

## Ayurvedic Management of Mukhadushika (*Acne vulgaris*): A Clinical Case Report

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### Abstract

*Acne vulgaris* (*Mukhadushika*) is a common dermatological disorder affecting young adults and is primarily associated with the vitiation of *Kapha*, *Pitta*, and *Rakta* doshas. The condition manifests as pustules, papules, come-dones, and post-inflammatory hyperpigmentation, often causing both physical and psychological discomfort. Conventional therapies may provide temporary relief but are often associated with relapse or adverse effects, making Ayurvedic management a promising alternative. The present clinical case study reports the successful management of *Mukhadushika* through *Jalaukavacharana* (leech therapy) combined with internal herbal formulations and lifestyle modification. A 26-year-old female patient presented with acne lesions, itching, burning sensation, and facial discoloration. The treatment included four sittings of *Jalaukavacharana* performed at 15-day intervals, accompanied by internal administration of *Avipattikar Churna*, *Shigru Patra Churna*, *Aragvadhadi Kashaya*, and *Manjisthadi Ghanvati* for four months. A strict *Pathya–Apathya* (dietary regimen) was maintained during the therapy. Marked improvement was observed within 15 days, with significant reduction in itching, inflammation, and new lesion formation. Complete remission was achieved after four sittings, and no recurrence was noted during follow-up. The results indicate that *Jalaukavacharana* in combination with *Raktashodhaka* herbal medications effectively purifies the blood, balances *Pitta–Kapha* doshas, and restores skin homeostasis. This

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study suggests that Ayurvedic interventions can serve as a safe, holistic, and sustainable alternative for managing *Mukhadushika* without adverse effects.

**Key words :** *Mukhadushika*, Acne vulgaris, *Jalaukavacharana*, *Raktashodhaka dravya*, *Pitta–Kapha* balance, Ayurvedic therapy, Blood purification.

*Acne vulgaris* is among the most common chronic inflammatory disorders of the pilosebaceous unit, affecting nearly 80 % of adolescents and a considerable number of adults worldwide<sup>2</sup>. The disease results from the interplay of follicular hyper-keratinization, excess sebum production, Cutibacterium *Acnes* colonization, and inflammation<sup>3</sup>. Clinically, it presents with comedones, papules, pustules, and, in severe forms, nodules or cysts that may lead to scarring. Although not life-threatening, acne has profound psychosocial implications, contributing to anxiety, depression, and reduced quality of life<sup>4</sup>. Conventional management including benzoyl peroxide, retinoids, topical or systemic antibiotics, and hormonal therapy often yields partial or temporary improvement and carries adverse effects such as irritation, photosensitivity, and microbial resistance<sup>5,6</sup>. These limitations have stimulated growing interest in integrative approaches based on *Ayurvedic* principles<sup>6</sup>.

In *Ayurveda*, acne vulgaris closely corresponds to *Mukhadushika*, enumerated under *Ksudra Roga* in classical text<sup>7</sup>. It is described as *Salmali-kanṭaka-akara pidika* spiny, elevated lesions associated with *vedana* (pain), *kandu* (itching), *daha* (burning), *ghana* (induration), and *vaivarnya* (discoloration). The pathogenesis involves vitiation of *Kapha*,

*Pitta*, and *Rakta doṣh* as<sup>7</sup>. *Kapha* causes obstruction and sebaceous accumulation, *Pitta-Rakta* initiate inflammation and suppuration, and *Vata* contributes to dryness and discomfort<sup>13</sup>. Disturbance of *Rasa dhatu* and *Tvak* further perpetuates chronicity. *Ahara* (dietary errors), *Vihara* (irregular lifestyle), and *Manasa bhavas* (stress) aggravate *doshas* and lead to *Rakta dushti* (blood vitiation)<sup>24,27</sup>.

