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

International Journal of Ayurveda and Pharma Research

Research Article

EFFECTIVENESS OF *VIYAKKIRATHI KASHAYAM* IN THE TREATMENT OF *AZHAL THALAI NOKKADU* (SINUSITIS)

Supriya K S[1]*, Uma Kalyani S[2]

*[1]PG Scholar, [2]Lecturer grade II, Department of Pothu Maruthuvam, Government Siddha Medical College, Palayamkottai, Tirunelveli, Tamil Nadu, India.

Article info

Article History:
Received: 13-01-2026
Accepted: 21-02-2026
Published: 26-03-2026

KEYWORDS:
Sinusitis, *Azhal Thalai Nokkadu, Viyakkirathi Kashayam*, ADSS Score.

ABSTRACT

Sinusitis or inflammation of sinus mucosa, is a very common complaint encountered in clinical practice and affects individuals of all age groups. The signs and symptoms of *Azhal Thalai Nokkadu* described in siddha text *Yugi Vaithiya Chinthamani* including lacrimation, nasal obstruction, headache, rhinorrhea, cough, and loss of taste closely correlate with clinical feature of sinusitis. This study aims to evaluate the effectiveness of the siddha formulation *Viyakkirathi Kashayam* in the treatment of *Azhal Thalai Nokkadu* (sinusitis), using the Adelaide Disease Severity Score. **Method**: This was a descriptive case series conducted on 20 patients diagnosed with sinusitis over a period of 30 days. Ethical approval was obtained from the Institutional Ethics Committee (IEC No: GSMC-XIII IEC-Br-I/09/24.05.2024). The study was prospectively registered in the Clinical trials Registry of India (CTRI Reg No: CTRI/2024/06/069416). The trial intervention consisted of *Viyakkirathi Kashayam* 50ml twice daily along with *Thippili Chooranam* (800mg) was given for 30 days. **Result:** Biostatistical analysis of Adelaide Disease Severity Score (ADSS) before and after treatment was performed using paired t-test n SPSS version 21. The trail intervention demonstrated a statistically significant reduction in ADSS scores following treatment ($p<0.001$). No adverse effect of the trial drugs were observed during the study period. **Conclusion:** The findings suggest that *Viyakkirathi Kashayam* is significantly effective in the management of sinusitis.

INTRODUCTION

Sinusitis is defined as inflammation of the mucosal lining of the air-filled cavity surrounding the nasal cavity, known as the paranasal sinuses, along with inflammation of the nasal mucosa. It is therefore more accurately termed rhinosinusitis. The maxillary, frontal, ethmoid and sphenoid sinuses are air- filled spaces that help humidify air enhance voice resonance reduce skull weight and support immune defense. Obstruction of sinus drainage due to infection, allergy or structural abnormalities leads to mucus accumulation and subsequent inflammation. It is broadly classified into acute (Lasting less than 4 weeks), subacute (4-12 weeks), chronic more than 12 weeks) forms[1].

Access this article online

Quick Response Code

https://doi.org/10.47070/ijapr.v14i3.4065

Sinusitis is most frequently caused by viral upper respiratory tract infection, while bacterial infections may complicate some cases. Clinically sinusitis presents with nasal congestion, purulent nasal discharge, facial pain, reduced sense of smell, ana occasionally fever or cough. The prevalence of this disease shows a significant increase during the winter and spring seasons[2]. Sinusitis is highly prevalent in India, with an estimated 134 million individuals affected by chronic sinusitis, representing approximately one in eight people. It is reported to be more widespread than diabetes or asthma, with urban prevalence ranging between 5-15%. Furthermore, chronic rhinosinusitis has been reported to have a prevalence of 46.1% in northern India[3]. The Siddha concept of *Azhal Thalai Nokkadu* is considered comparable to sinusitis based on clinical observation and symptom correlation. In Siddha literature, *Azhal Thalai Nokkadu* is described in *Yugi Vaithiya Chinthamani (Vatha noi padalam)*[4]. Exposure to smoke toxic fumes and strong fragrances, prolonged

exposure to intense sunlight, disturbances in sleep pattern, somnolence, exposure to rain water, infective conditions, suppression of fourteen *Vegas* (particularly tear) which increase internal body heat serve as precipitating factors for this disease. In the Siddha system of medicine, several unique therapeutic formulations are described for the management of *Azhal Thalai Nokkadu* (sinusitis). One such formulation, *Viyakkirathi Kashayam* is regarded as an economical and dependable therapeutic intervention[5].

