc) are the *Lakshanas* of *Vishuddha Rakta Purusha*²² (characteristics of a person having pure and detoxified blood) *snigdha rakta Varna in rakta sara*²³ and liver is said to be the *mula* of *Shonitavaha/ Raktavaha Srotas*. This shows that liver is the *Karana* (cause) for *Vaivarnya*, *Prasanna Varna* and other disorders of skin. Therefore, *Mukhdooshika har vati* also has rejuvenative action for liver. Therefore multi factorial action of these contents of *Mukhdooshika har Vati* may be the possible reason for its better effect.

CONCLUSION

It can be concluded that *Virechan followed by Lodhradi Lepa and Mukhdooshikahar Vati* after, which is efficiently decreases the clinical symptoms, controls infection, hastens the healing process can be recommended in the management of *Mukhdooshika* (*Acne vulgaris*)

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