

## Assessment of the *Varnya* Effect of *Yavadi Lepa* and *Krishna Mrityika Lepa*: A Comparative Clinical Study

Dr. Anjali Verma<sup>1</sup>, Dr. Sasmita Tripathy<sup>2</sup>, Dr. Pradipkumar Suryawanshi<sup>3</sup>,  
Dr. Swaranjali Jangde<sup>4</sup>, Dr. Pallavi Shrivastava<sup>5</sup>

<sup>1</sup>PG Scholar, Dept. of Swasthavritta Evam Yoga, Shri N.P.A. Govt Ayurved College, Raipur, Chhattisgarh.  
[anjali34g@gmail.com](mailto:anjali34g@gmail.com), Mob- 9340656734, Orcid ID-0009-0006-7226-6723

<sup>2</sup>Reader, Dept. of Swasthavritta Evam Yoga, Shri N.P.A. Govt Ayurved College, Raipur, Chhattisgarh.  
[sasmita1980@gmail.com](mailto:sasmita1980@gmail.com), Mob-8763650383

<sup>3</sup>Professor & HOD, Dept. of Swasthavritta Evam Yoga, Shri N.P.A. Govt Ayurved College, Raipur, Chhattisgarh.  
[drpradipsuryawanshi@gmail.com](mailto:drpradipsuryawanshi@gmail.com), Mob-9423217667

<sup>4</sup>Lecturer, Dept. of Swasthavritta Evam Yoga, Shri N.P.A. Govt Ayurved College, Raipur, Chhattisgarh.

<sup>5</sup>PG Scholar, Dept. of Samhita Siddhanta, Shri N.P.A. Govt Ayurved College, Raipur, Chhattisgarh.  
[Pallavishrivastava1611@gmail.com](mailto:Pallavishrivastava1611@gmail.com), Mob- 9179050031

### ABSTRACT

**Background:** Facial discoloration and dullness are common cosmetic concerns that affect quality of life and self-confidence. *Ayurveda* describes *Vivarnata* as an imbalance of *Dosha*, affecting *Twacha* and *Varna*. Traditional topical applications such as *Yavadi Lepa* and *Krishna Mrityika Lepa* are mentioned for improving skin complexion and restoring normal skin tone.

**Objective:** To evaluate and compare the *Varnya* effect of *Yavadi Lepa* and *Krishna Mrityika Lepa* in the management of facial discoloration.

**Methods:** A comparative clinical study was conducted on 60 Volunteers fulfilling the inclusion criteria. The Volunteers were randomly divided into two groups of 30 volunteers each.

Group A was administered *Yavadi Lepa*, and Group B was administered *Krishna Mrityika Lepa* for a fixed duration of treatment. Evaluation was done on subjective parameters like *Rukshata*, *Prabha*, *Snigdha*, and *Shaithilya*. Statistical analysis was performed to determine the significance of the results.

**Results:** Both groups showed statistically significant improvements in facial complexion and associated symptoms. However, *Yavadi Lepa* showed comparatively better improvement in skin glow, complexion uniformity, and texture.

**Conclusion:** Both interventions were effective in improving facial discoloration, but *Yavadi Lepa* showed a comparatively superior *Varnya* effect. This study supports the potential role of *Ayurvedic* topical formulations in enhancing skin health naturally and safely.

**Keywords:** *Ayurveda*, *Varnya*, *Yavadi Lepa*, *Krishna Mrityika Lepa*, *Vivarnata*, *Twacha*.

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### INTRODUCTION

Healthy and glowing skin is considered an important indicator of physical as well as psychological well-being (*Bahyarog Marga*).<sup>1</sup>. In the modern era, factors such as stress, pollution, UV exposure, hormonal changes, unhealthy dietary habits, inadequate sleep, excessive use of cosmetics, etc., have increased the prevalence of skin discoloration and dullness. Facial discoloration not only affects physical appearance but may also reduce self-confidence and social comfort.

