

COMPARATIVE EVALUATION OF THE EFFICACY OF *PALANDU BEEJA* (*ALLIUM CEPA* LINN) WITH HONEY *LEPA* VERSUS *ARJUNA TWAK* WITH HONEY *LEPA* IN THE MANAGEMENT OF *VYANGA* (MELASMA)' -A STUDY PROTOCOL

Dr. Rashmi Balage*

India.

Article Received on 15 August 2026,
Article Revised on 05 September 2026,
Article Published on 16 Sept. 2026,

<https://doi.org/10.5281/zenodo.22784424>

***Corresponding Author**

Dr. Rashmi Balage

India.



How to cite this Article: Dr. Rashmi Balage*. (2026). Comparative Evaluation of The Efficacy Of Palandu Beeja (*Allium Cepa* Linn) With Honey Lepa Versus Arjuna Twak With Honey Lepa In The Management of Vyanga (Melasma)' -A Study Protocol. World Journal of Pharmaceutical Research, 15(18), 519-527.

This work is licensed under Creative Commons Attribution 4.0 International license.

ABSTRACT

Introduction: Since the beginning, people have sought out and occasionally enjoyed what is referred to as "beauty." A healthy complexion and glowing skin serve to improve beauty. Ayurveda treats a variety of skin conditions. '*Kushta*' and '*Ksudrarogas*' are used to characterize them. Vyanga is one of the *kshudrarogas* that is referred to as '*Tanu*', '*niruja*', and '*Kshava*' mandalotpatti, a dark patchy darkening of the face tissue. The pathological disease known as *vyanga* is caused by the *vata* and *pitta dosha* vitiation pathophysiology. Several herbs are a rich supply of bioactive substances, without negative side effects, agents that could lighten the skin safely and effectively. *Palandu Beeja* (*Allium cepa* Linn) is one such drug mentioned by the Acharyas in the treatment of Vyanga in the form of external application as *lepa*. **Need for the Study:**

Modern treatment of Melasma is expensive and has a lot of adverse effects.^[13] So it is the need of time to find safe and cost-effective medicine from Ayurveda. *Palandu* (*Allium cepa* Linn) *beeja*, even though it has a potential and textual reference for its use in *Vyanga*.^[14,15] is yet to be screened. *Palandu* (*Allium cepa* Linn) being *vata-pitta* alleviating properties, is claimed as *Gaurata* and *Kantimata* (possessing enhancement of color and complexion of the facial skin) as per *Gadnigraha*.^[16] Hence, for the present study, *Palandu* (*Allium cepa*) seeds are selected for screening and reestablishing their specific effect in the management of *Vyanga*. Moreover, this drug is safe and cost-effective. **Aim:** The aim of this study is to

Comparative evaluation of the efficacy of *Palandu Beeja* (*Allium cepa* Linn) with Honey *Lepa* versus *Arjuna twak* with Honey *Lepa* in the management of *Vyanga* (Melasma).

Material and Methods: A clinical study will be conducted involving 64 participants who meet the inclusion criteria, divided equally into two groups of 32. The participants will undergo a pharmacological analysis before the intervention. Group A will receive an external application of *Arjuna twak* mixed with honey, while Group B will receive a similar application of *Palandu Beeja* (*Allium cepa* Linn) combined with honey. Both treatments will be administered once daily for a period of 30 days. After completing the treatment, follow-up evaluations will be conducted to assess the effectiveness of the treatments, with assessments scheduled on days 7, 14, 21, and 35 post-intervention. This study aims to compare the impact of the two herbal formulations on the specified outcomes and observe any changes over the course of the treatment and follow-up period. **Results:** The results will be derived by the observation of objective qualities. **Conclusion:** The study's conclusion will be reached using statistical data obtained from the collected data.

KEYWORDS: *Palandu Beeja* (*Allium cepa* Linn), *Arjuna twak*, *vyanga*.

INTRODUCTION

From the dawn of humanity, numerous treatments have been recommended for the enhancement of skin tone and facial complexion as physical attractiveness is of utmost importance in shaping a person's personality. These are mentioned in both Vedic literature and epics like the *Ramayana* and *Mahabharata*.^[1] The term "beauty" itself broadly encompasses good physical appearance, high moral character, and intellectual brilliance.

Synthetic cosmetics nowadays cause hypersensitivity symptoms such as rashes, burning, itching, irritation, and redness. Along with a good diet and the right daily care, the Ayurvedic Classical writings recommend external application and internal use of *dravya*, which is classified as *Varnya*^[2] for the improvement of facial skin's complexion.

