ISSN: 2322 - 0902 (P)
ISSN: 2322 - 0910 (O)

International Journal of Ayurveda and Pharma Research

Research Article

COMPARATIVE STUDY TO EVALUATE THE EFFICACY OF *ASHWAGANDHA GHRITA NASYA* AND *ASHWAGANDHA KWATHA PANA* IN THE MANAGEMENT OF HYPOTHYROIDISM- A RANDOMIZED TRIAL PROTOCOL

Vandana Hardasbhai Tarkhala[1]*, Arun Gupta[2]

*[1]PG Scholar, [2]Professor, HOD, Panchakarma Dept., Ch. Brahma Prakash Ayurved Charak Sansthan, New Delhi, India.

Article info

Article History:
Received: 19-08-2026
Accepted: 26-09-2026
Published: 04-10-2026

KEYWORDS:
Hypothyroidism, *Nasya, Ahwagandha.*

ABSTRACT

In Ayurveda, hypothyroidism cannot be directly correlated with any single *Vyadhi*. However, its clinical manifestations, including puffiness of the face and eyelids, edema, dry and coarse skin, breathlessness, constipation, lethargy, myalgia, menstrual irregularities, and hair fall, resemble the features of *Bahu Doshavastha, Rasavaha Srotodushti*, and *Mandagni*. **Objective:** To compare the efficacy of *Ashwagandha Ghrita Nasya* and *Ashwagandha Kwatha Pana* in the management of hypothyroidism. **Methods:** This randomized comparative clinical trial will be conducted in the Outpatient Department (OPD) and Inpatient Department (IPD) of the Department of Panchakarma, Ch. Brahm Prakash Ayurved Charak Sansthan (CBPACS), New Delhi. A total of 56 participants with hypothyroidism will be randomly allocated into two groups. Group A will receive *Ashwagandha Ghrita Nasya* once daily for 7 consecutive days, followed by a 7-day interval. This treatment schedule will be repeated for four cycles (days 1–7, 15–21, 29–35, and 43–49). Group B will receive *Ashwagandha Kwatha Pana* (40ml) once daily on an empty stomach for 60 consecutive days. Outcome assessment will be performed using thyroid function tests (T3, T4, and TSH) and clinical symptom scores at baseline (day 0) and at the end of treatment (day 60). **Expected Results:** The study is expected to demonstrate improvement in thyroid function test parameters and reduction in the clinical symptoms of hypothyroidism in both groups. *Ashwagandha Ghrita Nasya* is hypothesized to show comparatively greater therapeutic benefit. **Conclusion:** This study is expected to provide clinical evidence regarding the comparative effectiveness of *Ashwagandha Ghrita Nasya* (*Panchakarma* intervention) and *Ashwagandha Kwatha Pana* (*Shamana Chikitsa*) in the management of hypothyroidism. The findings may contribute to strengthening the evidence base for integrative Ayurvedic management of hypothyroidism.

INTRODUCTION

Hypothyroidism is known as a silent disease since early symptoms can be so subtle that no one can realize something is wrong. The symptoms that may present in this condition are puffiness of the face and eyelids, edema, dry and coarse skin, breathlessness, constipation, lethargy, muscle ache, disturbance in the menstrual cycle, hair fall, etc. If untreated, symptoms become more pronounced and intense potentially leading to disorientation and mental issues, respiring difficulties, heart problems, fluctuation in body temperature. According to a projection from various studies on thyroid disease, in India, 42 million people are suffering from thyroid disorders, out of which hypothyroidism is most common with a prevalence of (5.4%).[1] It is more prevalent among females with a male-female ratio of 1:6.[2] India has a high prevalence of hypothyroidism, which affects one in ten people.[3] The prevalence of overt hypothyroidism and subclinical hypothyroidism were identified at 2.34% and 9.54%.[4]