According to *Susruta Samhita*, *Raktamoksana* (blood-letting) is the prime therapy for *Rakta pradosaja vikara*<sup>27</sup>. Among its forms, *Jalaukavacharana* (leech therapy) is advocated for delicate individuals and inflammatory skin diseases because of its *sheeta* (cooling), *raktaprasadaka* (purifying), and *sothahara* (anti-inflammatory) properties<sup>18</sup>. Modern analyses have identified bioactive peptides in leech saliva like- Hirudin, Calin, Bdelins, Hyaluronidase, and Destabilase, that exhibit anticoagulant, anti-inflammatory, analgesic, and antimicrobial actions<sup>12,26</sup>. These findings substantiate the classical concept of *Raktamokṣaṇa* in detoxifying localized inflammation. Internal therapy (*Samana Chikitsa*) aims to pacify *Pitta* and *Kapha* and purify *Rakta dhatu*. Formulations such as *Avipattikara Churna* regulate digestion and prevent *Ama* formation<sup>23</sup> *Shigru Patra Churna* (*Moringa oleifera*) exerts antioxidant and antimicrobial activity<sup>25</sup>, *Aragvadhadi Kashaya*

functions as *Raktashodaka* and *Kuṣṭmghna*<sup>16</sup>, and *Manjisthadi Ghanvati* enhances complexion and tissue healing through its *raktaprasadaka* effect<sup>15</sup>. Adjuvant measures-*Mridu Virechana* (mild purgation), *Lepa* (topical applications), and strict adherence to *Pathya-Apathya* (dietary and behavioral regimen), which further maintains *dosa* and prevents recurrence<sup>18, 24</sup>.

*Aim and Objective :*

To document the clinical outcome of  
AYURVEDIC MANAGEMENT OF  
MUKHADUSHIKA (ACNE VULGARIS)

This is a single – patient intervention case report

*Case report :*

*Patient information :*

A 26-year-old patient has come to Khemdas Hospital. The patient was normal nine months ago. The patient had eruptions that were accompanied by pain, intermittent discharge, itching, burning sensation, and the development of dark post-inflammatory spots all over the bilateral cheeks for which she consulted dermatologist. She was treated with allopathic medicines (Adapalene Clindamycin cream and Tab. Doxycycline) for about eight months, but she experienced no improvement. She was not willing to undergo further allopathic treatment, and she sought Ayurvedic management from this department. Clinical examination was done based on Ayurvedic parameters.

The present case study is the successful management of *Mukhdushika*, i.e., acne

*vulgaris*, by *Jalaukavachjarana* (blood-letting-therapy), internal application of *Avipittikar churna*, *Shigru Patra Churna*, *Aragwadadhi Kashaya*, and *Manjisthadi Ghanvati*.

*History of present Illness :*

The patient had above complaints since last 8 months. In this period, she experienced small pustules over her both cheeks. Also, she had itching and burning sensation over these areas.

***History of Patient :*** The patient had been in good health until approximately two years ago, when she gradually developed persistent facial oiliness followed by the appearance of nodular acne. These eruptions were accompanied by pain, intermittent discharge, itching, burning sensation, and the development of dark post-inflammatory spots. She had previously used multiple topical preparations and systemic allopathic medications, but experienced only minimal and short-term relief. Continued application of oil-based creams and cosmetic soaps further aggravated the condition. Due to the progressive worsening of symptoms and inadequate response to prior treatments, she sought Ayurvedic management at the Khemdas hospital Vadodara.

***Past history:*** The patient did not report any significant medical illness in the past. There was no history of chronic conditions such as diabetes, thyroid disorders, asthma, allergies, or any dermatological problems before the onset of the present complaint. She had not undergone any major surgeries or hospital admissions.

