

A CASE REPORT ON MANAGEMENT OF RECURRENT ACNE VULGARIS WITH RAKTAMOKSHANA AND SHAMANA THERAPY

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ABSTRACT

Acne is a prevalent chronic inflammatory condition mostly affecting teenagers and young adults, According to Ayurveda, *Yuvanpidika*, a condition linked to Kapha, Vata, and Rakta involvement may be connected to Acne Vulgaris. For the treatment of such problems, several Shodhana and Shamana therapies are described. A 24-year-old female patient complained of acne over back that had been present for one year, accompanied by papules, pustules, sporadic pain, and post-inflammatory pigmentation. Based on clinical evaluation and Ayurvedic investigation the illness was identified as *Yuvanpidika*. Following a suitable clinical evaluation and informed permission, Raktamokshana was scheduled as part of the treatment along with internal medication *Manjisthadi kwatha*. Clinical indicators, including the number of papules and pustules, pain/tenderness, erythema, and post-inflammatory

pigmentation, were used to evaluate the patient both before and after treatment. The purpose of the case study is to demonstrate that Raktamokshana actively contributes to the treatment of recurrent Acne Vulgaris. It was found that the Ayurvedic Score based on the data of Ayurvedic clinical assessment of the treatment of various lesions, proposed in this study, as a function of treatment duration is more reliable than the Global Acne Grading Score obtained from the data of baseline value based on the assessment criteria of most severe lesions.

KEYWORD: Acne Vulgaris, Yuvanpidika, Raktamokshana, Jalaukavcharana.

INTRODUCTION

Acne Vulgaris is a chronic inflammatory condition that affects the pilosebaceous glands and is characterized by nodules, pustules, and papules on the face, as well as on the neck, back, and trunk. Although not dangerous, extreme cases might result in hyperpigmentation and scarring. The prevalence of Acne Vulgaris, which are primarily seen in teenagers and young adults, is reported to be between 35% and over 90% among teenagers.^[1] According to Ayurvedic scriptures, it is defined as Yauvanapidika or Mukhdushika in Kshudraroga, while *Acharya Shusruta* describes it as *Shalmalikantak* like facial eruptions that frequently appear as vitiation of Kapha, Vata, and Rakta Dushti.^[2]

Among the various treatment modalities described in Ayurveda, Raktamokshana (bloodletting therapy) is considered one of the most effective therapies for disorders involving Rakta Dushti. *Acharya Sushruta* emphasized Raktamokshana as an important purification procedure for eliminating vitiated blood and alleviating diseases caused by its vitiation.^[3] In dermatological disorders, particularly those with predominant involvement of Rakta and Pitta, Raktamokshana helps in reducing inflammation, improving local circulation, and restoring the normal physiology of the skin.

Among the different methods of Raktamokshana, Jalaukavcharana (leech therapy) is regarded as a gentle and effective procedure, especially for delicate areas such as the face. The bioactive substances present in leech saliva possess anti-inflammatory, analgesic, antimicrobial, and microcirculatory-enhancing properties, which may contribute to the therapeutic benefits observed in inflammatory skin disorders.^[4] Considering the significant role of Rakta Dushti in the etiopathogenesis of *Yuvanpidika* and the classical indication of Raktamokshana in diseases of Rakta, the present case study is undertaken to evaluate the role of Raktamokshana (Jalaukavcharana) in preventing the recurrence of Acne Vulgaris.

CASE PRESENTATION

A 24-year-old female patient came to Outpatient Department of the Department of Shalya Tantra of Mai Bhago Ayurvedic Medical College and Hospital with the complaint of recurrent acne over the back for one year. According to the patient, she was asymptomatic before one year. Then she gradually developed acne over the back. Initially, there were small acneiform eruptions, which gradually progressed into papular and pustular lesions. Her main complaints were: (1) itching over the upper back, (2) burning sensation, and (3) redness of skin. She has previously taken allopathic as well as homeopathic treatment, but did not get significant relief.