Viyakkirathi Kashayam

Book reference: *Anuboga vaithiya brahma rahasiam* part- 3

Author: Dr. P.S. Kuppusamy Mudhaliyar

Year of Publication: 2012

Page No:193.

Literature Review

Table 1: Ingredients of trial drug (*Viyakkirathi Kashayam*)

S.No	Tamil Name	Botanical Name	Family	Parts Used	Phyto Chemicals	Pharmacological Actions
1	*Kandankathari*	*Solanum xanthocarpum*	Solanaceae	Root	Solasodine Diosgenin[6]	Anti-inflammatory Anti-asthmatic Anti-allergic Anti-bacterial
2	*Chukku*	*Zingiber officinale*	Zingiberaceae	Rhizome	Volatile oil Gingerol Diarylheptanoid[7]	Analgesic Antiarthritic Anti-inflammatory Antimicrobial
3	*Seenthil*	*Tinospora cordifolia*	Menispermaceae	Stem	Alkaloids Terpenoids Steroids[8]	Antioxidant Anti-inflammatory Antimicrobial Antidiabetic

Figure 1: *Kandankathari* root

Figure 2: *Chukku*

Figure 3: *Seenthil kodi*

MATERIALS AND METHODS

Ingredients

1.Purified *Kandankathari* root *(Solanum xanthocarpum):* 1 *Palam* (35 gm)

2. Purified *Chukku (Zingiber officinale):* 1 *Palam* (35 gm)

3.Purified *Seenthil kodi (Tinospora cordifolia):* 1 *Palam* (35gm)

Standard Operative Procedures

The required raw drugs will be procured from a well- reputed indigenous raw drug supplier to ensure quality and authenticity. All ingredients will be purified according to the procedures described in the classical Siddha text *Marundhu Sei Iyalum Kalaiyum*. Following purification, the raw materials will be coarsely powdered and prepared in the form of *Kudineer Chooranam*. The prepared formulation will be stored in an airtight container to maintain its potency and stability. For administration, 5 g of *Viyakkirathi Kashaya Chooranam* will be taken and boiled in 200ml of water, reduced to 50ml, and filtered. To the filtrate, 800mg of *Thippili Chooranam* will be added and mixed thoroughly before use.

Table 2: Detailed description of *Viyakkirathi Kashayam* as per the siddha literature and detailed study design

Drug Profile	
Dose	50ml
Adjuvant	*Thippili chooranam* (3 *Virarkadai*)- 800mg
Indication	*Seerana suram, Arosikam, Suvasam, Irumal, Soolai, Agnimantham, Peenisam*
Medicine	*Viyakkirathi Kashayam*
Time	Twice a day
Course	30 days
Study Design	
Study type	Descriptive study
Study design	Case series
Study place	OPD, Govt. Siddha Medical College & Hospital, Palayamkottai.
Study period	4 months
Sample size	20 patients

Methodology

The study was conducted on the campus of Government Siddha Medical College (GSMC), Palayamkottai, after obtaining approval from the Institutional Ethics Committee (IEC). The trial was registered with the Clinical Trials Registry of India (CTRI No: CTRI/2024/06/069416) prior to patient enrolment.

Participants were recruited only after CTRI registration and will be informed about the objectives, procedures, and terms of the study in their regional language. Written informed consent will be obtained from all participants before inclusion.

This case series was designed to evaluate the effectiveness of *Viyakkirathi Kashayam* in the management of *Azhal Thalai Nokkadu* (sinusitis). Clinical symptoms were assessed by comparing pre- and post-treatment data using the Adelaide Disease Severity Score (ADSS).

Inclusion Criteria

- All genders
- Age between 16-60 years
- Rhinorrhea
- Nasal congestion
- Recurrent sneezing
- Pain and tenderness over paranasal sinus
- Headache
- Septal deviation

Exclusion Criteria

- Trigeminal neuralgia
- Sinus polyposis
- Migraine
- Otitis media
- Vasomotor rhinitis
- Pregnancy & Lactation

Withdrawal Criteria

- Participants who experienced drug intolerance or serious adverse reactions during the study period.
- Patient turned unwilling to continue in the course of clinical trial.
- Increase in severity of symptoms.
- Patient will not take medication regularly.

Method of Approach

Clinical Assessment

It is mainly assessed by Adelaide Disease Severity Score [9].

Table 3: Adelaide Disease Severity Score

Adelaide Disease Severity Score	Score
Nasal obstruction	1 2 3 4 5
Rhinorrhoea	1 2 3 4 5
Post –nasal drip	1 2 3 4 5
Headache or facial pain	1 2 3 4 5
Sense of smell	1 2 3 4 5

[1=no symptoms, 2=mild, 3=moderate, 4=severe, 5=extreme.]