One of its distinctive characteristics is the usage of Ayurvedic *Varnya* in both healthy and pathological circumstances, such as hyperpigmentation, scars, freckles, acne, dark circles, etc. Herbal cosmetics are increasingly popular worldwide to promote natural beauty and treat the diseases described above.

The disease is the sudden appearance of thin, painless, and bluish-black/brownish patches on a person's face.^[3] The *Vayu* is aggravated through anger (*Krodha*), Sorrow (*Shoka*), wrath & fatiguing physical exercise (*Aayas*) & surcharged with *pitta* and reaching the face quickly & giving rise to patches on the face.^[3]

According to Acharya Charak, it is *Raktapradoshaja* vikara^[4] Other text mentioned in *Kshudraroga*.^[5,6]

Samprapti Ghataka of Vyanga

Dosha	<i>Vayu (Udana, Vyana); Pitta (Bhrajaka)</i>
Dushya	<i>Dhatu -Rasa, Rakta; Upadhatu- Twak</i>
Srotas	<i>Rasavaha; Raktavaha</i>
Agni	<i>Jatharagni, Dhatavagni (Rasagni, Raktagni)</i>
Marga	<i>Shakhagata</i>
Sthana	<i>Twak</i>

The clinical features of Vyanga correlate with Melasma^[7]

Melasma, characterized by hyperpigmented patches with uneven shapes and colors ranging from light to dark brown or brown-gray, is the most frequently acquired condition affecting the face.^[8] It is most common in young women between the ages of 20 and 40, however, it can also strike boys at times.

The prevalence of melasma varies from 1.5% to 33.3%. Women are more likely than men to get melasma. It affects between 50% and 70% of pregnant women and between 8% and 29% of women taking O.C. tablets. Males exhibit 20.5% to 25.38%.^[9] Sun exposure, pregnancy, thyroid problems, genetics, and some medications, such as OCP, can all contribute to melasma.^[10]

Three classic Patterns

- 1) **Centrofacial**- Commonly it involves the forehead, cheeks, nose, upper lip, and chin
- 2) **Malar** – It affects the cheeks and nose.
- 3) **Mandibular** - between the jawline.^[11]

To treat it, dermatologists frequently advise using sunscreen and hypo-pigmenting medications including hydroquinone, azelaic acid, retinol, and kojic acid.^[12] They also advise laser therapy and chemical peels, but these treatments are costly and have a lot of side effects. Although skin grafting is also advised, the impoverished cannot afford this medical care.

The person is compelled to accept Ayurveda "as the best option" due to the intense stress that hyperpigmentation has caused. Finding a great herbal cure for this ailment is so essential.

METHODOLOGY

Ethical Consideration:- Following institutional ethical committee approval, the study will begin.(IEC) REF NO: (MGACHRC/IEC/Sep-2023/729) of Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod, Wardha, and CTRI registration number (CTRI/2023/12/060410).

The committee will oversee the trial and determine its outcome.

The Mahatma Gandhi Ayurveda College's Kayachikitsa OPD and IPD, the Hospital & Research Centre, Salod (H), and specialized periphery camps would be used to pick the patients exhibiting Vyanga signs.