Table-1. Personal History

1.	Name	---
2.	Age	26 years
3.	Sex	Female
4.	Occupation	Student
5.	<i>Deha Bala</i>	<i>Madhyam</i>
6.	<i>Mansik Bala</i>	<i>Uttam</i>
7.	<i>Prakriti</i>	<i>Pitta kapha</i>
8.	Sleep	Irregular
9.	Addiction	Tea
10.	Bowel Hobbit	Regular
11.	Appetite	Medium
12.	Blood pressure	120/90mmHg
13.	Height	5.4 feet
14.	Weight	62 kg

Table-2. *Ashtavidha Pariksha* :

Sr. no	<i>Pariksha</i>	Result
1	<i>Nādī</i> (Pulse)	80/min
2	<i>Malā</i> (Stool)	Constipation
3	<i>Mutra</i> (Urine)	Normal
4	<i>Jihvā</i> (Tongue)	<i>Sama (coated)</i>
5	<i>Śabda</i> (Speech)	Clear
6	<i>Sparāea</i> (Touch)	<i>Samsitoṣṇa</i>
7	<i>Drk</i> (Vision)	Normal
8	<i>Ākrti</i> (Body Build)	Madhyama

Table-3. *Dashavidha Pariksha*

Sr.no	<i>Pariksha</i>	Result
1.	<i>Prakriti</i> (constitution of the patient)	<i>Vata-Pitta</i> (humour constitution of body)
2.	<i>Vikriti</i> (pathological variations)	<i>Pitta, Kapha, Rasa, Rakta, Meda</i>
3.	<i>Sara</i> (quality of tissues)	<i>Asthisara</i> (quality of bone tissue)
4.	<i>Samhanana</i> (built of body)	<i>Madhyam</i> (average)
5.	<i>Pramana</i> (anthropometric measurements)	<i>Madhyam</i> (average)
6.	<i>Satmya</i> (adaptability)	<i>Amla</i> (sour), <i>Lavana</i> (savoury) <i>Rasa</i> (taste)
7.	<i>Satva</i> (mental strength)	<i>Madhyam</i>
8.	<i>Vyayamashakti</i>	<i>Madhyam</i>
9.	<i>Aharashakti</i>	<i>Madhyam</i>
10.	<i>Vaya</i> (age)	26 years

*Systemic examination :*

Respiratory system- The Chest is bilaterally symmetrical, with no abnormal sounds heard. Cardiovascular system- S1S2 normal. Musculoskeletal system- Superficial and deep reflexes are intact. Gastrointestinal system- Soft, non-tender, non-palpable.

*Local examination :*

There are some macules, papules, and pustular nodules on the face. Their size ranges from 1 to 3 mm. Despite the absence of discharge, the lesions are sensitive to the touch.

***Nidana*** : The patient consumes oily, spicy, and sour food and has indigestion, hyperacidity, and exposure to sunlight.

***Samprapti***: Due to improper eating

habits and lifestyle, predominantly *Tridosha*, *Pitta Pradhana kapha* get aggravated, which causes *rasa*, *rakta*, *meda* and *swedavaha strotodushti* and cause the disease *Mukhadushika acne valeric*.

*Samprapti Ghataka (Pathogenic factors):*

*Dosha: Pitta pradhana tridosha* (humour constitution of the body)

*Dushya: Rasa* (plasma), *Rakta* (blood), *Meda* (fat), *Sweda* (sweat)

*Agni: Dhatwagni* (tissue metabolism), *Jataragni* (digestive fire)

*Ama: Jataragni Mandhya* (undigested food toxins in digestive fire)

*Material with Daily Treatment & Prognosis:*

Patient was given 3 sittings of *Jalaukavacharan* on 14 days interval along with internal medicines. Regular follow-up was made at every 15-day interval.

