AYUSHDHARA
ISSN: 2393-9583 (P)/ 2393-9591 (O)
An International Journal of Research in AYUSH and Allied Systems

Research Article

CLINICAL STUDY ON *PIPPALYADI KSHARA GUTIKA* IN *THAMAK SHWASA*

Nikita Sharma
Assistant Professor, Department of Rog Nidan, SAHMC, Gharuan Mohali, Punjab, India.

Article info
Article History:
Received: 28-03-2022
Revised: 06-04-2022
Accepted: 17-04-2022
KEYWORDS:
Pippalyadi Kshara Gutika, *Thamak Shwasa, Bronchial Asthma.*

ABSTRACT

As day to day life of man has been completely ruined because of increasing pollution, urbanization, improper food habits, stressful life style, change in climatic conditions. These all factors parallel the increase in respiratory allergy. Symptoms of *Thamaka Shwasa* is quite similar to that of Bronchial Asthma. According to W.H.O between 100 to 150 million people around the world suffer from asthma and India has estimated 15-20 million asthmatics and this number is rising. *Thamaka Shwasa* is one among five varieties of *Shwasa* characterized by *Ati Teevra Shwasa, Kasa, Ghurghuraka Shabdha, Pinasa* etc. It is *Kapha Vata Pradhana Vyadhi*. Basic line of treatment in *Thamaka Shwasa is Kapha Vata Hara, Ushna* and *Vata Anulomana.* So in the present study *Pippalyadi Kshara Gutika* is considered, that contains *Pippali, Maricha, Guda, Yavakshara* and *Jambira Swarasa,* which has main action of *Vata Kapha Hara, Ushna and Vata Anulomana.* The selected combination is supposed to be affective in disrupting the etiopathogenesis of *Thamaka Shwasa*. So undertaking this trial with title "A clinical study of *Pippalyadi Kshara Gutika* in *Thamaka Shwasa*", as the contents are easily available, cost effective and will be useful for society. Materials & Methods: In this study a total of 30 patients suffering from *Thamak Shwasa* who fulfilled the inclusion criteria were selected and were treated with *Pippalyadi Kshara Gutika.* Result: In overall effect of treatment in *Thamaka Shwasa* out of 30 patients in this study 3 patients (10%) got *Kinchit Shamana* (mild improvement), 5 patients (17%) got *Amshika Shamana* (moderate improvement), 20 patients (67%) got *Prayika Shamana* (marked improvement) and 2 patients (6%) got *Shamana* (complete remission). None of the patients got *Guna alabha* (no change) overall effect of the treatment is 66.06%.

INTRODUCTION

As day to day life of man has been completely ruined because of increasing pollution (*Rajaha*, *Dhuma*), improper food habits (*Ruksha, Vishama, Vidhahi, Guru, Visthambhi, Abhishayandi Anna Sevana*), change in climatic conditions, consuming cold things including AC (*Ati Sheeta Vasa*) these are some of the factors that aggravates *Prana Vaha Strotas* thus leading to *Shwasa Krichratha* condition known as *Thamaka Shwasa*.[1]

Access this article online	
Quick Response Code	
	https://doi.org/10.47070/ayushdhara.v9i2.873

Shwasa Krichratha is one of the important *Lakshana* of the disease *Thamaka Shwasa* that is quite similar to that of Bronchial Asthma.

Thamaka Shwasa is one among the five varieties of *Shwasa*.[2] But out of these, *Kshudra Shwasa* is present as a symptom in most of the diseases and it does not require any management, where as *Maha*, *Urdhva* and *Chinna Shwasa* were present as independent or as *Upadrava* of several disease. The prognosis of these three is incurable one. [3]

In *Thamaka Shwasa, Vata* and *Kapha* are considered as causative factors.[4], *Vata* and *Kapha* these two *Doshas* gets aggravates by its own factors and causes *Thamaka Shwasa* (breathing difficulty) for example. Due to heavy exercise, *Veghasandharna* or *Ativyavama Vata* gets aggravates, *Kapha* gets aggravates by intake of *Anupa Masa* and *Dadhi*, Some factors like *Sheeta Sthana*, *Ambu Sevana* aggravates both *Doshas*.