MATERIALS AND METHODS

1. Examination

The patient had no previous history of Polyendocrine Metabolic Ovarian Syndrome (PMOS), adverse drug reaction, and allergic reaction. On local examination, multiple scattered erythematous papular and pustular lesions were seen over the back, along with some post-inflammatory hyperpigmented macular lesions (see Fig. 1a). The lesions were polymorphic in nature, consisting predominantly of papules and pustules.

2. Assessment of Effects of Lesions and their Grading

Clinical evaluation of treatment of the patient was carried out using the following two independent grading systems: (1) Global Acne Grading System, and (2) traditional Ayurvedic clinical criteria.

Global Acne Grading System is an objective, validated modern dermatological measurement system, established by Doshi et al.^[6], to measure the clinical severity of acne vulgaris and monitor treatment efficacy over time. In this system the effect of treatment is calculated from a particular type of lesion and its location on different parts of the body. For the calculation of the *Global Acne Grading Score* (GAGS) the locations of lesions and their grades are given below:

Lesion Locations: (1) chin, (2) forehead and right or left cheek, and (3) chest and upper back.

Lesion Grades: (1) comedones i.e. blackheads and whiteheads, (2) papules i.e. small, inflamed red bumps, (3) pustules i.e. bumps with visible pus heads, and (4) nodules or cysts i.e. large, deep, solid, or fluid-filled bumps. The numbers (1) to (3) in the Lesion Locations above are known as *factors*, while the numbers (1) to (4) in the Lesion Grades are *grades* of the lesions.

The score for each area, called *Local Score*, is calculated using the formula:

$$\text{Local Score} = \text{Factor} \times \text{Grade (0-4)} \quad (1)$$

The Global Acne Grading Score is the sum of all local scores across all areas (forehead, right cheek, left cheek, nose, chin, chest/upper back). Since in the case of our patient the lesions were observed exclusively on the upper back, the global score is equivalent to the local factor of upper back (3). The acne severity was graded using the following criteria of Global Grading Score as: mild (1-18), moderate (19-30), severe (31-38), and very severe (>39).

The *Ayurvedic criteria*^[5] for assessment of pain and irritation by the lesions used in the study

are summarized below in Table 1. Subjective complaints and classical illness signs (Lakshanas) were independently rated using standardized Ayurvedic criteria for Yuvanpidika, assessing: Kandu, Vedana, Vivarnata, and Shotha.

Table 1: Ayurvedic Criteria of Lesions.^[5]

Kandu (Itching)	Vedana (Pain)	Vivarnta (Discoloration)	Shotha (Inflammation)
Occasional itching - 1	Pain on touch - 1	Reddish pink - 4	10 mm - 3
Continuous itching - 2	Pain without touch - 2	Reddish yellow - 4	5 mm - 2
No itching - 0	No pain - 0	Reddish brown - 4	2 mm - 1
		Red - 3	No swell - 0
		Black - 2	
		Black grey - 1	
		Normal - 0	

The *Ayurvedic Score*, proposed here was calculated using a formula similar to relation (1) for the calculation of Local Score for Global Acne Grading Score above, but here the sum of Local Scores of all lesions defined by their *Ayurvedic Criteria* given in Table 1 were taken into consideration.

3. Treatment Protocol

Based on the presentation and the Ayurvedic assessment of Acne Vulgaris it was Rakta Dushti involving all the three Doshas. Jalaukavcharana was the selected procedure for Raktamokshana which was performed in predetermined intervals. The traditional Ayurvedic principles of Purva Karma, Pradhana Karma, and Paschat Karma were followed during the operation. Throughout the course of treatment, the patient was observed for both systemic and local side-effects.

Jalaukavcharana was performed at 15-day intervals for a period of three months. This schedule was selected based on previous clinical studies on Acne Vulgaris that used repeated sittings at 15-day intervals, along with the need for repeated intervention and adequate clinical observation in this chronic inflammatory skin condition. After each sitting, local dressing with Jatyādi Taila,^[7] Śatadhauta Ghṛita, and Haridrā (turmeric powder)^[8] was applied to support healing and provide local antimicrobial care.