RESULT

Demographic Data

Distribution of Cases by Age

As given in the table no:4 out of 20 patients, the age frequency ranged from minimum of 27 to maximum of 59 years, the mean age of this case series is 44.25.

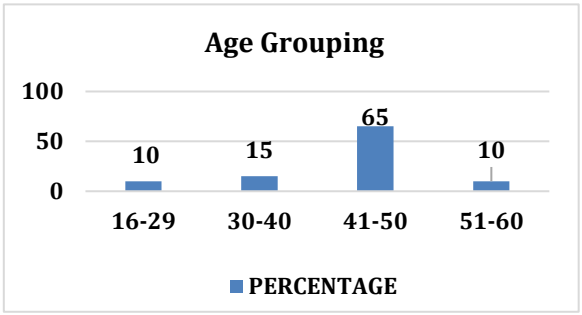
Table 4: Mean age of patients

Age	Minimum- 27	Mean: 44.25
	Maximum- 59	

Table 5: Frequency and percentage of patient's age

Age	Frequency	Percentage
16-29	2	10%
30-40	3	15%
41-50	13	65%
51-60	2	10%

Figure 4: Age grouping of patients



Inference

Out of 20 patients 2 patients (10%) come under the age group of 16-29 years, 3 patients (15%) belong to the age group of 30-40, 13 patients (65%) from 41-50 age group, 2 patients (10%) under the age group of 51-60 years.

Distribution of Cases by Marital Status

Table 6: Marital status

Marital Status	Frequency	Percentage
Unmarried	2	10%
Married	18	90%

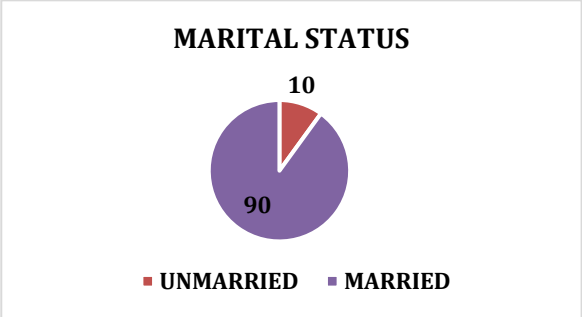


Figure 5: Marital status

Inference

Out of 20 patients 10% were unmarried and 90% were married.

Distribution of Cases by Dietary Habit

Table 7: Dietary habit

Dietary Habit	Frequency	Percentage
Vegetarian	3	15%
Non-vegetarian	17	85%

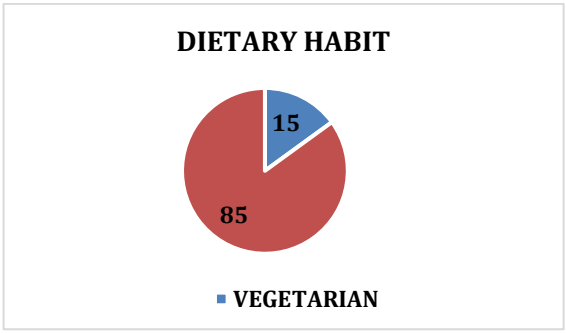


Figure 6: Dietary habit

Inference

Out of 20 patients, 85% were non-vegetarian and 15% were vegetarian.

Primary Outcome

Paired Test T Value & Hypothesis

Table 8: Statistical ADSS score of before and after treatment

Variable 1	Variable 2	t value	Sig 2 tailed p value	Significance
Nasal obstruction BT	Nasal obstruction AT	19.000	.000	HS*
Rhinorrhoea BT	Rhinorrhoea AT	22.650	.000	HS*
Post nasal trip BT	Post nasal trip AT	13.077	.000	HS*
Headache& Facial pain BT	Headache& Facial pain AT	21.476	.000	HS*
Loss of smell BT	Loss of smell AT	14.236	.000	HS*

Hypothesis

Nasal Obstruction

H0 = There is no significant difference in nasal obstruction before and after treatment.

Ha = There is a significant difference in nasal obstruction before and after treatment.

Since the p- valve is <0.05, the H0 is rejected, and Ha is accepted. Therefore, there is a significantly improvement in nasal obstruction before and after treatment with our trial drug *Viyakkirathi kashayam*.

Rhinorrhoea

H0 = There is no significant difference in rhinorrhoea before and after treatment.

Ha = There is a significant difference in rhinorrhoea before and after treatment.

