

Case Report

Ayurvedic Management of Acne Vulgaris

Abstract

Introduction: Acne vulgaris has always been one of the most burning problems of the young population. Acne vulgaris like presentation in Ayurveda has been described as *Shalmali* thorn like eruptions on the face due to vitiation of *Kapha*, *Vata*, and *Rakta* under the heading of *Mukhadushika*. Very less scientific data is available depicting the effect of Ayurvedic intervention in such cases. **Main Clinical Finding:** Present case reports a 26 years old female having multiple acne for the past 6 months. She had papules and pustule with itching, pain, and blackish spots on cheeks. **Diagnosis:** Condition was diagnosed as Acne vulgaris (Ayurvedic diagnosis – *Pitta-Kapha* dominant *Tridoshika Mukhadushika*). **Interventions:** The patient was treated with *Kaishor Guggulu*, *Raktaprasadakahima*, and the local application of *Terminalia arjuna* powder mixed with honey daily for 1 month. **Outcome:** The patient had relief in all the symptoms after 15 days of treatment with no new eruptions. Complete remission of the disease was observed after 1 month of treatment with the improved skin condition. **Conclusion:** This case study demonstrates the potential and usefulness of Ayurveda in the management of acne vulgaris.

Keywords: Ayurveda, case report, Kaishor guggulu, Sebaceous glands, Terminalia arjuna

Introduction

Acne vulgaris is a common cutaneous disorder characterized by chronic or recurrent development of papules, pustules, or nodules on the face, neck, trunk, or proximal upper extremities^[1] with the peak of severity in the late teenage and may persist up to the 3rd decade and beyond, particularly in females.^[2] In different countries and among different age groups, the prevalence of acne varies, with estimates ranging from 35% to over 90% of adolescents having acne at some stage.^[3] The primary factor for the appearance of the disease is the increase in sebum production by sebaceous glands.^[4] The condition mainly affects the face (99%) and to a lesser extent the back (60%) and chest (15%). Noninflamed lesions (comedones) develop earlier than inflamed lesions in younger patients. The superficial lesions are usually papules and pustules, and the deep lesions are deep pustules and nodules.^[5]

Acne in *Ayurveda* has been described as *Mukhadushika* or *Yuvanapidika* under the heading of *Kshudraroga*. *Shalmali* thorn like eruptions on the face due to vitiation of

Kapha, *Vata*, and *Rakta* are known as *Yuvanapidika* or *Mukhadushika* or *Tarunaya Pidika*.^[6] *Sa-ruja* (painful), *Ghana* (thick, hard, or indurate), and sebum (*Meda*) filled *Pidika* (eruptions) are hallmarks of *Mukhadushika*.^[7] Vitiated *dosha* get accumulated and obstruct the *Lomakupa* (pilosebaceous unit) causing local swelling and micro comedone formation. *Paka* (inflammation) of these elements lead to papule, pustule, and cyst formation which on rupture cause *Vrana vastu* (scar) formation. Allopathic treatment includes the use of topical retinoid, benzoyl peroxide, oral antibiotics, steroids, and oral isotretinoin^[8] although its use is limited by teratogenicity and other side effects.^[9] *Ayurveda* has a great potential in the management of various skin disorders and in this article, a success story of the management of acne vulgaris is being reported.

Case Report

A 26-year-old married, non-smoking, non-alcoholic Hindu female, registered vide outpatient department number 4011122019, presented with complaints of multiple eruptions on cheeks for 6 months. Eruptions were distributed all over the face but

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maximum on the cheeks [Figure 1]. Symptoms started with a single eruption on her right cheek and within 15 days multiple eruptions spread all over the face. History of purulent discharge from pimples was present along with pain and itching. The pain was mild to moderate in nature and aggravate on manual rupturing of pimples. The itching was worse during evening and night hours and on exposure to dust and sunlight. Blackish spots on the face were present as leftover marks of pimples. According to the patient, she had used some allopathic medicines but did not get significant relief. The local use of soaps, face wash, and creams were worsening the symptoms sometimes. The patient had no history of associated fever, psoriasis, eczema, melasma, or any other chronic illness such as diabetes, hypertension, tuberculosis, thyroid disorder, polycystic ovaries, or surgical interventions. Her appetite was good with normal bladder and bowel movements. On examination of the eruptions, they were 2–4 mm wide erythematous papules and pustules on the face with both variety of comedones (blackheads and white head) and scarring in a few of the lesions. Mild tenderness was present on palpation over the pimples. The rest of the skin was normal in texture with normal elasticity. Recorded blood pressure was 110/70 mm of Hg, pulse was 74/min, and other vital signs were within normal limits. No other significant abnormal clinical finding was detected during the systemic examination.