After inducing emesis from ingested blood, the leeches were stored properly for 15 days before being used again. *Manjisthadi kwatha* is given 20 ml twice a day with lukewarm water for 3 months. The anti-*P. acnes* and antioxidant activities of *Rubia cordifolia* provide pharmacological support for the inclusion of Manjiṣṭha as a component of Manjiṣṭhādi Kwātha

in Acne vulgaris. Its combination with Jalaukavacharaṇa was intended to provide complementary systemic and local therapeutic approaches in the management of acne-associated inflammatory pathology.^[9]

The clinical response was evaluated from changes in the quantity and shape of acne lesions, such as papules and pustules, erythema, post-inflammatory hyperpigmentation, and the emergence of new lesions. The therapeutic response during the 90-day treatment period was quantitatively assessed using two methods: (1) the Global Acne Grading System, determined by anatomical location factors and lesion severity grades, and (2) the cumulative score of Ayurvedic clinical parameters (Kandu, Vedana, Vivarnata, and Shotha) as described above; see also Table 1.

4. Clinical Outcome and GAGS Score Progression

The assessment of the response with treatment duration is described below.

Baseline (Day 0-15): Initially, the patient had active inflammatory lesions (papules and pustules) localized to the upperback. The initial GAGS at baseline was 9, based on the most severe lesion (pustule = Grade 3) and the anatomical factor of the upper back (3). This score was stable at the first follow-up (Day 15).

Intermediate Response (Day 30 to Day 60): Active pustules were observed to be completely resolved on Day 30. Only mildly inflamed papules (Grade 2) were left, decreasing the local score from 9 to 6, a 33.33% decrease in severity of the disease. This clinical improvement was stable and maintained through Day 45 and Day 60.

Final Outcome (Day 75 to Day 90): On Day 75, all inflammatory papules had resolved entirely, leaving only minimal non-inflammatory closed comedones (Grade 1). The local score declined to 3, corresponding to an overall 66.67% improvement from baseline. This therapeutic clearance was sustained through Day 90 with no relapse or emergence of fresh inflammatory lesions.

No adverse events or secondary hyperpigmentation/scarring were observed during the treatment period.

OBSERVATIONS AND DISCUSSION

As mentioned above, after three months of treatment acne showed significant improvements. Fig. 1a and b shows the observation of lesions before and after the treatment with

Jalaukavcharana for 90 days, respectively. The different types of observed lesions before and after the treatment with Jalaukavcharana are summarized in Table 2 whereas the evaluation of Ayurvedic criterion of lesions with the treatment duration is summarized in Table 3.



Figure 1: Observation of different lesions (a) before and (b) after treatment with Jalaukavcharana for 90 days.

Table 2: Results of treatment before and after 90 days.

Parameter	Before treatment	After treatment
Active papules	Multiple	Markedly reduced
Pustules	Multiple	Absent
Erythema	Mild–moderate	Reduced
New lesions	Recurrent	No new lesions
Post-inflammatory marks	Present	Faded
Skin texture	Uneven	Improved
GAGS score	9	3

It may be seen from Fig. 1 that most of the smaller lesions have disappeared whereas the larger ones have reduced in size enormously after the treatment. The post-inflammatory marks present in the initial stage have faded and the initial uneven skin texture has improved after treatment (see Table 2). However, as seen from Table 3, Shotha disappears first within the first 15 days of duration, followed by Kandu disappearing after 75 days, Vedana within 90 days but Vivarnata still persisting after this treatment duration. The assessment of different lesions with the treatment duration is shown in Fig. 2.

Table 3: Assessment of treatment with time.