In Ayurveda, we can't find a single entity with all the symptoms of hypothyroidism however the clinical presentation can be correlated to *Bahudoshavastha* like *Avasad* (depression), *Klama* (fatigue), *Sthaulya* (obesity), *Alasya* (malaise), *Dorbalya* (weakness), *Avipaka* (indigestion), *Shrama* (exertion),

Access this article online

Quick Response Code

https://doi.org/10.47070/ijapr.v14i9.4352

Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

Klaibya (infertility),[5] and *Doshaprakopa- vastha*[6] which are potentially *Purvaroop* of many disorders but the similarity in clinical manifestation of this disease can be correlated to *Galaganda* that is *Mushkavat Avalambate Gale* (hanging at the throat like scrotum).[7]

Conventional management provided by using levothyroxine; however, prolonged levothyroxine use is associated with adverse effects.

Hypothyroidism displays itself in a variety of ways, affecting every organ and system in the human body. It makes the affected individual dependent on hormonal supplementation for the rest of his life. Studies showed that hormonal replacement therapy (HRT) i.e. levothyroxine sodium only increases the level of thyroid hormone in blood[8] but it does not treat the root cause of the disease i.e. imbalance of *Agni* and autoimmunity. Excessive thyroid hormone replacement can cause serious long-term metabolic complications (e.g. accelerated osteoporosis[9], drug intolerance, hypersensitivity[10], and the danger of acute and chronic complications). Hence it is more important to search for safe, effective, and affordable remedies in Ayurveda to restrain the root cause of the disease. As one of its *Nidan* is stress and in ayurveda also it is mentioned that *Manasik rog* coverts into the *Shareerika* and vice versa. And the *Vyadhi Galgand* is the *Urdvajatrugat Vyadhi* in which *Nasya* is best suitable.[11] The drugs administered through the nose stimulate the higher centers of the brain which shows action on the regulation of endocrine and nervous system function.[12] And it is proved that *Ashwagandha* has a significant role in treatment of hypothyroidism.[13] There for evaluating the comparative efficacy of *Ashwagandha Ghrita Nasya* and *Ashwagandha Kwath Pana* is clinically relevant to establish evidence based *Panchakarma* management for hypothyroidism.

AIM

To evaluate the efficacy of *Ashwagandha Ghrita Nasya* in the management of hypothyroidism in comparison to *Ashwagandha Kwatha Pana*.

OBJECTIVES

1. To evaluate the efficacy of *Ashwagandha Ghrita Nasya* in the management of hypothyroidism.
2. To evaluate the efficacy of *Ashwagandha Kwatha Pana* in the management of hypothyroidism
3. To evaluate the comparative efficacy of *Ashwagandha Ghrita Nasya* and *Ashwagandha Kwatha Pana* in the management of hypothyroidism.

Hypothesis

- *Ashwagandha Ghrita Nasya* is more efficacious than *Ashwagandha Kwatha Pana* in the management of hypothyroidism.
- Null hypothesis: *Ashwagandha Ghrita Nasya* is not more efficacious than *Ashwagandha Kwatha Pana* in the management of hypothyroidism.

MATERIALS AND METHODS

Study design- Randomized active control open-label clinical study.

Sampling method: Simple randomization using a computer-generated table.

Selection of the study subjects- Patients of hypothyroidism fulfilling the inclusion criteria will be selected from OPD and IPD of the PG Department of Panchakarma, Ch. Brahm Prakash Ayurveda Charak Sansthan, New Delhi.

Study setting- OPD & IPD of PG Department of Panchakarma, CBPACS.

Sample size calculation- Calculated from Open epi calculator

Confidence Interval- 95%

Power– 80

Study Duration: 60 days

Timeline of Assessments: 1st day and 60th day

Inclusion Criteria

1. Patient willing to participate in the study with written and informed consent.
2. Patients with 6-10 IU TSH when peripheral thyroid hormone levels are within normal reference laboratory range.
3. Patients having clinical features of hypothyroidism.
4. Either fresh subjects or those pre-diagnosed with hypothyroidism who are on regular thyroxine (up to 25mcg).
5. Patients between the ages of 20 to 50yrs.