*Ayurveda* considers *Twacha*<sup>2</sup> as an important *Upadhatu* of *Mamsa Dhatu* and describes the concept of *Varna* in relation to overall health. The balanced state of *Dosha*, *Dhatu*, and *Agni* contributes to healthy complexion and skin luster. Any disturbance in these factors can lead to

*Vivarnata*, characterized by loss of natural complexion and radiance. Various *Ayurvedic* formulations have been mentioned to improve *Varna*, such as *Varnya Mahakashaya*,<sup>3</sup> etc., and *Lepas (Ritu Anushar)* for maintaining skin health. *Acharya Shusruta* mentioned *Mukhalepa*<sup>4</sup> in *Dincharya*.

Among these, *Yavadi Lepa* and *Krishna Mrityika Lepa* are traditionally used topical applications known for their cleansing, cooling, and complexion-enhancing properties. The present study was undertaken to clinically compare the efficacy of these two formulations in improving facial complexion.

### AIM AND OBJECTIVES

#### Aim:

A comparative clinical study on the *Varnya* effect of

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*Yavadi Lepa and Krishna Mrittika Lepa.*

## Objectives:

To evaluate the *Varnya* effect of *Yavadi Lepa* and *Krishna Mrittika Lepa*.

## MATERIALS AND METHODS

The present comparative clinical study was conducted on 60 Volunteers attending the outpatient department. Volunteers fulfilling the inclusion criteria were selected irrespective of gender, occupation, religion, and socioeconomic status. **Source of Data:** Volunteers are taken from Shri Khudadad Dunga Ji Ayurveda Hospital, Raipur (C.G.), who come under the criteria.

## Study

Open randomized comparative clinical study.

## Sample

60 Volunteers divided into two groups:  
 • Group A (30 patients) – *Yavadi Lepa* (*Yavadi Churna* + *Jal*)  
 • Group B (30 patients) – *Krishna Mrittika Lepa* (*Krishna Mrittika Churna* + *Jal*)

## Size:

## Criteria for selection of patients

### ➤ Inclusion criteria

- The age groups between the 18-30 year.
- Volunteers are selected irrespective of their gender, religion, occupation, marital status, socio- economic status, etc.
- The Volunteers are willing to participate and who give written consent.

### ➤ Exclusion criteria

- Volunteers are not willing for the study.
- The age groups are below 18yr and above 30yr.
- Volunteers suffering from any bacterial or fungal infection or any skin infestation, e.g., psoriasis, dermatitis, etc.
- Volunteers who are under medication with antifungals and antibacterials.
- History of drug- induced pigmentation, like phenytoin, etc.

### ➤ Withdrawal criteria

- If there is any adverse effect seen during the trial period.
- If volunteers do not want to continue the trail.

- Before the initiation of the trail, this trail's approval has been done by the IEC, & also the CTRI registration has been done.

## Study interventions

**Group A:** *Yavadi Churna* + *Jal* (External Application) for 60 days.

**Dose-**as per requirement (5-15gm)

**Thickness-**1/2 *Angula Pramana*

**Duration-**Upto drying (aprox-10min)

**Time-**Morning

**Group B:** *Krishna Mrittika Churna* + *Jal* (External Application) for 60 days.

**Dose-**as per requirement (5-15gm)

**Thickness-**1/2 *Angula Pramana*

**Duration-** Upto drying (aprox-10min)

**Time-**Morning

## Procedure for Lepa (*Yavadi Lepa/Krishna Mrittika Lepa*) preparation and application:

- Before applying, a patient was instructed to thoroughly clean their face to get rid of any debris or oils.
- Paste preparation: Depending on the specifications, fine powder (*Yavadi Churna/Krishna Mrittika Churna*) is combined with water or *Jal* till a smooth paste consistency is reached.
- Application Technique: Apply the paste upward, against the hair follicles, on the skin in the *Pratiloma Gati*.<sup>5</sup>
- Removal: After the paste has dried, gently wash the area to get rid of it.

**Duration of study** - 60 Days.

**Follow up** - Every 15 Days (Day 0, Day 15, Day 45, Day 60).

## Assessment

Patients were assessed before and after treatment based on:  
 Rukshata (Dryness)  
 Snigdghata (Oiliness)  
 Prabha (Luster)  
 Shaithilya (Wrinkles)

## Statistical

Data obtained were analyzed using appropriate statistical methods to evaluate the significance of therapeutic outcomes.