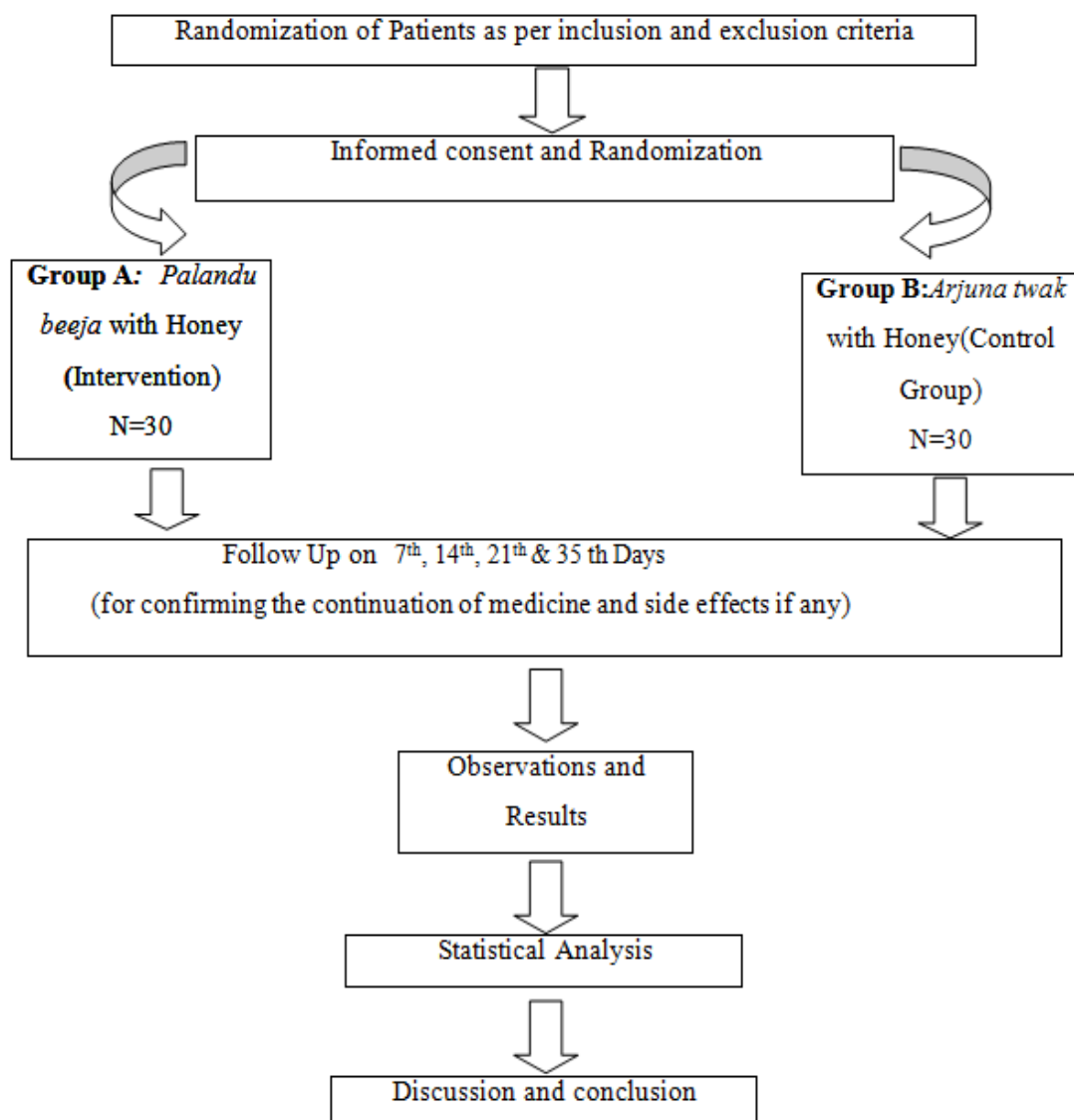
For the study, a total of 60 patients will be chosen. They will be split into two groups at random: group A will receive Palandu beeja with honey, while Group B will receive Arjuna twak with honey. Every baseline parameter will be documented in the research. The patients will get treatment for 30 days, with follow-up appointments scheduled for days 7, 14, 21, and 35.

Inclusion Criteria

1. Patients having Clinical signs and symptoms of *Vyanga* (Melasma) - Appearance of *Niruja* (Painless), *Tanu* (Thin) and *Shyava Varna Mandalas* (Bluish Black Patches)/ light brown – Dark brown
2. Patient willing to participate with written informed consent.
3. Patients of age between 20-40 yrs of either sex.

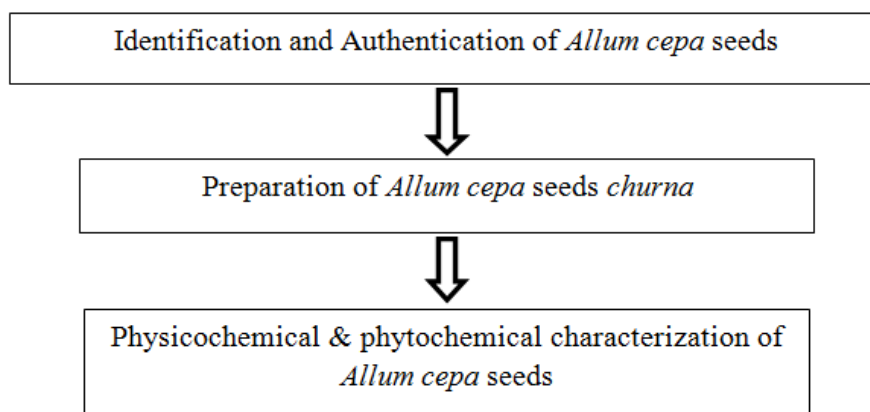
Exclusion Criteria

1. Cases of traumatic injury
2. Pregnant and lactating women.
3. Hyperpigmentation brought on by any documented instances of systemic illnesses such as Cushing's syndrome or Addison's disease
4. A person taking oral contraceptive pills.
5. Patient consistently exposed to sunlight
6. Person not willing to participate in Trial



CONSORT FLOW DIAGRAM

Intervention Description - We're going to gather mature seeds. scrubbed to get rid of debris and let air dry. After that, it will be broken up and powdered.