Exclusion Criteria

1. Pregnant or lactating women.
2. Secondary hypothyroidism.
3. Patient having any other major complicated disease like diabetes mellitus, cardiac disease, tuberculosis, AIDS, etc.
4. Patients contraindicated for *Nasya Karma*.

Withdrawal Criteria

1. Patients willing to discontinue in between will be allowed to cease and will be replaced.
2. If any acute illness or complications develop, the patient will be treated accordingly and will be excluded from the study.

Sample Size

Calculated from Open EPI calculator Confidence Interval - 95% Power - 80%.[14] Reference of Standard deviation is taken from an earlier study on "Evaluation of the *Tilataila Shirodhara* efficacy in *Galaganda* (hypothyroidism)" a total of 56 participants were required (28 per group).

Recruitment

Participants will be recruited from the OPD and IPD of the Department of Panchakarma, CBPACS.

Eligible participants will be screened and enrolled after written informed consent.

Randomization and Allocation

Participants will be randomized into two groups using computer-generated simple random sampling in a 1:1 ratio. Allocation concealment will be maintained using sequential allocation codes.

Blinding

Blinding was not feasible in the present study because the two interventions were inherently different in their mode of administration. One intervention involved *Nasya*, a *Panchakarma* procedure, whereas the other involved *Ashwagandha Kwatha Pana*, a form of *Shamana Chikitsa* administered orally. Owing to these distinct therapeutic approaches, neither the participants nor the investigators could be blinded to the allocated intervention.

Interventions

Group A: *Ashwagandha Ghrita Nasya*

Participants received *Nasya* with *Ashwagandha Ghrita* once daily in the morning for 7 consecutive days, followed by a 7-day interval. This treatment schedule was repeated for four cycles, i.e., from day 1–7, day 15–21, day 29–35, and day 43–49.

Before the administration of *Nasya*, *Purvakarma* was performed. Gentle *Abhyanga* was carried out over the scalp, face, neck, shoulders, and upper back for 10–15 minutes. This was followed by *Mridu Svedana* using *Dashamoola Kwatha* until adequate perspiration was observed over the forehead. Thereafter, *Ashwagandha Ghrita* was warmed and poured into a *Gokarna Yantra*. Six *Bindu* of the medicated *Ghrita* were instilled into each nostril. After the medicine reached the throat, the participant was instructed to spit out the accumulated secretions without swallowing. Subsequently, *Dhumapana* was performed as a part of the *Paschat Karma*.

Group B: *Ashwagandha Kwatha Pana*

Ashwagandha Kwatha was prepared by taking 10gm of coarse powder of *Ashwagandha* root in a clean stainless-steel vessel and adding 160ml of potable water. The mixture was heated over mild to moderate flame with intermittent stirring and boiled until the volume was reduced to one-fourth of its original volume (approximately 40ml). The decoction was then removed from heat, allowed to cool slightly, and filtered through a clean muslin cloth or sieve. The filtered decoction (*Kwatha*) was collected in a clean container and administered in a dose of 40ml once daily on an empty stomach.

Study Drug

Ashwagandha Ghrita: *Ashwagandha Ghrita* was procured from a GMP-certified pharmaceutical company. It was prepared in accordance with the classical reference described in *Chakradatta* (*Balroga Chikitsa*)[14] and the Ayurvedic Pharmacopoeia of India (API) standards, using *Ashwagandha* (Withania somnifera), *Go-Ghrita* (cow's ghee), and *Go-Dugdha* (cow's milk) as the principal ingredients.[9]

Outcome Measures

The primary outcome measure was the change in thyroid function test parameters (thyroid profile), as determined by comparing the pre-treatment and post-treatment blood reports.

Assessment Criteria Subjective Criteria

Signs and symptoms of hypothyroidism as puffiness of the face and eyelids, edema, dry and coarse skin, breathlessness, constipation, lethargy, muscle ache, nature of the menstrual cycle, and hair fall.