## Analysis:

**Table No. 1: Comparison of both groups done by the Mann -Whittney Test**

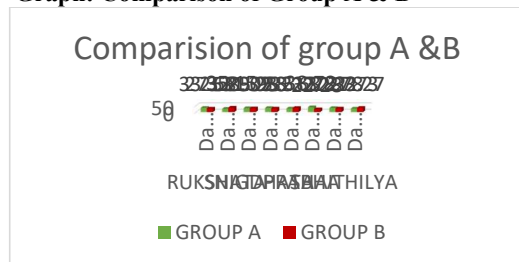
|                      | SY<br>MP<br>TO<br>MS | BT<br>VS<br>AT | GR<br>O<br>UP<br>A | GR<br>O<br>UP<br>B | Z-<br>VA<br>LU<br>E | P-<br>VA<br>LU<br>E      | RE<br>M<br>AR<br>K |
|----------------------|----------------------|----------------|--------------------|--------------------|---------------------|--------------------------|--------------------|
| Me<br>an<br>ran<br>k |                      | Da<br>y<br>BT  | 33.<br>32          | 27.<br>68          | -<br>1.2<br>52      | 0.2<br>11                | NS                 |
|                      | Ruk<br>shat<br>a     | Da<br>y<br>AT  | 25.<br>85          | 35.<br>15          | -<br>2.3<br>7       | 0.0<br>17(<br><0.<br>05) | S                  |
|                      | Sni<br>gdh<br>ata    | Da<br>y<br>BT  | 31.<br>05          | 29.<br>95          | -<br>0.2<br>55      | 0.8<br>05                | NS                 |

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|  |            |           |       |       |        |       |    |
|--|------------|-----------|-------|-------|--------|-------|----|
|  |            | Day<br>AT | 32.5  | 28.5  | -1.063 | 0.288 | NS |
|  | Prabha     | Day<br>BT | 28.32 | 32.68 | -1.129 | 0.259 | NS |
|  |            | Day<br>AT | 38.72 | 22.28 | -4.176 | 0.000 | HS |
|  | Shaithilya | Day<br>BT | 32.22 | 28.78 | -0.748 | 0.454 | NS |
|  |            | Day<br>AT | 27.73 | 33.27 | -1.463 | 0.143 | NS |

On statistical analysis at Day 60, P values for *Rukshata* (P=0.017) & *Prabha* (P=0.00) were noted, which showed statistically significance, & for symptoms *Snigdha* (P=0.288) & *Shaithilya* (P=0.143) were obtained, which showed that there was no statistical significance difference observed.

**Graph: Comparison of Group A & B**



### RESULTS

Both treatment groups showed improvement in subjective parameters after completion of therapy. Reduction in facial discoloration, improvement in glow, and enhancement in overall skin texture were observed in the majority of patients.

Group A treated with *Yavadi Lepa* showed marked improvement in complexion uniformity, skin smoothness, and radiance. Group B treated with *Krishna Mrittika Lepa* also demonstrated significant improvement, particularly in reducing dullness and improving skin freshness.

Comparative analysis indicated comparatively better results in Group A for overall *Varnya* effect. No major adverse reactions or complications were reported during the study period.

### DISCUSSION

The skin is continuously exposed to environmental and psychological stressors that adversely affect complexion and skin quality. According to *Ayurveda*, imbalance of *Dosha*, particularly *Pitta* and *Rakta* involvement, contributes to alterations in skin color and luster.

*Yavadi Lepa* has shown better results due to its probable *Kledahara*, *Twachya*, and *Varnya* properties, which help improve microcirculation and nourishment of the skin. Its ingredients may contribute to cleansing of the skin surface and restoration of normal complexion.

The following describes the characteristics of each *Dravya* of *Yavadi Lepa*:

*Yava*<sup>6</sup> is *Laghu*, *Ruksha Guna*, *Pitta-Kaphahar*, and is indicated as *Varnakari*; it is also *Madhura* and *Kashaya Rasa* prominent.