Since the p- valve is <0.05, the H0 is rejected, and Ha is accepted. Therefore, there is a significantly improvement in rhinorrhoea before and after treatment with our trial drug *Viyakkirathi kashayam*.

Post Nasal Trip

H0 = There is no significant difference in post nasal trip before and after treatment.

Ha = There is a significant difference in post nasal trip before and after treatment.

Since the p- valve is <0.05, the H0 is rejected, and Ha is accepted. Therefore, there is a significantly improvement in post nasal trip before and after treatment with our trial drug *Viyakkirathi kashayam*.

Headache & Facial Pain

H0 = There is no significant difference in Headache and facial pain before and after treatment

Ha = There is a significant difference in Headache and facial pain before and after treatment.

Since the p- valve is <0.05, the H0 is rejected, and Ha is accepted. Therefore, there is a significantly improvement in headache and facial pain before and after treatment with our trial drug *Viyakkirathi kashayam*.

Loss of Smell

H0 = There is no significant difference in Loss of smell before and after treatment

Ha = There is a significant difference in Loss of smell before and after treatment.

Since the p- valve is <0.05, the H0 is rejected, and Ha is accepted. Therefore, there is a significantly improvement in Loss of smell before and after treatment with our trial drug *Viyakkirathi kashayam*.

Table 9: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	NOBT	3.50	20	.607	.136
	NOAT	1.60	20	.598	.134
Pair 2	RHBT	4.00	20	.725	.162
	RHAT	1.75	20	.550	.123
Pair 3	PNBT	2.85	20	.745	.167
	PNAT	1.35	20	.587	.131
Pair 4	FPBT	4.25	20	.639	.143
	FPAT	1.90	20	.553	.124
Pair 5	LOSBT	2.95	20	.686	.153
	LOSAT	1.35	20	.489	.109

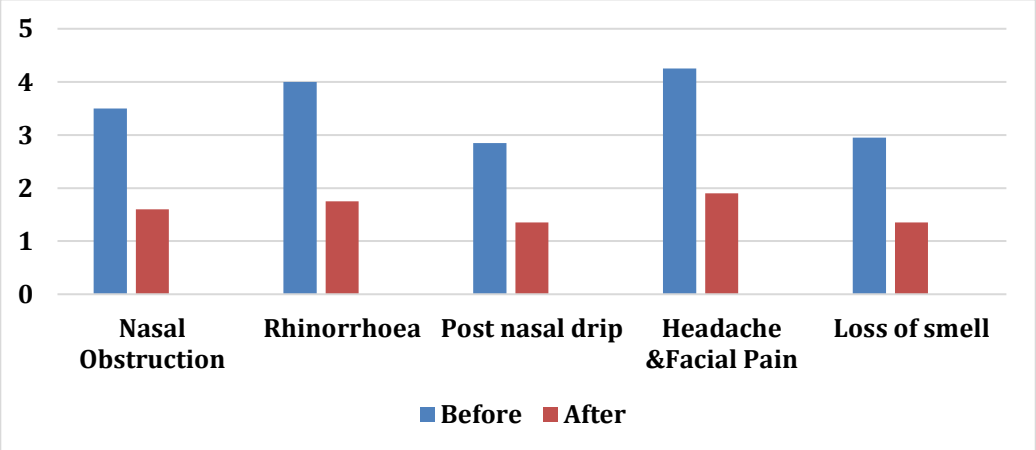


Figure 7: Mean ADSS score before and after treatment

Inference

Basis on the mean values, the above analysis state that the patient with nasal obstruction rhinorrhoea, headache and facial pain before treatment were completely reduced to mild state after treatment.

DISCUSSION

Sinusitis remains one of the most prevalent upper respiratory tract disorders, significantly impairing quality of life due to persistent nasal obstruction, rhinorrhea, post-nasal drip, facial pain, headache, anosmia, and associated sleep disturbances. The present study evaluated the therapeutic efficacy of *Viyakrathi Kashayam*, a classical Siddha formulation, in the management of sinusitis using the Adelaide Disease Severity Score (ADSS) as the primary outcome measure. The statistical analysis revealed a highly significant reduction (P<0.001) in ADSS scores when comparing baseline (BT) and post-treatment (AT) values. Paired t-test analysis confirmed that the