Interpretation

Subjective Parameters	Grading
Puffiness of Face and Eyelids	
Absent	1
Occasional	2
Daily, periorbital edema/puffiness in the morning, relieved in the later part of the day.	3
Persistent	4
Oedema	
Absent	1
Oedema over lower/upper extremities	2
Oedema over both extremities	3
Oedema all over the body	4
Dry and Coarse Skin	
No dryness	1
Dryness after bath only	2

Dryness overall body but relieved by oil application	3
Dryness is not even relieved by oil application	4
Breathlessness	
Absent	1
Occasionally, only after a strenuous workout	2
Even on climbing upstairs, but relieved by rest	3
Felt in routine work-bathing, changing clothes	4
Constipation	
Once a day/ soft stool/no	1
Once in two days/firm stool/occasionally, bearable	2
Once in three days/ hard stool/ frequently, severe	3
Once in more than three days/ very hard stool	4
Lethargy	
Doing work satisfactorily with proper vigor on time	1
Doing work without desire, unsatisfactorily, but in time	2
Doing work without desire, unsatisfactorily, with a lot of mental pressure and not in time.	3
Not starting any work in his/her responsibility, doing little work very slow or does not have any initiation and not want to work even after pressure.	4
Muscle Ache	
Normal	1
Relieved by rest	2
Not relieved by rest but relieved by external application	3
Required external application and internal medication	4
Nature of Menstrual Cycle	
Regular	1
Mildly irregular	2
Noticeable irregular cycles/flow changes	3
Menopause/hysterectomy	4
Hair Fall	
Normal hairfall (<50-100/day)	1
Slight increase	2
Moderate hairloss, thinning visible	3
Severe hair fall, significant thinning/ bald patches	4

Data Collection and Management

All clinical data will be recorded in structured case record forms. Confidentiality will be maintained by assigning unique participant IDs. Data will be stored securely and preserved according to institutional policy.

Statistical Analysis Plan

Within-group comparisons will be analyzed using paired t-test or Wilcoxon signed-rank test. Between-group comparisons will be analyzed using unpaired t-test or Mann–Whitney U test. Statistical significance will be considered at $P < .05$.

Ethics Approval and Consent

Ethical approval has been obtained from the Institutional Ethics Committee, CBPACS, New Delhi. Written informed consent will be obtained from all participants. Participation will be voluntary and withdrawal will be permitted at any stage.

Safety Monitoring

All adverse events will be documented and managed according to institutional guidelines. Participants developing severe adverse events will be withdrawn and provided appropriate medical management.

Expected Results

Both interventions are expected to reduce serum TSH levels and improve the clinical symptoms of hypothyroidism. However, *Ashwagandha Ghrita Nasya* is hypothesized to produce superior therapeutic outcomes, as the drug is administered through the Nasya route, which is considered in Ayurveda to be the

gateway to the *Shiras* (head), as described by the classical principle "*Nasa Hi Shirso Dwaram*."[15] Furthermore, *Nasya* is the treatment of choice for *Urdhvajatrugata Vyadhis* (diseases affecting the region above the clavicle).[16] Therefore, administration of *Ashwagandha Ghrita* through the nasal route is believed to facilitate its action on the structures of the head and may result in greater therapeutic benefits and improved clinical outcomes in patients with hypothyroidism.

DISCUSSION

This randomized comparative clinical trial is designed to generate evidence comparing *Nasya* (*Panchakarma* therapy) and *Ashwagandha Kwathapana (Shaman chikitsa)* for hypothyroidism. The findings may strengthen integrative and evidence-based Ayurvedic management approaches for Hypothyroidism.

Dissemination Plan

Results will be disseminated through peer-reviewed journal publication and scientific presentations.