Therapeutic intervention

Vitiated *Tridosha* along with the vitiation of *Rakta* (blood) and *Meda* (Sebum) are the main pathognomic factors in *Mukhadushika*. In the present case, symptoms such as *Shula* (pain) and *Vrana Vastu* (scar) were due to vitiated *Vata* whereas *Paka* (Inflammation) and *Daha* (burning sensation) were due to vitiated *Pitta* and *Rakta*. Vitiated *Kapha* is responsible for the development of *Puya* (pus), *Sotha* (swelling), *Srava* (discharge), and *Kandu* (itching) in the lesions. The patient was diagnosed with *Pitta-Kapha* dominant *Tridoshic Mukhadushika*. Hence, two oral drugs *Kaishor Guggulu*^[10] and *Raktaprasadaka hima* having *Pitta-Kapha* pacifying actions and *Rakta shodhaka* (blood purifier) properties were selected. For local application powder of bark of *Arjuna*^[11] was selected.

Oral intervention

The posology of oral intervention is mentioned in Table 1.

Method of preparation and use for *Raktaprasadaka hima*

The patient was advised to soak 6 g of *Raktaprasadaka hima* powder in one cup (50 ml) of cold water for at least 12 h during the night. After soaking for the required duration, the mixture was mashed properly and filtered through a clean cloth. The patient was instructed to consume the filtrate empty stomach.

Drug for external application

The patient was asked to take 6 g of fine powder of the bark of *Arjuna* and mix it with honey in sufficient quantity and apply it on the face once daily. The medicated paste (*Lepa*) was leftover the face for half an hour and then rinsed off using cold water. Fresh powder was used every time to make the paste. Bark of *Terminalia arjuna* Roxb. has *Varnya* (good for skin color), *Twachaya* (beneficial for skin problems), *Kandughna* (reduces itching), and *Vrana Ropana* (wound healing) properties.^[12]

Diet and Lifestyle advised during treatment

Pathya (Do's)

Green leafy vegetables, wheat, rice, moong dal, fruits, lukewarm water in sufficient quantity to drink, homemade food.

Apathya (Don'ts)

Junk food, curd, cold drinks, nonveg, tea, alcohol, excess sweets, excess spices, fried, and food articles having excess fat content. *Ratrijagaran* (night awakening), *Divaswapna* (daytime sleeping), manual rupturing of acne, excessive exposure to sunlight, and dust.

Table 1: Ayurveda oral drug intervention

Name of drug	Dose	Frequency	Anupana	Duration (month)
<i>Raktaprasadaka hima</i>	50 ml	Once a day	Cold water	1
<i>Kaishore guggulu</i>	1 g	Twice a day	Luke warm water	1

Table 2: Grading of sign and symptoms

Sign and symptoms	None (0)	Mild (1)	Moderate (2)	Severe (3)
Number of lesions (acne)	0	1 (1-4)	2 (5-8)	3 (>8)
Pain	0	1	2	3
Itching	0	1	2	3
Number of black heads	0	1	2	3

Table 3: Changes in sign and symptoms after Ayurvedic intervention

Sign and symptoms	Before treatment	1 st follow up	2 nd follow up
Acne	3	2	0
Pain	2	1	0
Itching	3	1	0
Number of black heads	3	3	1

Follow-up and outcome

The outcome was assessed based on the improvement in clinical signs and symptoms. Criteria on which improvement was observed were the number of lesions (acne), pain, itching, and the number of black heads [Table 2]. The patient was assessed for 1 month with follow-up at the interval of 15 days. Photographs at fixed megapixel under the same intensity of light, posture, and distance were obtained before intervention and at every follow-up visit to observe the improvement. Significant improvement in all signs and symptoms was observed after Ayurvedic interventions [Table 3]. The patient did not develop new eruption of papules after intervention and had relief in pain and other symptoms after 15 days of treatment [Figure 2] whereas complete remission was achieved after 1 month of treatment [Figure 3].

Discussion

In the present case, there was a history of regular consumption of *Vidahi* (sour and pungent), *Abhishyandi* (potential elements causing obstruction in channels), and *Virrudha* (incompatible) food such as fast food, salty, and oily substances with the habit of *Adhyashana* (consuming food without earlier meal completely digested), *Ratri Jagaran* (late night sleep), and *Divaswapana* (day time sleep). These etiological factors may be the cause for vitiation of *Kapha-Pitta and Rakta*, further causing secondary vitiation of *Vata* due to *Srotas avarodha* (sebaceous glands in this pathogenesis) resulting in the formation of *Pidika* (eruptions) on the face with clinical presentation as acne with pain, itching, and discoloration of skin [Figure 3]. *Kapha-Pitta-Rakta* pacifying treatment was planned according to the principles of the management of *Mukhadushika*.

Hima kalpana a type of *Panchavidha kashaya kalpana* is one of the best *Pitta Shamak Kalpana* (formulation).^[13] *Raktaprasadaka hima* contains *Solanum nigrum* Linn., *Hemidesmus indicus* R. Br., *Phyllanthus urinaria* Linn., *Rubia cordifolia* Linn., and *Vetiveria zizanioides* Linn. These ingredients possess a blood purifier, *Kushthagha* (beneficial for skin disease), *Shothahara* (reduces swelling), *Varnya* (good for skin color), *Twakdoshahara* (beneficial for skin problems), *Dahaprashamana* (reduce burning sensation), and wound healing properties. *Hemidesmus indicus* R. Br. and *Rubia cordifolia* Linn. the main ingredients of *Raktaprasadaka hima* have shown anti-inflammatory activity in research studies by suppressing the Propionibacterium induced reactive oxygen species and proinflammatory cytokines, the two important inflammatory mediators in acne pathogenesis.^[14] The antiacne effects of *Rubia cordifolia* include four mechanisms i.e., antibacterial, anti-inflammatory, antioxidant, and antiandrogen activities.^[15]