Interventional table

Group	Sample size	Intervention	Dose & Frequency and time	Anupan	Duration	Follow Up	After treatment follow-up
A	32	<i>Palandu</i> beeja <i>lepa</i> with honey	As per requirement once a day	-	30Days	On 7 th , 14 th , 30 th Day	On 35 th day,
B	32	<i>Arjuna</i> <i>twak</i> <i>lepa</i> with Honey	As per requirement once a day	-	30 Days	On 7 th , 14 th , 30 th Day	On 35 th day,

Recruitment of patients

From specialised outlying camps, the trial would be held at the Mahatma Gandhi Ayurved College Hospital and Research Centre in Salod, Wardha. The study will involve the recruitment of sixty patients in total.

Allocation

Open-labeled Randomized clinical trial

Enrolling the subjects, allocating the intervention, and registering an allocation sequence are all done by the lead investigation

Blinding

A single-blind superiority clinical trial

- **Assessment criteria-** Screening parameters: A person fulfilling the following criteria of *Vyanga* (Melasma):-

Sudden onset on facial skin, the appearance of Niruja (Painless), Tanu (Thin), and Shyava Varna Mandalas (Bluish Black/ brownish Patches).

1. Assessment based on signs & symptoms
2. Pre and post-changes will be measured with the help of a digital Fujifilm 64mp camera at two and a foot distance.
3. Von Luschan's color scale.

Assessment parameter- Reduction in symptoms & signs of *Vyanga* Such as Color, Distribution & Average area of pigment will be noted. The gradations Will be given to each symptom according to severity & result will be assessed based on shifting of gradation towards the left.

- Gradation will be given to each symptom such-
- **Colour-** (1-4): 1=pale brown, 2=brown, 3=blackish brown, & 4=black

- **Distribution- (1-7):** 1=Any one place ,2=any two place ,3= three place etc
- **Average area – (1-5):** 1=0-1cm,2=1-2cm,3=2-3cm ,4=3-4cm, 5=4cm & above
- **Von Luschan's color scale**

	1	10			19	28	
	2	11			20	29	
	3	12			21	30	
	4	13			22	31	
	5	14			23	32	
	6	15			24	33	
	7	16			25	34	
	8	17			26	35	
	9	18			27	36	

Von Luschan's color scale - This is a special test that will be carried out at every follow up i.e.at baseline, on the 7th, 14th and 30th Day

Von Luschan's color scale -Enhances complexion rating from 17-30

Subjective Parameter

Criteria for discontinuing or modifying allocated interventions

If an unforeseen event occurs, medication sensitivity manifests, or any other illness or issue arises, the subject will be removed from the study and get free therapy until the problem resolves. To evaluate and track medication adherence, we will track the quantity of medication taken, and the patient will be observed during treatment.

STATISTICAL ANALYSIS

The study will employ the Mann-Whitney test, the Wilcoxon signed-rank test, and the students' test for data analysis.

Gantt Chart (Quarterly)

Scholar/Investigator	Dr. Rashmi R.Balage							
Title	Comparative evaluation of the efficacy of <i>Palandu Beeja</i> (<i>Allium cepa</i> Linn) with Honey <i>Lepa</i> versus <i>Arjuna twak</i> with Honey <i>Lepa</i> in the management of <i>Vyanga</i> (Melasma)							
Steps		Q1	Q2	Q3	Q4	Q5	Q6	
Review of Literature								
Drug Authentication and collection								
Drug Preparation								
Enrolment of Patient & start of study								
Data Collection								
Statistical Analysis								
Thesis Writing								
Thesis Submission								