observed reduction in symptom severity was statistically significant and unlikely to be due to chance. The consistent decrease across all assessed parameters- including nasal obstruction, rhinorrhea, post-nasal drip, facial pain, headache, loss of smell, and overall symptom burden- demonstrates the comprehensive symptomatic relief provided by the intervention. From the Siddha perspective, sinusitis correlates with *"Azhal Thalai Nokkadu,"* wherein the derangement of *Pitha (Azhal)* and *Kabha* humors results in mucosal inflammation, congestion, and obstruction of the nasal passages. *Viyakṛathi Kaṣāyam* is traditionally indicated for pacifying aggravated *Azhal* and eliminating accumulated *Kabha*, thereby restoring equilibrium and normal physiological function. The formulation's anti-inflammatory, anti-microbial properties may explain the significant reduction in nasal blockage, discharge, and facial pain observed in the study. Improvement in anosmia and headache further suggests reduction in mucosal edema and enhanced sinus drainage and ventilation. Importantly, no adverse drug reactions were reported during the treatment period, indicating a favorable safety profile when administered in appropriate dosage under medical supervision. Considering that conventional sinusitis management frequently involves repeated courses of antibiotics, antihistamines, and decongestants- which may cause adverse effects and contribute to antimicrobial resistance- the use of a traditional Siddha polyherbal decoction presents a potentially safer and cost-effective therapeutic alternative.

CONCLUSION

The present study demonstrates that *Viyakrathi Kashayam* is significantly effective in the management of sinusitis, as evidenced by the highly significant reduction ($P<0.001$) in Adelaide Disease Severity Scores following treatment. The majority of patients showed marked clinical improvement, with substantial reduction in symptom severity and a notable proportion achieving complete relief. The absence of adverse effects further supports the safety and tolerability of the formulation. These findings suggest that *Viyakrathi Kashayam* offers a cost-effective, safe, and clinically beneficial Siddha therapeutic option for sinusitis. However, larger randomized controlled trials with long-term follow-up are recommended to further substantiate its efficacy and establish its role in integrative sinusitis management.

REFERENCES

1. Fokkens WJ, Lund VJ, Hopkins C, et al. (2020). European Position Paper on Rhinosinusitis and Nasal Polyps 2020 (EPOS 2020). Rhinology Supplement, 29: 1–464
2. Kuiper JR, Hirsch AG, Bandeen-Roche K, Sundaresan AS, Tan BK, Schleimer RP, Kern RC, Stewart WF, Schwartz BS. Prevalence, severity, and risk factors for acute exacerbations of nasal and sinus symptoms by chronic rhinosinusitis status. Allergy. 2018 Jun; 73(6): 1244-53. doi:10.1111/all.13409.
3. Rekhade, Tanvi & Nitnaware, A.Z. & Patel, Seema & Pawar, R.T. & Keche, Ashish. (2021). Clinical Profile of Chronic Rhinosinusitis: A Study in Central India. Paripex Indian Journal of Research. 104-106. 10.36106/paripex/1809951.
4. Dr. Thiyagarasan. R, L.I.M; Yugi Vaiththiya Sinthamani (peru nool 800) second edition 1976. Pg no: 234
5. Vaithiya Rathna P.S. Kuppusamy Mudhaliyar Anuboga vaithiya brahma rahasiam part -3, 2012; page no: 193.
6. Parmar, Sachin & Gangwal, Amit & Navin, Sheth. (2010). Solanum xanthocarpum (Yellow Berried Night Shade): A Review. Der Pharm Lett. 2.
7. Ur Rehman, Muhammad & Akram, Maheer & Naveed, Akhtar & Jabeen, Qaiser & Saeed, Tariq & Ali Shah, Dr Syed & Ahmad, Khalil & Shaheen, Dr & Asif, Muhammad. (2010). Zingiber officinale Roscoe (pharmacological activity). J Med Plants Res. 5.
8. Supriya K S: Singh D, Chaudhuri PK. Chemistry and Pharmacology of Tinospora cordifolia. Nat Prod Commun. 2017 Feb; 12(2): 299-308. PMID: 30428235.
9. Naidoo Y, Tan N, Singhal D, Wormald PJ. Chronic rhinosinusitis assessment using the Adelaide Disease Severity Score. The Journal of Laryngology and Otology. 2013 Jul; 127(S2): S24-8.

Cite this article as:
Supriya K S, Uma Kalyani S. Effectiveness of Viyakkirathi Kashayam in the Treatment of Azhal Thalai Nokkadu (Sinusitis). International Journal of Ayurveda and Pharma Research. 2026;14(3):124-129.
https://doi.org/10.47070/ijapr.v14i3.4065
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Supriya K S
PG Scholar,
Department of Pothu Maruthuvam,
Government Siddha Medical College,
Palayamkottai, Tirunelveli, Tamil Nadu.
Email: supriyaks1999@gmail.com