According to W.H.O between 100 to 150 million (30%) people around the world suffer from asthma and India has estimated 15-20 million asthmatics (10% of world asthma patients) and this number is rising.[5]

Related to treatment Ayurveda advocates *Snehana, Swedana, Dhumpana, Shamana* and *Shodhana* line of treatment in *Thamaka Shwasa*. Among these procedures we considered *Shamana* line of treatment that includes oral administration of medicine as it is very easy and cost effective where as *Shodhana* line of treatment is not possible in all patients and in all time (when strength of patient is good and disease is in *Pravara Vyadhi Bala* then *Shodhana* is to be followed). Here the drugs which are having *Vata Kapha Hara, Ushna* and *Vata-Anulomana* property are to be used in *Thamaka Shwasa*.[6]

Plenty of research work has been carried out in relation to *Shamana* treatment as directed in Ayurveda and their therapeutic effect is proved. Many more herbal combinations are described in Ayurveda and their compressive action or wide action related to dominance of *Dosha,* chronicity is yet to be explored. *Pippalyadi Kshara Gutika* is one such herbal combination mentioned in *Gada Nigraha*. It contains *Pippali, Maricha, Guda, Yava Kshara* and *Jambira Swarasa*.[7] As per the line of treatment explained earlier. The selected combination is supposed to be effective in disrupting the etiopathogenesis of *Thamaka Shwasa*.

Samprapti* of *Thamaka Shwasa

Acharya Charaka described *Samanya Samprapti* of *Shwasa* in *Chikitsa Sthana* that is-due to *Nidana Sevana*, the aggravated *Vata* enters the *Pranavaha Srotasa* and provokes the *Urahstha Kapha*. This provoked *Kapha* obstructs the *Pranavaha Srotas* and gives rise to *Hikka* and *Shwasa*.[8]

In *Thamaka Shwasa* When the flow of *Prana Vayu* is reversed due to obstruction of *Srotas* (channels) by *Kapha*, it gets aggravated, surrounds the neck and head and leads to excess secretion of *Dushta Kapha* which leads to *Pinasa* and *Ghurghurukam* sound is produced. This condition leads to acute onset of dyspnoea which suffocates the *Prana*. Patient has a feeling of entering into darkness, thirst develops and faints, becomes unconsciousness. Paroxysmal attacks of *Kasa* occur. Unable to expectorate, he feels irritation and once the expectoration of *Dushta Kapha* occurs, gets relief for a moment. Hoarseness of the throat develops and there is difficulty in speaking. Patient suddenly wakes up with a sense of suffocation. Dyspnoea increases and he has to sit on the bed. So he feels comfortable while sitting and desires for hot things. His eye is raised upward; there is profuse perspiration on forehead and remains in state of distress. His mouth dries and suffers from paroxysmal attacks of dyspnoea. This condition is exacerbated due to clouds, rains, cold winds and air coming directly. The other psychosomatic factors like *Chinta*, *Shoka*, and *Bhaya* also aggravate the *Shwasaroga*. This condition is known as *Thamaka Shwasa*. It is *Yapya* disease, if it is of recent origin then totally curable.[9]

Samprati Ghataka

Dosha**:** *Kapha* and *Vata* (dominant)

Kapha (*Avalmbaka* and *Kledaka*)

Vata (*Prana*, *Udana*, *Samana*)

Dusya**:** *Rasa Dhatu*

Adhisthana**:** *Uraha*, *Phuphusa* (*Kapha Sthana*)

Srotas**:** *Pranavaha, Udakavaha, Annavaha*

Srotodusti Prakara**:** *Sanga, Vimargagamana, Atipravriti*

Udbhavasthana**:** *Pittasthana*[10] (*Charaka*) *Amashaya* [11](A.H.)

Agni**:** *Jatharagni*

Vyadhimarga: *Abhyantara*

Shvabhava: *Ashukari, Chirakari*

Chikitsa* of *Thamaka Shwasa

Chikitsa of *Thamaka Shwasa* is as follows-

Nidana Parivarjanam

In Ayurveda avoidance of causative factors is first line of treatment. So all patients should be follow wholesome regimen.[12]

Avoidance of causative factors is one of the prime treatments of disease.[13]

Samsodhana

Charaka emphasized that strong build patient with the dominance of *Kapha* should be treated with *Vamana* and *Virechana* therapy. [14]

To achieve *Samyata* of aggravated *Dosha* is the main aim of the treatment. To achieve this, *Shodhana* and *Shamana* therapies are described. For *Shodhana* one should consider about *Doshic* status as well as physical status of the patients.

Tamake Tu Virechanam. [15]

Charaka has mentioned that *Shwasa Roga* originates from *Pittasthana* so the *Sthanika Dosha Chikitsa* should be done first. [16] Hence *Virechana* for *Pitta Dosha* is recommended, but *Virechana* drugs must be associated with *Vata* and *Kaphahara* properties.[17]

Patients who are strong and predominance of *Kapha* should be treated with *Shodhana Chikitsa* while patients who are weak, *Ruksha* and predominance of *Vata* should be treated with *Shamana* therapy.[18]

Shamana Chikitsa

Acharya Charaka has described the *Samanya Chikits*a of *Shwasa* and *Hikka* as follows:

The medications, food and drinks which control *Vata* and *Kapha* with *Ushna* property and are specially *Vatanulomana* should be given in *Shwasaroga*.[19]