*Yashtimadhu*<sup>7</sup> has *Guru* and *Snigdha Guna*, *Vata-Pittashamaka*, and is dominated by *Madhura rasa*. It has *Varnya* properties and is recommended for skin conditions and *Varnavikara*.

*Lodhra*<sup>8</sup> contains *Laghu*, *Ruksha Guna*, and *Kashaya Rasa* and is also used to treat skin conditions (*Twakviakara*), and *Kapha-Pittashamaka* as well.

Two of the three ingredients in *Yavadi Lepa* are *Kashaya Rasa*, which causes *Stambhana* and gives the skin tonicity, enhancing its luster and making it look magnificent. All are *Sheeta Virya*, which pacifies aggravated *Pitta* and *Rakta Dhatu*, calming *Bhrajaka Pitta*.

Hyaluronic acid (HA) is a hygroscopic substance and is very important for proper skin hydration. The active ingredients of *Yava* (barley),  $\beta$ -glucans, have been shown to benefit skin health in several ways.<sup>9</sup> They inhibit the activity of enzymes such as hyaluronidase and collagenase, which are involved in the degradation of hyaluronic acid and collagen. These essential ingredients are found in the  $\beta$ -glucans to keep the skin moist, promote collagen, reduce wrinkles and give the skin a natural glow and luster.<sup>10</sup>

Extracts of *Glycyrrhiza glabra* (licorice) are also known for their beneficial effects on skin health. Ethanol extracts of licorice have shown improvement in skin hydration and elasticity. These effects are mainly due to the combined antioxidant, anti-inflammatory, and UV-protective properties of the herb.<sup>11</sup>

The skin-protective action of licorice is attributed to several phytochemicals, including triterpenes; saponins such as glycyrrhizin; and flavonoids.<sup>12</sup>

Liquorice is particularly valued for its skin-lightening and complexion-enhancing properties. Glycyrrhetic acid regulates melanin production, which helps to clear up the complexion and reduce hyperpigmentation.<sup>13</sup>

Liquiritin is another important constituent of licorice, which decomposes the existing melanin in the skin, thus resulting in a brightening effect. Furthermore, methanolic extracts of licorice rhizome exhibited a strong tyrosinase inhibitory activity (>75% inhibition) in human skin studies. Its effectiveness has been found comparable to well-known depigmenting agents such as kojic acid.<sup>14</sup>

In addition, compounds like glabrene, licochalcone A, and isoliquiritin further contribute to the inhibition of tyrosinase activity by modifying the enzyme's active site. Due to these significant antioxidant and depigmenting properties, liquorice extract is widely considered a safe and effective ingredient for cosmetic and skin-brightening formulations.<sup>15</sup>

**Krishna Mrityika Lepa** also demonstrated beneficial effects because of its cooling and detoxifying properties. It may help absorb excess oil, reduce impurities, and improve skin texture naturally. Mud packs have a cold moistness, that helps to relax and open the skin's pores. It improves blood circulation towards the surface of the skin, helps in the release of body heat, and helps in removing toxins and other harmful substances from the body.<sup>16</sup> Mud packs are good for improving the natural complexion of the skin and for helping to reduce acne, open the pores, and reduce dark circles around the eyes. They provide a soothing and cooling effect on the skin, promote cleansing, and help remove toxins and impurities.<sup>17</sup>

*Acharya Shusruta* also mentioned the anti-toxic effect of black soil. It is indicated in *Sotha* and *Arunshika* and mainly in *Kapha*, *Pitta*, and *Rakta Vikara* as a *Lepa*.

The findings of the study indicate that topical therapies can be effectively used for cosmetic as well as therapeutic purposes without major side effects. The holistic principles of *Ayurveda* emphasize maintaining balance within the body, which ultimately is reflected through healthy skin.