Kaishor guggulu having *Guduchi*, *Triphala*, and *Guggulu* as main ingredients has *Kaphaghna* and *Medoghna* effect



Figure 1: Image taken at first visit to outpatient department



Figure 2: Image taken at second visit to outpatient department after 15 days



Figure 3: Image taken at third visit to outpatient department after 1 month

due to *Katu*, *Tikta*, and *Kashaya Rasa* dominance. It helps in eliminating the vitiated *Kapha* which is mainly responsible for increased sebum production and thus obstructing the ducts of the sebaceous glands. *Kaishor Guggulu* has antiallergic, antibacterial properties

acts as a natural blood cleanser and is indicated in different skin diseases.^[16] *Kaishore guggulu* is having *Raktaprasadaka*, *Vataghna*, *Shothahara* (reduces swelling), *Vrana ropaka* (wound healing properties), and *Rechaka* (laxative) properties by virtue of which it was helpful to reverse the underlying pathogenesis

Arjuna twaka is *Sheeta Veerya* in nature and has *Kashaya Rasa*, *Laghu*, *Ruksha guna*, *Pitta shamaka*, and *Rakta Prasadaka* properties. Due to *Kashaya Rasa* and *Sheeta Veerya* properties, it encounters vitiated Pitta and *Rakta Dosha*, removes the *Twaka Vaivarnayata*, and helps to maintain the normal skin color. The *Rakta Prasadaka*, *Varnaya* (good for skin color), *Vranaropaka* (wound healing), and *Twaka Prasadaka* actions of *Arjuna* pacify the locally accumulated *Dosha* and help in mitigating the external manifestation of the disease. The flavonoid components present in *Arjuna* have anti-inflammatory, antioxidant, and antibacterial properties^[17,18] which help to fight the root cause of acne vulgaris. Honey was used for making a paste with *Arjuna Twaka* powder because in different studies honey has shown antiseptic, antimicrobial, anti-inflammatory, antioxidant, healing, and cleansing properties.^[19]

In the present study, during the first follow-up, significant relief in all signs and symptoms of acne was observed. There was disappearance of already present acne with no new eruptions, complete relief in itching and the pain was observed with significant improvement in blackish spots over the face in 1-month duration.

Conclusion

Acne vulgaris is a common skin disorder which affects almost all individuals at least once during life. It is a chronic disease having relapsing nature and is difficult to manage if not dealt with appropriately at the right time with appropriate treatment strategies. The present case study clearly demonstrates that Ayurvedic principles and drugs are very effective in the management of acne vulgaris. However, a clear understanding of the *Pancha Nidana* (Ayurvedic diagnostic method) and appropriate selection of drugs are essential to get the desired results. *Raktaprasadaka hima*, *Kaishore guggulu*, and the local application of *Arjuna* bark powder with honey were found to be effective in acne vulgaris in present case with no untoward side effects.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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सारांश

परिचय: किशोरावस्था की व्याधियों में मुखदूषिका एक ज्वलन्त समस्या है। आयुर्वेद में कफ, वात एवं रक्त की दुष्टि से उत्पन्न इस व्याधि को मुख दूषिका या युवानपिडका के नाम से वर्णित किया गया है, जिसमें शाल्मली कण्टक के समान पिडकाएं मुखमण्डल पर उत्पन्न होती हैं। इस व्याधि में आयुर्वेद चिकित्सा के प्रभाव को दर्शाने वाले वैज्ञानिक आंकड़ों की कमी है। **मुख्य नैदानिक लक्षण:** प्रस्तुत केस २६ वर्षीय एक महिला के सन्दर्भ में है जो पूर्व ६ महीने से मुख पर पीड़ा, कण्डू एवं पूययुक्त कृष्णमण्डलों से पीड़ित थी। **व्याधि विनिश्चय:** व्याधि का निदान ऐक्नेवलगेरिस (आयुर्वेदिक निदान - पित्त कफ प्रधान त्रिदोषज मुखदूषिका) किया गया। **चिकित्सीय प्रयोग:** रुग्णा को कैशोर गुग्गुल रक्तप्रसादक हिम खाने के लिये एवं मधुयुक्त अर्जुनत्वक चूर्ण का लेप लगाने के लिये एक महीने के लिये दिया गया। **परिणाम:** चिकित्सा प्रारम्भ करने के १५ दिवस के पश्चात नई पिडकाओं की उत्पत्ति नहीं हुई तथा पूर्व की पिडकाओं में भी सुधार देखने को मिला। एक माह की चिकित्सा के पश्चात मुखमण्डल आकर्षक एवं पिडका रहित हो गया। **निष्कर्ष:** प्रस्तुत केस स्टडी युवान पिडका में आयुर्वेदिक चिकित्सा की उपयोगिता, आशुकारिता एवं सफलता को वर्णित करती है।