REFERENCES

1. Kumar R, Sharma V, Kumar D, Raj D, Kumar M. A HISTORICAL REVIEW ARTICLE ON VYANGA (MELASMA).
2. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Sutrasthana, Shadavirechanashataashriteeyadhyaya, 4/10, Edi Acharya Vidyadhara Shukla and Ravidatta Tripathi, Reprint, Chaukhamba Sanskrit Pratishthan, Delhi, 2013; 72.
3. Maharshi Sushruta. Samhita Samhita with Hindi Commentary Ayurvedatatva Sandeepika Commentary, Purvadrha and Uttarardha, Nidanasthana, 13/45,46, edi. Kaviraj Ambikadatta Shastri, Reprint, Chaukhamba Sanskrit Sansthan, Varanasi, 2009: 372-3.
4. Agnivesha, Charaka, Dridhabala, Charaka Samhita, Sutrasthana, Shadavirechanashataashriteeyadhyaya, 28/11-13, Edi Acharya Vidyadhara Shukla and Ravidatta Tripathi, Reprint, Chaukhamba Sanskrit Pratishthan, Delhi, 2013; 430.
5. Vagbhat. Ashtanga Hridaya with 'Vidyotini' the commentary of Kaviraj Atridev Gupta, Uttara tantra, 31/28, edi. Vaidya Yadunandan Upadhyay, Reprint edition, Chaukhambha Sanskrit Sansthan, Varanasi, 2005.
6. Madhava Nidana with "Madhukosha" & Vidyotini Commentary, by Shree Sudarshana Sastri, Chaukhambha Prakashana, Part-2, Reprint, 2008; 55: 177.
7. Pallavi, G., Gupta, K. L., Shreevathsa, M., Chate, V. A., & Balakrishna, D. L. Clinical evaluation of Varnya Gana Lepa in Vyanga (melasma). *Ayu*, 2015; 36(2): 151–156. <https://doi.org/10.4103/0974-8520.175543>.
8. Dharman BK, Sridhar S. Diffuse facial melanosis – An overview of etiology and dermoscopic findings. *J Skin Sex Transm Dis.*, 2020; 2(2): 86-93.

9. https://www.researchgate.net/publication/343426821_A_CONCEPTUAL_STUDY_OF_VYANGA_MELASMA_IN_AYURVEDA_WSR_SAUNDARYA_OF_SKIN_CLINICAL_TYPES, 2021; 2: 1.
10. Chang MW. Disorders of hyperpigmentation. In: Bologna JL, Schaffer JV, Cerroni L, editors. *Dermatology*. 4th ed. Amsterdam: Elsevier, 2018; 1119.
11. Sanchez, N. P., Pathak, M. A., Sato, S., Fitzpatrick, T. B., Sanchez, J. L., & Mihm, M. C., Jr. Melasma: a clinical, light microscopic, ultrastructural, and immunofluorescence study. *Journal of the American Academy of Dermatology*, 1981; 4(6): 698–710. [https://doi.org/10.1016/s0190-9622\(81\)70071-9](https://doi.org/10.1016/s0190-9622(81)70071-9); 4: 698-710.
12. Lapeere H, & Boone B, & De Schepper S, & Verhaeghe E, & Van Geel M, & Ongenaes K, & Van Geel N, & Lambert J, & Brochez L (2012). Chapter 75. hypomelanoses and hypomelanosis. Goldsmith L.A., & Katz S.I., & Gilchrist B.A., & Paller A.S., & Leffell D.J., & Wolff K(Eds.), *Fitzpatrick's Dermatology in General Medicine*, 8e. McGraw Hill. <https://accessmedicine.mhmedical.com/content.aspx?bookid=392§ionid=41138777-819-24>.
13. Rendon, M. I., & Barkovic, S. Clinical Evaluation of a 4% Hydroquinone + 1% Retinol Treatment Regimen for Improving Melasma and Photodamage in Fitzpatrick Skin Types III–VI. *Journal of drugs in dermatology: JDD*, 2016; 15(11): 1435–1441.1435–1441.
14. Chuneekar KC & Pandey GS. Commentator. Bhavaprakash Nighantu of Bhavamishra. Reprint, Chaukhambha Bharati Academy, Varanasi, 2004; 135-6.
15. Yadhavaji T. Dravyaguna Vidnyanam, 5th edi. Nagpur: Sureshkumar Sharma Publishers, 2001; 362-3.
16. Vaidya Shree bapalal. Nighantu Aadarsha Reprint, Chaukhambha Bharati Academy, Varanasi, 2004; 135-6-626.
17. Rashmi Balage, Jaymala Jadhav, Minal tadke, Comparative evaluation of efficacy of *Palandu Beeja (Allium cepa* Linn) with Honey *Lepa* versus *Arjunatwak* with Honey *Lepa* in the management of *Vyanga* (Melasma)' <https://doi.org/10.5281/zenodo.10223974>