



RESEARCH ARTICLE

A CRITICAL REVIEW OF MUKHADUSHIKAIN CLASSICAL LITERATURE WITH SPECIAL REFERENCE TO ACNE VULGARIS

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Abstract

Background: Mukhadushika, described under Kshudra Roga by Acharya Sushruta, is a common dermatological condition in Ayurveda, also known as Yuvanpidika due to its occurrence during adolescence. It is characterized by ShalmaliKantaka-like (thorn-like) eruptions on the face. In modern dermatology, it closely resembles Acne vulgaris, which affects approximately 79–95% of adolescents and has become a major concern due to its rising prevalence associated with stress, pollution, hormonal imbalance, and unhealthy lifestyle practices.

Methods: A conceptual review was conducted based on classical Ayurvedic texts and relevant modern dermatological literature.

Results: According to Ayurveda, Mukhadushika occurs due to the vitiation of Kapha and Vata Dosha along with Rakta Dushti. The involvement of Meda Dhatu leads to the formation of Pidika (eruptive lesions). Clinically, these lesions resemble papules and pustules seen in Acne vulgaris. Modern science explains acne as a disorder of the pilosebaceous unit involving follicular hyperkeratinization, increased sebum production, and ductal blockage, resulting in inflammatory lesions and possible scarring.

Conclusion: Mukhadushika shows a strong correlation with Acne vulgaris in terms of clinical presentation and pathogenesis. Ayurveda offers a holistic management approach through Shodhana Chikitsa and Shamana Chikitsa, which helps in eliminating vitiated Doshas, preventing recurrence, and improving overall skin health.

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Introduction:-

The skin is the largest organ of the human body and functions as a sensory organ as well as the primary protective barrier safeguarding internal structures. Changes in skin colour may reflect disturbances in the body's homeostasis [1]. According to Ayurveda, the skin is not merely an external covering but is also considered a Gyanendriya, specifically known as Sparshendriya, which is distributed throughout the body and closely associated with the mind

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(Mana). In Ayurvedic texts, thorn-like eruptions on the face resembling Shalmali Kantaka, occurring due to the vitiation of Kapha, Vata, and Rakta in adolescents, are termed Mukhadushika^[2]. Since these lesions commonly appear during youth (Yuva) and resemble small pustules or boils (Pidika), they are also referred to as Yuvan Pidika. As the condition adversely affects facial appearance, it is named Mukhadushika. Acharya Sushruta has classified Mukhadushika under KshudraRoga^[3].

Acne has often been described as the bane of youth, and while it is sometimes considered merely a cosmetic concern, it can lead to profound and lasting emotional and psychological consequences. Acne predominantly affects the skin of the face and back. Acne vulgaris is a self-limiting condition commonly seen in adolescents and young adults, though 10–20% of individuals may continue to experience it into adulthood. It is one of the most prevalent dermatological disorders during adolescence and is defined as a chronic inflammatory condition of the pilosebaceous units. Clinically, it presents with comedones, papules, pustules, and less frequently nodules. The condition is characterized by both open and closed comedones, papules, pustules, cysts, nodules, and scarring. Open comedones appear as blackheads due to external environmental factors, while closed comedones manifest as whiteheads, usually resulting from internal factors. Although acne can occur at any age, it predominantly affects teenagers^[4,5]. Thus, from a modern medical perspective, acne vulgaris closely corresponds to Mukhadushika in both its symptoms and pathology.

Aim:-

This article aims to review and analyse the description of the symptoms and pathophysiology (Samprapti) of Mukhadushika as documented in various Ayurveda Samhitas.

Material and Methods:-

According to SushrutSamhita^[6]

शास्मलीकण्टकप्रख्याः कफमारुतशोणितैः ।

जायन्तेपिडकायूनांवक्तेयामुखदूषिकाः ॥३८॥ (su. Nidan)

Due to the vitiation of Kapha, Vata, and Rakta, thorn-like eruptions resembling the thorns of the silk cotton tree (Semal) appear on the face of young individuals. These eruptions are known as Mukhadushika.