Criteria	Treatment duration (Days)						
	0	15	30	45	60	75	90
Kandu	2	2	1	1	1	0	0
Vedana	2	2	1	1	1	1	0
Vivarnta	3	2	2	2	1	1	1
Shotha	1	0	0	0	0	0	0

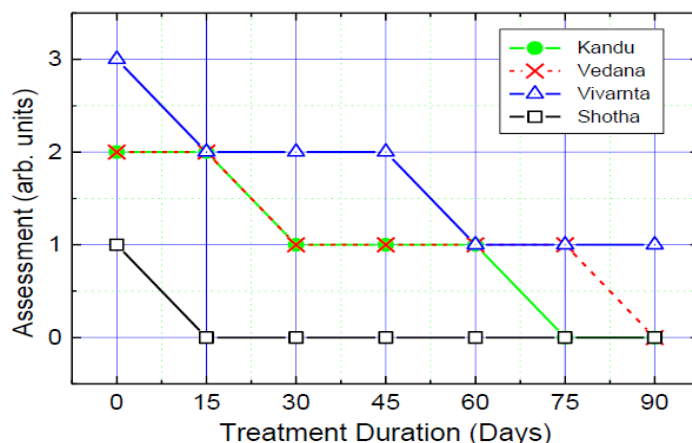


Figure 2: Ayurvedic Assessment of different lesions with treatment duration.

The values of the Global Acne Grading Score calculated from the data of baseline value of 9 based on the assessment criteria of most severe lesions are plotted in Fig. 3 as a function of treatment duration. However, Fig. 4 show the values of Ayurvedic Score calculated from the data of Table 3 of Ayurvedic clinical assessment of the treatment of various lesions as a function of treatment duration. It may be seen that the values of both of the grading scores decrease practically linearly with the treatment duration following the relations given in the insets of the figures. However, as judged from the regression coefficient R of the data of the two linear plots, the data of Fig. 4 represents the linear dependence better than those of Fig. 3, although both datasets demonstrate significant clinical reduction.

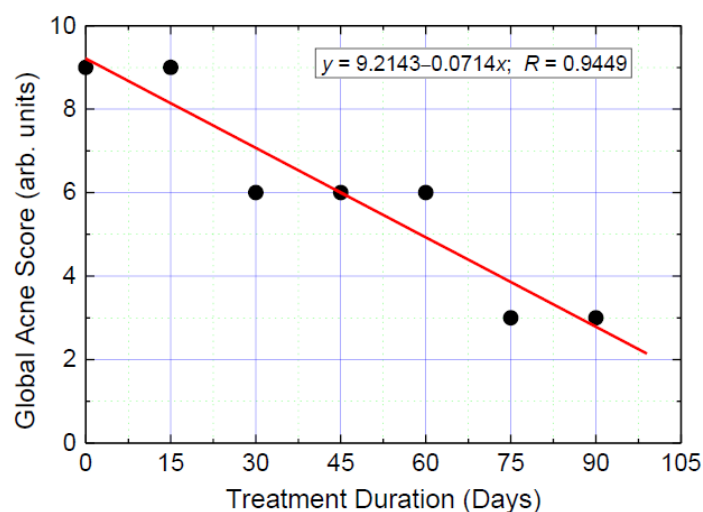


Figure 3: Plot of Global Acne Grading Score using the baseline score of 9 against treatment duration. Linear plot shows the best fit of the data following the dependence given in the inset.

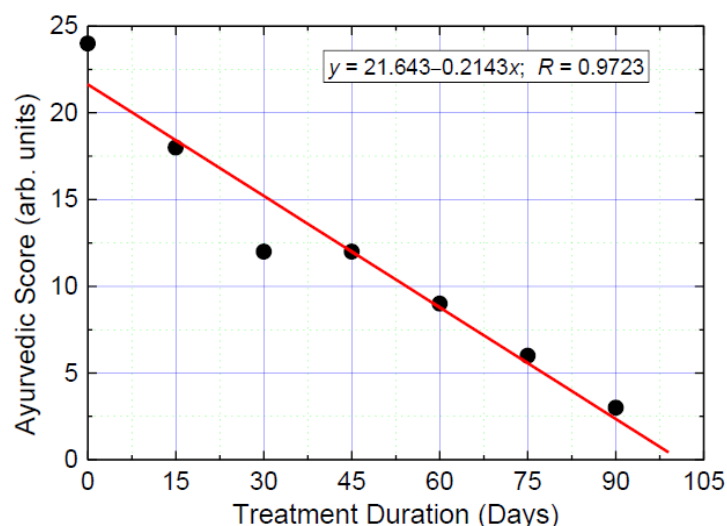


Figure 4: Plot of total Ayurvedic Clinical Score, calculated from the data of table 3, against treatment duration. Linear regression line shows the best fit of the data with the dependence given in the inset.