#### ***Treatment timeline of the patient :***

Sr.no	Drug	Dose	Anupana	Duration
1.	<i>Avipattikara Churna</i>	2 gm bd	Lukewarm water	2 months
2.	<i>Shigru Patra Churna</i>	2gm bd	Lukewarm water	2 months
3.	<i>Aragvadhadi Kasaya</i>	20 ml bd	Lukewarm water	2 months
4.	<i>Manjisthmadi Ghanvati</i>	2-tab bd	Lukewarm water	2 months

#### ***Treatment Timeline and Results :***

Visit	Treatment	Acne over face ( <i>Pidika</i> )	Symptoms Burning sensation over face ( <i>Daha</i> )	Itching over face ( <i>Kandu</i> )	Discoloration of skin ( <i>Vaivarnaya</i> )
1.	Before Treatment	++	++	++	++
2.	Medicine	+++	++	+	++
3.	Continue the above medicines	++	+	+	+
4.	Above medication + 1st sitting of <i>Jalaukavacharan</i>	+	+	+	+
5.	Above medication + 2nd sitting of <i>Jalaukavacharan</i>	Almost cure	Almost cure	Almost cure	Almost cure
6.	Above medication + 3rd sitting of <i>Jalaukavacharan</i>	Almost cure	Almost cure	Almost cure	Almost cure
7.	Above medication + 4th sitting of <i>Jalaukavacharan</i>	Cure	Cure	Cure	Cure

**Source of Leeches :** All leeches used in the study were procured from a reputed biological product supplier in Vadodara.

*Preparation of the Patient :*

To ensure procedural safety, the patient underwent preliminary investigations, including bleeding time, clotting time, and serological screening for HIV, HBsAg, and HCV, to exclude bleeding tendencies and transmissible infections.

Before leech application, gentle oil massage was administered over the facial region, followed by brief steam fomentation. This preparatory step was intended to improve local blood circulation and facilitate effective bloodletting. The skin surface was then cleaned thoroughly using a sterile dry cloth to remove sweat, oil, and other secretions. The patient was positioned comfortably in a relaxed posture to allow uninterrupted completion of the procedure.

*Leech Application :*

Active leeches were placed near the affected area containing pustules or papules. They attached themselves naturally to the site, so no lancet prick was needed. Once attached, a damp cotton pad was placed over each leech to keep it moist. In each session, three leeches measuring about 3–4 inches in length were used. Each leech sucked approximately 5–8 mL of blood before detaching on its own.

*Post-procedure Care :*

Following detachment, the bite sites were gently cleansed with sterile water and dressed appropriately. The leeches were then made to regurgitate the ingested blood using *Haridra* or *sphatika bhasma* and disposed of in accordance with biomedical waste management guidelines. Post-procedure advice included avoidance of sun exposure,

spicy food, and excessive physical exertion for the remainder of the day.

*Leech Management :*

Each leech detached from the site on its own after about 20–25 minutes. After removal, *Haridra Churna* was applied to the leech's front sucker to make it expel the ingested blood. In some cases, the leech was gently pressed to help release the remaining blood. Once completely emptied, the leech became active again and was then placed in clean, fresh water.

*Patient Management :*

After the leech detached, the patient was observed for about four hours to check for any secondary bleeding at the bite site. *Sphatika Bhasma* mixed with a small amount of water was applied to the area. Soon after, cotton gauze was placed over the site and firmly pressed to stop further bleeding. The patient was advised not to remove the dressing until the next morning to ensure proper clot formation and prevent re-bleeding.

*Dietary (Do's & Don'ts) Advice during Treatment :**Pathya (Advise) :*

Patients were advised to include green grains, wheat, fresh fruits, and mainly red and green vegetables in their daily diet. Adequate night sleep was recommended along with 10–15 minutes of deep breathing exercises in the open air each day. *Paad Abhyanga* was suggested every night before sleeping. Patients were also advised to wash their face before going to bed and after returning from outdoor activities to maintain skin hygiene.

*Apathya (Avoided) :*

Patients were instructed to avoid oily,

fried, and spicy foods, as well as bakery items, curd, fast food, and cold drinks. They were also advised to avoid *Ratrijagran*, *Diwaswapna*, and squeezing or extracting acne lesions.