According to AshtangaHridayam^[7]

शास्मलीकण्टकाकाराः पिटिकाः सरुजोधनाः ।

मेदोगर्भमुखेयूनां ताभ्यांचमुखदूषिकाः ॥ (As. Hridayam)

During the early period of youth in young men and women, multiple eruptions appear densely on the face. These eruptions resemble the thorns present on the trunk of the Semal tree sharp at the tip and broader at the base. They are slightly painful, arise due to vitiation of Meda (fat tissue), and are caused by Kapha and Vata. This condition is known as Mukhadushika. ॥5॥

According to AshtangaSangraha^[8]

शास्मलीकण्टकाकाराः पिटिकाः सरुमोधनाः ।

मेदोगर्भमुखेयूनां ताभ्यांचमुखदूषिकाः ॥ (As. Sangraha)

Due to Kapha and Vayu, in adult individuals, eruptions appear on the face specifically over the cheeks, forehead, nose, and chin. These eruptions resemble the thorns of the Semal tree, are slightly painful, dense and compact, and are filled with Meda (fat/sebaceous material). This condition is known as Mukhadushika.

According to Madhav Nidan^[9]

शास्मलीकण्टकप्रख्याः कफमारुतरक्तजाः ।

युवानपिडका यूनां विज्ञेया मुखदूषिकाः ॥३३॥ madhavnidan

Eruptions resembling the thorns of the Semal tree that occur on the face of young individuals due to Kapha, Vayu, and Rakta are called Yuvanapidika or Mukhadushika. ॥33॥

According to BhavparkashSamhita^[10]

शास्मलीकण्टकमस्याः कफमारुतरफजाः ।

जायन्तेपिडकापूमशियास्तामुखदूषिकाः ॥

(bhavparkash madhyam khanda) The eruptions that appear on the face of individuals, resembling the thorns of the Semal tree, and arising due to the vitiation of Kapha, Vayu, and Rakta, are known as Yuvanapidika or Mukhadusika. These eruptions naturally occur on the faces of young men, and therefore they are also called Yuvanapidika. ||11||

According to Bhaishajyaratnavali Samhita^[11]

Due to the vitiation of Kapha, Vayu, and Rakta, young men and women develop eruptions on the face especially over the cheeks which resemble the thorns of the Semal tree and are filled with pus. These eruptions are called Mukhadusika. (भैषज्यरत्नावली)

According To Vangsen Samhita^[12]

शास्त्रलीहण्टकप्रख्याः कफमारुतशोणितैः।

जायन्तेपिटिकायूनांविशेषामुखदूषिकाः॥३९॥(vangsenchp. 32)

Due to the aggravation of Kapha, Vata, and Rakta, eruptions resembling the thorns of the Semal tree appear on the face during adolescence. In common language, these are known as acne (pimples). ||39||

According To Yogaratnagar Samhita^[13]

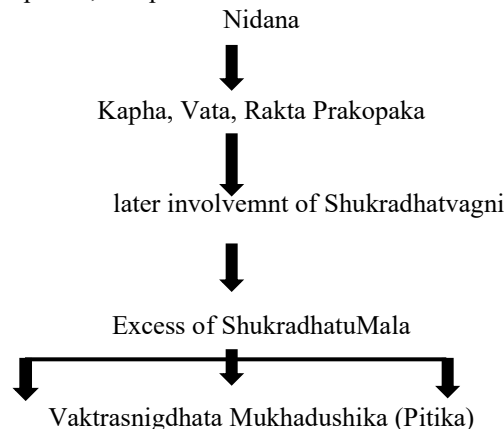
शास्त्रलीहण्टकप्रख्याः कफमारुतरक्तजाः।

जायन्तेपिटिकायूनांविशेषामुखदूषिकाः॥ (योगरत्नागर)

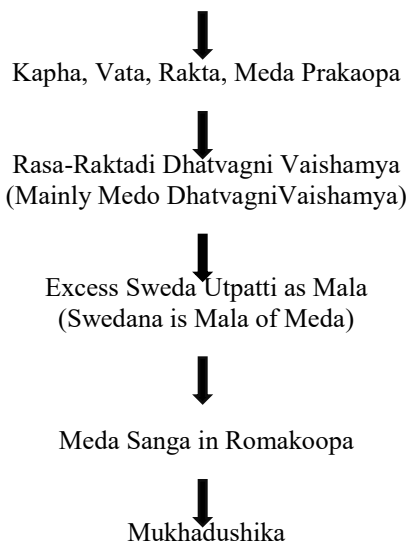
Eruptions resembling the thorns of the Semal tree, caused by the aggravation of Kapha, Vayu, and Rakta, which spoil the facial beauty of young men, are known as Mukhadusika or Yauvanapitika.