## CONCLUSION

The present study concludes that both *Yavadi Lepa* and *Krishna Mrityika Lepa* are effective in improvement of facial complexion and reduction of discoloration. However, *Yavadi Lepa* was found to be superior in *Varnya* effect in skin glow, complexion enhancement, and improvement in texture. The study highlights the importance of topical applications as safe, economical, and natural ways for healthy skin maintenance. Further studies with a larger sample size and advanced dermatological assessment tools may provide stronger scientific validation.

## REFERENCES

1. P. Kashinath shastri and Dr., Goraknath Chaturvedi, Charak Samhita, Vidyotini Hindi commentary, Chaukhambha Bharati Academy Varanasi, Reprint Edition 2013, Part 1, Shutra Sthana 11/48, Page 235.
2. Dr. Brahmananda Tripathi, Charaka Samhita Uttardha, Caraka-Chandrika Hindi Commentary, Chaukhambha Surbharati Prakashan, Varanasi, Edition 2012, Chikitsa Sthana 15/17, Page 554.
3. P. Kashinath shastri and Dr., Goraknath Chaturvedi, Charak Samhita, Vidyotini Hindi commentary, Chaukhambha Bharati Academy Varanasi, Reprint Edition 2013, Part 1, Shutra Sthana 4/8, Page 78.
4. Kaviraj Ambikadatta Shastri, Sushruta Samhita, Purvaardh, Ayurveda Tatva Sandeepika Hindi Commentary, Chaukhambha Sanskrit Sansthan, Varanasi, Reprint Edition 2021, Chikitsa Sthana 24/63, Page 136.
5. Kaviraj Ambikadatta Shastri, Sushruta Samhita, Purvaardh, Ayurveda Tatva Sandeepika Hindi Commentary, Chaukhambha Sanskrit Sansthan, Varanasi, Reprint Edition 2021, Shuta Sthana 18/4, Page 96.
6. Madanpal Nighantu by Dr Gyanendra pandey, chaukhambha Orientalia Varanasi, Edition 2016, chapter 10, page no 618.
7. Bhavaprakasa of Bhavamishra by Dr Bulusu Sitaram, chaukhambha Orientalia Varanasi, Edition 2015, Haritakyadivarga 6/146, page no 159.
8. Bhavaprakasa of Bhavamishra by Dr Bulusu Sitaram, chaukhambha Orientalia Varanasi, Edition 2015, chapter 6, page no 181.
9. Prabhajit K, Bikram S, Subodh K, Satwinderjeet K. In vitro evaluation on free radical scavenging activity of *Rubia cordifolia*. J Chin Clin Med., 2008; 3: 5. [Google Scholar]
10. Herbtme. [Last accessed on 2014 Feb 25]. Available from: <http://www.wordpress.com/2010/02/08/manjishtha-rubiocordifolia>.
11. Vaibhav S, Lakshaman K. Tyrosinase enzyme inhibitory activity of selected Indian herbs. Int J Res Pharm Biomed Sci., 2012; 3: 977-82. [Google Scholar]
12. Kumar GS, Jayaveera KN, Kumar CK, Sanjay UP, Swamy BM, Kumar DV. Antimicrobial effect of Indian medicinal plants against acne-producing bacteria. Trop J Pharm Res., 2007; 6: 717-23. [Google Scholar]
13. Vaibhav S, Lakshaman K. Tyrosinase enzyme inhibitory activity of selected Indian herbs. Int J Res Pharm Biomed Sci., 2012; 3: 977-82. [Google Scholar]
14. Tyrosinase inhibitors from crude drugs. Shirota S, Miyazaki K, Aiyama R, Ichioka M, Yokokura T Biol Pharm Bull, Feb, 1994; 17(2): 266-9. [PubMed]
15. Ahmad A, A njum FM, Zahoor T, Nawaz H, Dilshad SM. Beta glucan: a valuable functional ingredient in ffods. Crit Rev Food Sci Nutr., 2012; 52: 201-212. [PubMed][Google Scholar]

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16. Nature Cure by Dr. H. K. Bakharu 5<sup>th</sup> revised edition nationally acclaimed naturopathy, page 35-36.
17. <https://www.phytojournal.com/archives/2019/vol8issue3/PartBA/8-3-473-434>.