REFERENCES

1. http://www.japi.org/thyroid_special_jan_issue_2011/article_01.html
2. Fatourechi, V. Subclinical Hypothyroidism: An Update for Primary Care Physicians". Mayo Clinic procedings, (2009), 84 (1): 65–71. doi:10.4065/84.1.65. PMC 2664572, PMID19121255
3. A.G. Unnikrishnan, Sanjay Kalra, Rakesh K Sahay, Ganapathi bantwal, Methew John, Neeraj Tewari. Prevalence of hypothyroidism in adults: An epidemiological study in eight cities of India, Indian Journal of Endocrinology and Metabolism, 2013 Jul-Aug; 17(4): P. 647–652
4. Rajeswari Anandhan, Chitra Devi vinayagam. A Study on Prevalence of Thyroid Disorders in Pregnancy and its Impact on Maternal and Fetal Outcomes in a Tertiary Care Centre in Villupuram. Rajeswari Anandhan et al JMSCR Volume 11 Issue 02 February 2023. 160-173.
5. Pt. Kashinath Shastri, The Charak Samhita of Agnivesa, Part 1, 2020, Varanasi, Chaukhambha Bharti Academy, Page no. 278
6. Dr. Ambikadatta Shastri Sushrut Samhita, Purvardh, 2020, New Delhi, Chaukhambha Publication, Page no. 119
7. Dr. Ambikadatta Shastri, Sushrut Samhita, Purvardh, 2020, New Delhi, Chaukhambha Publication, Page no.356
8. Tripathi KD, Medical Pharmacology, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi, Reprint VI edition, 2009, P248
9. Nuovo J, Ellsworth A, Christensen DB, Reynolds R. Excessive thyroid hormone replacement therapy, The Journal of the American Boar of Family Practice, 1995 Nov Dec; 8(6): 435-9.
10. Fujikawa M, Okamura K, Sato K, mizokami T, Shiratsuchi M, Fujishima M. Increased sensitivity to thyroid hormone replacement therapy followed by hyponatremia andeosinophilia in a patient with long-standing young-onset primary hypothyroidism, Journal of endocrinological investigation, 1999 Jun; 22(6): 476-80.
11. Agnivesha, Charaka, Charaka Samhita edited by Vaidya Yadavaji Trikamji Acharya Chaukhamba Surbharati Prakashana, Varanasi 2011: Charaka Siddhisthan 2/22.
12. Probable Mode of Action of Nasya- An Overview , Smita Lokhande, Dept. of Kriyasharir,ADAMC, Ashte, Dist- Sangli, Maharastra, India https://www.researchgate.net/profile/Smita Lokhande/publication/321804859_Probable_mode_of_action_of_nasya-an_overview/links/5a3371afa6fdcc9b2d781d98/Probable-mode-of-action-of-nasya-an-overview.pdf
13. Lakshmi-Chandra Mishra Scientific Basis for the Therapeutic Use of Withania Somnifera (Ashwagandha): A Review. Alternative Medicine Review. Volume 5 Number 4 2000. 334-346
14. Tripathi I. Balroga Chikitsa. In: Chkradatta. Varanasi: Chaukhambha Sanskrita Bhawana; 2010. P.400
15. Vagbhaṭa. Ashtanga Hrdaya, Sutrasthana, Nasyavidhi Adhyaya, 20/1.
16. Agnivesha, Charaka, Charaka Samhita edited by Vaidya Yadavaji Trikamji Acharya Chaukhamba Surbharati Prakashana, Varanasi 2011: Charaka Siddhisthan 2/22.

Cite this article as:
Vandana Hardasbhai Tarkhala, Arun Gupta. Comparative Study to Evaluate the Efficacy of Ashwagandha Ghrita Nasya and Ashwagandha Kwatha Pana in the Management of Hypothyroidism- A Randomized Trial Protocol. International Journal of Ayurveda and Pharma Research. 2026;14(9):121-125.
https://doi.org/10.47070/ijapr.v14i9.4352
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Vandana Hardasbhai Tarkhala
PG Scholar,
Dept. of Panchakarma
Ch. Brahm Prakash Ayurved Charak Samsthan, New Delhi.
Email:
vandanatarkhala5768@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.