Improvement in the patient's condition was noticed within the first 15 days of treatment. By the third visit, there was a clear reduction in *Daha*, *Shotha*, and the appearance of new acne. After one or two sittings of *Jalaukavacharana* (leech therapy), the patient experienced quick and visible relief in *Kandu*, *Daha*, and *Vaivarnyata*. After four sittings of *Jalaukavacharana* along with regular internal medicines for about four months, the patient showed complete recovery. The acne lesions healed without leaving scars, and no new

eruptions were seen. All symptoms were fully resolved by the end of the treatment, and the patient was highly satisfied with the results. Follow-up showed no recurrence of acne. In Fig. 3

The present case demonstrates the clinical efficacy of classical Ayurvedic therapeutics in the management of *Pitta-Kaphaja Mukhadushika* through a structured regimen combining *Jalaukavacharana* and internal *Raktashodhaka* formulations. The clinical presentation of *Pidika*, *Kandu*, *Daha*, and *Vaivarnya* indicated *Rakta Dushti* with predominant *Pitta* and *Kapha* involvement, in accordance with the classical descriptions in *Charaka Samhita* and *Sushruta Samhita*<sup>9,10</sup>.



Before Treatment Therapy Fig. 1



Leach Therapy Fig. 2



After Treatment Fig. 3

The Ayurvedic therapeutic approach aimed at *Samprapti Vighatana*, the disintegration of pathogenic mechanisms by purifying the vitiated *Rakta Dhatu* and balancing the aggravated *Doshas*.

*Jalaukavacharana* served as the principal *Sodhana Chikitsa* in this case due to its mild, targeted, and effective bloodletting action recommended for *Raktapradoshaja Vikara*<sup>20</sup>. The application of medicinal leeches improves local microcirculation and eliminates stagnant, vitiated blood containing inflammatory mediators. The saliva of *Hirudo medicinalis* is biochemically rich in several pharmacologically active compounds, including Hirudin, Bdelin, Calin, Apyrase, Hyaluronidase, and Destabilase, each exerting specific physiological effects such as anticoagulation, thrombolysis, vasodilatation, and anti-inflammatory modulation<sup>12,19</sup>. These actions enhance oxygenation and nutrient delivery to the affected tissue while reducing erythema, edema, and congestion. Clinical studies have also validated the antimicrobial and wound-healing effects of leech saliva by demonstrating inhibition of bacterial growth, acceleration of tissue repair, and restoration of normal microvasculature<sup>8,27</sup>. In the present case, the patient reported significant reduction in pain, itching, and redness after the second sitting, confirming the classical concept of *Raktamo-kshana* as the therapy of choice for *Pitta-Rakta Dushti Vyadhi*.

The internal medications provided systemic correction by addressing *Dosha-Dushya Sammurchana*. *Avipattikar Churna*, composed of *Trikatu*, *Triphala*, and *Musta*, acted as a *Pittashamaka*, *Deepana*, and

*Pachana* agent, thereby regulating gastric functions, improving metabolism, and preventing *Ama* formation<sup>23</sup>. This helped reduce internal heat and hyperacidity that contribute to *Pitta* vitiation. *Shigru Patra Churna* was included for its potent anti-inflammatory and antioxidant activity, attributed to flavonoids, quercetin, and chlorogenic

Acid<sup>2,25</sup>. These phytoconstituents suppress pro-inflammatory cytokines such as TNF- $\alpha$  and IL-6, thus reducing follicular inflammation. *Aragvadhadi Kashaya*, a polyherbal decoction described in *Sahasrayoga*, has established *Raktashodhaka*, *Kushtaghna*, and *Vranashodhana* properties<sup>17</sup>. The presence of *Aragvadhadi* and *Nimba* confers antibacterial and detoxifying effects, which are critical in clearing *Kapha-Pitta* blockages at the follicular level. *Manjisthadi Ghanvati*, containing *Rubia cordifolia* as a key ingredient, served as an effective *Raktaprasadaka* and *Varnya* agent. Experimental studies have shown that *Rubia cordifolia* exhibits inhibitory activity against *Cuti bacterium acnes* and significantly modulates inflammatory mediators, which validates its use in acne management<sup>15,16</sup>.