Nidana	▪ Kalaja: Factors related to adolescence and seasonal variations. ▪ Aharaja: Excess intake of spicy, oily, heavy, fried, and sticky food articles. ▪ Viharaja: Improper lifestyle habits such as daytime sleeping, staying awake at night, excessive exposure to sunlight, and suppression of natural urges. ▪ Manasika: Psychological factors including stress, anger, fear, and emotional imbalance.
Purvarupa	▪ Itching (Kandu) ▪ Pain (Vedana) ▪ Swelling (Shotha) ▪ Discoloration of skin (Vaivarnya)
Rupa	▪ Pidika: Eruptive lesions ▪ Saruja: Painful eruptions ▪ Ghana: Hard and thickened lesions ▪ Medogarbha: Comedone-like lesions filled with fatty material ▪ Shalmali Kantaka Prakhyia: Thorn-like eruptions resembling the spines of the silk cotton tree ▪ Commonly distributed over cheeks, chin, nose, and forehead

Samprati- Vitiation of Kapha, Vata, Rakta, and Pitta leads to obstruction of the body channels (Srotas), resulting in inflammation and the formation of follicular lesions. The involvement of Meda Dhatu further contributes to lesion development, comparable to sebum accumulation in acne vulgaris.



2. According to Ashtanga Sangraha & Ashtanga Hridaya the Samprapti of Mukhadoshika^[14]
Nidana sevana



Pathogenesis of acne:-

a) Increased Sebum Production: Excess sebum production is a key factor in acne development. Androgens, particularly testosterone, and insulin-like growth factor-1 (IGF-1) stimulate sebaceous glands, leading to increased sebum secretion. Higher sebum levels are strongly associated with greater acne severity and lesion formation^[15,16].

b) Follicular Hyperkeratinization: In normal skin, keratinocytes are shed regularly from hair follicles. In acne, excessive keratinocyte proliferation and impaired shedding cause blockage of the pilosebaceous unit, resulting in comedone formation^[17,18].

c) Cutibacterium acnes Proliferation: Cutibacterium acnes (formerly Propionibacterium acnes) is a gram-positive anaerobic bacterium that thrives in sebum-rich follicles. It produces lipase, which breaks down sebum triglycerides into free fatty acids, promoting comedone formation and triggering inflammation^[19,20].

d) Inflammation: The proliferation of C. acnes activates the immune response, leading to the release of inflammatory mediators and recruitment of immune cells. Follicular rupture releases bacteria, lipids, and fatty acids into the dermis, resulting in inflammatory lesions such as papules, pustules, nodules, and cysts. Reactive oxygen species (ROS) released by neutrophils further aggravate tissue damage and inflammation^[21,22].

Samprapti Ghataka:-

- **Dosha:** Kapha, Vata, Rakta
- **Dushya:** Rasa, Rakta, Meda, Shukra
- **Srotas:** Rasavaha, Raktavaha, Svedavaha
- **Agni:** Jatharagni Mandya (impaired digestive fire)
- **Roga Marga:** Bahya Roga Marga (external pathway affecting the skin)

Management of Mukhadushika in Ayurveda: The foremost step in treatment is Nidana Parivarjana elimination of causative factors such as improper diet, excessive oily and spicy food, stress, irregular lifestyle, and poor skin hygiene.

Ayurveda explains two main modalities of treatment for Mukhadushika Shodhana Chikitsa (purification therapy) and Shamana Chikitsa (palliative therapy).

Shodhana Chikitsa: - Shodhana aims to eliminate the vitiated Doshas (mainly Kapha, Vata, Pitta, and Rakta) from the body through Panchakarma procedures.

It is especially advised in chronic or severe cases:-

- Vamana – Therapeutic emesis to expel aggravated Kapha.
- Virechana – Purgation therapy to purify Pitta and vitiated Rakta.
- Nasya – Nasal administration of medicines beneficial in diseases of the face and head region.
- Raktamokshana (Siravedha) – Bloodletting therapy indicated when Rakta Dushti is predominant.

Shamana Chikitsa:-

ShamanaChikitsa helps pacify the aggravated Doshas and improve skin health through internal medications and external applications.

InternalMedications:-

Drugs possessing Kapha-Vatashamaka, Raktashodhaka (blood-purifying), and anti-inflammatory properties are commonly prescribed, such as:Haridra, Manjistha, Nimba, Guduchi, Sariva, Lodhra, Daruharidra, Khadira, Methika, and Vacha. These herbs help in detoxification, reducing inflammation, controlling excessive oil secretion, and preventing recurrence.

External Applications (Lepa):-

Topical herbal formulations are applied over the affected area to reduce swelling, pain, discoloration, and scarring.