Despite clinical improvement, the recurrent nature of Acne Vulgaris suggests that the pathogenic factors are not entirely eradicated. According to Ayurveda, recurring Yuvanpidika episodes indicate ongoing Dosha-Dushya Sammurchana including Rakta, Vata, and Kapha. Recurrence is a common aspect of the disease because Rakta Dushti's persistent presence fosters the growth of new lesions. Acne Vulgaris's recurrence is an obvious clinical sign of ongoing underlying disease. Local treatments and symptomatic remedies frequently fail to produce long-lasting effect when vitiated Doshas are still deeply ingrained in the Rakta Dhatu. Rakta Dushti is a chronic condition that causes recurrent inflammation, hair follicle blockage, and the development of papules and pustules.^[10]

According to Ayurveda, Raktamokshana lessens the pathological burden of vitiated Doshas by directly eliminating Dushita Rakta from the afflicted site. The removal of impure blood enhances local tissue metabolism (Dhatu Agni) and aids in the restoration of Rakta Dhatu's natural physiological activities. Consequently, the potential to create lesions is reduced and the inflammatory process diminishes. Many bioactive substances, such as *hirudin*, *calin*, *bdellins*, *eglin*s, *hyaluronidase*, and *destabilase*, are found in medicinal leech saliva.^[11] Increased blood flow speeds up healing and lessens tissue congestion by making it easier to remove metabolic waste products and inflammatory mediators from the damaged tissue. This restoration of local homeostasis may contribute significantly to the prevention of recurrence.^[12]

The key ingredients of *Manjisthadi kwath* are Manjistha, Kustha, Kutaja, Guduchi, Musta, Nagara, Bharangi, Nimba, Vacha, Haridra, Daruharidra, Triphala, Patola, Katuka, Khadira, Chandana, Trivrit, Ativisha, Bakuchi, Karanja, Murva, Vidanga, Chitraka, Shatavari, Trayamana, Indervaruni, Sariva, Inderyava, Vasa, Mahadaru, Patha, Shyama, Danti,. It has tridoshaghna, Kapha-Pittahara property.^[13]

The absence of recurrence during the follow-up period observed in the present study supports the classical Ayurvedic principle that Shodhana therapies provide more sustained benefits than symptomatic management alone.^[5] By eliminating vitiated Rakta and correcting systemic Dosha imbalance, Jalaukavcharana appears to offer long-term disease control and improved quality of life. Therefore, the findings of the present study suggest that Raktamokshana may serve as an effective therapeutic and preventive modality in recurrent Yuvanpidika. However, larger controlled clinical trials with extended follow-up periods are required to further validate these observations and establish standardized treatment protocols.

CONCLUSION

This case study demonstrates promising results for Raktamokshana through Jalaukavcharana in managing Yuvanpidika (Acne Vulgaris) and delaying or preventing its recurrence. By addressing systemic and localized Rakta-Pitta imbalances, it achieves a lasting therapeutic effect. It is observed that the Ayurvedic Score based on the data of Ayurvedic clinical assessment of the treatment of various lesions, proposed in this study, as a function of treatment duration is more reliable than the Global Acne Grading Score obtained from the data of baseline value based on the assessment criteria of most severe lesions. However, because these observations are limited to a single case, absolute therapeutic efficacy cannot be definitively established. To validate these preliminary findings and formulate standardized treatment protocols across diverse skin types, large-scale controlled clinical trials with extended post-treatment follow-up periods are strictly warranted.

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