The observed clinical improvement can be attributed to the synergistic effect of *Jalaukavacharana* and internal medication, which together facilitated detoxification, improved circulation, and enhanced local healing. Pharmacological analysis suggests that leech-derived bioactive peptides reduce pro-inflammatory prostaglandin synthesis and stimulate fibroblast proliferation<sup>12,26,27</sup>. These mechanisms correlate with the rapid subsidence of inflammatory lesions seen in the patient. Moreover, *Raktashodhaka dravyas* such as *Manjistha*, *Guduchi*, and *Shigru* strengthen the

immune system and prevent recurrence by maintaining blood purity and homeostasis<sup>7,18</sup>.

Equally important in the therapeutic outcome was adherence to *Pathya-Apathya*, a fundamental principle in Ayurvedic practice. A diet emphasizing light, non-oily, and *Pitta-Kapha* pacifying foods, including green vegetables, fruits, and whole grains, supported *Rakta Prasadana* and sustained digestive balance<sup>11</sup>. Avoidance of spicy, fermented, and fried foods preventing *dosha* aggravation, while adequate sleep, regular facial cleansing, and stress control minimized triggers associated with acne flare-ups<sup>13</sup>. Modern research corroborates that psychological stress, circadian rhythm disruption, and poor dietary patterns influence sebaceous gland activity and inflammatory cytokine production<sup>13</sup>. Thus, lifestyle regulation complemented pharmacotherapy in achieving a durable cure.

By the end of four sittings of *Jalaukavacharana* and four months of internal therapy, the patient achieved complete remission with no recurrence during follow-up. The clinical improvement corresponded with reduced *Kandu*, *Daha*, and *Vaivarnya*, along with restoration of normal skin texture. This outcome underscores the holistic strength of Ayurveda, which aims not only at lesion eradication but also at restoring systemic balance. The dual strategy of *Raktamokshana* and *Raktashodhana* produced a multidimensional response-eliminating local toxins, normalizing blood flow, reducing inflammation, and rejuvenating *Tvak dhatu*.

This case aligns with previous research affirming the role of *Jalaukavacharana* and

*Raktashodhaka* formulations in *Pitta-Kaphaja Mukhadushika* and other *Raktapradoshaja Rogas*<sup>7,17,18</sup>. The absence of adverse effects, coupled with sustained remission, demonstrates that integrative Ayurvedic therapy provides an evidence-based, patient-centered, and eco-compatible alternative to chemical-based acne treatments. The results advocate further clinical trials evaluating combined *Raktamokshana* and herbal interventions for chronic inflammatory skin conditions within the Ayurvedic paradigm.

The present case demonstrates that *Mukhadushika*, a *Pitta-Kaphaja Vyadhi*, can be effectively managed through *Jalaukavacharana* combined with internal *Raktashodhaka* and *Pittahara* formulations. The integrated treatment provided significant relief in *Kandu*, *Daha*, *Shotha*, and *Vaivarnyata*, leading to complete remission within four months without recurrence. The therapy successfully purified the blood, balanced *Pitta* and *Kapha doshas*, and restored normal skin tone and texture. This case highlights the effectiveness of *Ayurvedic* modalities as a safe, natural, and holistic alternative for managing acne vulgaris, emphasizing the relevance of classical principles in modern dermatological practice.

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*Author's Contribution* :

Dr. Kalptaru Roy the case, conducted clinical assessment, and drafted the manuscript. Dr. Mariya Husain supervised the clinical interpretation and revised the manuscript. Both

authors reviewed and approved the final version.

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