Commonly mentioned Lepas include:-

- Yashtimadhvadi Lepa
- Lodhradi Lepa
- Masuradi Lepa
- Shalmalikantakadi Lepa
- Jatiphaladi Lepa
- Marichyadi Lepa

Different classical Acharyas have described specific treatment approaches for Mukhadushika:-

- Sushruta – Vamana and Lepana^[23]
- Ashtanga Hridaya – Lepana, Vamana, Nasya, Shiravedha^[24]
- Bhavaprakasha – Lepa, Vamana, Abhyanga^[25]
- YogaRatnakara– Shiravedha, Pralepa, Abhyanga^[26]
- SarangadharaSamhita – Lepa^[27]
- BhaishajyaRatnavali – Shiravedha, Pralepa, Abhyanga^[28]
- Chakradatta–Lepa^[29]

Result:-

Classical Ayurvedic literature describes Mukhadushika (Yuvanpidika) as a common facial disorder of youth caused mainly by Kapha, Vata, and Rakta dushti, with involvement of Meda. It presents as painful, thick, thorn-like eruptions over the face, especially the cheeks, forehead, nose, and chin. The reviewed features closely correlate with acne vulgaris of modern medicine. The disease develops due to improper diet, lifestyle, stress, and adolescent changes, leading to dosha vitiation, srotas obstruction, and lesion formation. Ayurvedic management is based on Nidana Parivarjana, Shodhana, and Shamana Chikitsa, including Vamana, Virechana, Nasya, Raktamokshana, internal herbs, and topical Lepa.

Discussion:-

Mukhadusika, also known as Yuvanapidika, is a classical dermatological condition described under KṣudraRoga in Ayurvedic texts such as Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, Madhava Nidana, Bhavaprakash, Yoga Ratnakara, Vangsen Samhita, and Bhaishajya Ratnavali. It is characterized by thorn-like eruptions resembling Salmali Kaṇṭaka, primarily involving vitiation of Kapha, Vata, and Rakta along with MedaDhatu. Clinically, it corresponds to Acne vulgaris, including comedones, papules, pustules, and nodules. The involvement of Meda and Sweda with obstruction of Romakupa closely correlates with blockage of pilosebaceous units due to excess sebum and keratin.

Classical etiological factors include Aharaja, Viharaja, Kalaja, and Manasika influences such as guru and snigdhaahara, day sleep, night awakening, and stress, which are comparable to modern acne triggers like hormonal imbalance, unhealthy diet, lifestyle irregularities, and environmental factors. The Samprapti involves Kapha-Vata-Rakta vitiation, Medodhatvagnidysfunction, and Srotorodha, leading to inflammatory lesions, closely resembling follicular hyperkeratinization, sebum overproduction, microbial activity, and inflammation in acne pathogenesis.

Management is holistic, involving Shodhana (Vamana, Virechana, Nasya, Raktamokshana) for detoxification and Shamana therapy for symptom control, including internal medications and external Lepas, which help reduce inflammation, purify blood, and improve skin health while preventing recurrence. The choice of treatment depends

on Dosha predominance and disease severity. Vamana eliminates aggravated Kapha, Lepana reduces local inflammation and lesions, whereas Shiravedha is beneficial in chronic inflammatory conditions associated with Rakta Dushti. Shodhana is preferred in severe cases, while Shamana is suitable for mild to moderate disease. Herbs such as Haridra, Nimba, Manjistha, and Guduchi possess predominantly Tikta and Kashaya Rasa, which help pacify Kapha and Pitta, purify Rakta, and reduce inflammation. Similarly, Lodhradi Lepa helps reduce Kleda, Meda, and local inflammatory lesions.

Conclusion:-

Mukhadushika or Yuvanapidika is a well-defined dermatological condition in Ayurveda that closely correlates with Acne vulgaris in modern medicine, both in clinical presentation and pathogenesis. Classical Ayurvedic texts provide a detailed description of its Nidana, Rupa, Samprapti, and Chikitsa, emphasizing the role of Kapha, Vata, Rakta, and Meda in disease manifestation. The striking similarity between Ayurvedic concepts such as MedogarbhaPidika, Romakupa Sanga, and modern understanding of pilosebaceous dysfunction highlights the scientific depth of Ayurveda.

Early intervention through NidanaParivarjana, Sodhana, and ShamanaChikitsa not only helps in controlling active lesions but also prevents complications such as scarring and psychological distress. Unlike purely symptomatic modern treatments, Ayurveda offers a rootcauseoriented, holistic approach, addressing dietary, lifestyle, mental, and systemic factors. Thus, Ayurvedic management of Mukhadusika provides a safe, effective, and sustainable alternative or complementary approach to modern acne treatment. Integrating classical Ayurvedic principles with contemporary dermatological understanding can open new avenues for comprehensive acne management and improved quality of life in affected individuals.

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