The predominant *Doshas* of *Thamaka Shwasa* are *Vata* and *Kapha*. It is important to note that the assessment of the *Dosha* is essential while treating the Disease. *Vata* and *Kapha* are contrary to each other. In the management of *Thamaka Shwasa*, it is customary to note that when *Vata* is obstructed by *Kapha*, just by increasing *Vata, Kapha* will automatically alleviate and *Vata* will be free to move in its course. When *Vata* is much aggravated than *Kapha*, treatment to increase *Kapha* will help to correct *Vata*. The antagonistic property of *Vata* and *Kapha* is a physiological phenomenon, after correction of this imbalance, the *Shwasaroga* can be relieved. To achieve the balance of *Dosha*, the *Doshas, Vata* and *Kapha* should be treated simultaneously. *Vata Dosha* plays an important role in the *Samprapti* of *Thamaka Shwasa*. Hence *Vatanulomana Chikitsa* is always preferable.[20]

Drug Review

The fundamental methods of treatment viz., *Samshodhana, Samshamana* and *Nidana Parivarjana* are mentioned in Ayurvedic classics, if administered judiciously, the desired results can be achieved. But the *Shodhana* therapy is not possible in all the conditions and in all the patients, all time.

In *Brimhana* and *Shamana* treatment, there is less possibility of complication in comparison to *Karshana* treatment. Thus in treatment of *Thamaka Shwasa*, Yoga should be *Brimhana* or *Shamana* rather than *Karshana*.[21]

So keeping this point in mind, only *Nidana Parivarjana* and *Samshamana* therapy were considered as therapeutic regime in this study.

According to A.H. the *Shwasa* is the *Amashaya Samudbhava* disease.[22]

According to Charaka, the disease *Thamaka Shwasa* is having *Kapha, Vata* predominance *Pittasthana Samudbhava*.[23]

Arundatta further stated- Drugs having *Deepana-Pachana* activities are used for the management of *Thamaka Shwasa*.[24]

Acharya Charaka explained that those diet and drugs having *Kaphavataghna, Ushna* and *Vataanulomana* properties are useful in *Thamaka Shwasa*.[25] Disease *Thamaka Shwasa* is having *Kapha, Vata* predominance.

Here the drug *Pippalyadi Kshara Gutika* had fulfilled above all the properties for the management of *Thamaka Shwasa* so it was selected for treatment group in this present study.

Selection of *Kalpana*

Pippalyadi Kshara Gutika was selected for present study on the basis of Acharya Shodhala reference *Gada Nigraha*.[26]

Reasons Behind Selection of the Drugs

An idea to formulate a new herbal compound drug containing all the ingredients easily available, described in the classics and scientifically proved effective in the disease *Thamaka Shwasa*.

Clinical Study

Methodological approach is the backbone of research. Utmost care is taken in designing a methodology for conducting a research. Clinical research involves the experimentation of a drug on a population and recording the feedback based on which postulations are made regarding the usefulness of the drug/therapy in the disease. Hence in this section, the researchers put forward the systemic procedures, which are followed by the researcher's right from identification of the problem to final conclusion.

Material Used for the Study

Pippalyadi Kshara Gutika which is described under *Gada Nighara* is taken as trial drug in present study.

Table 1: *Pippalyadi Kshara Gutika* Ingredients and Method of Proportions[27]

Drugs	Botanical name	Quantity
Pippali	*Piper Longum*	(1 *Karsha*)
Maricha	*Piper Nigrum*	(1 *Karsha*)
Yavakshara	-	(½ *Karsha*)
Guda	-	(2 *Pala*)
Jambira Swarasa	Citrus Limon	(½ *Pala*)

In Yoga Acharaya mentioned *Dadima Swarasa* to be used but here in our study we considered *Jambira Swarasa* instead of *Dadima*.

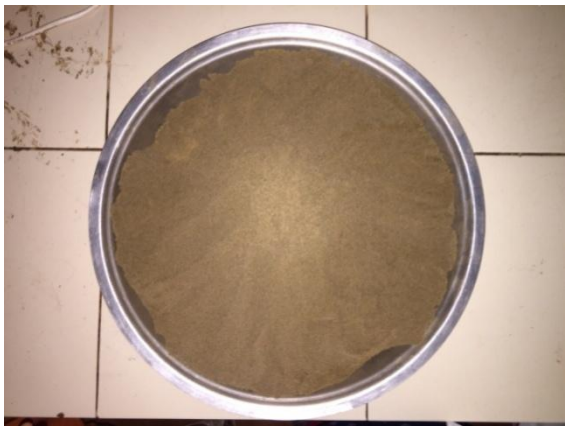
Ayurvedic measurements are in volumetric, so here for the study all medicines were took in volumetric measurements.

Drugs were taken in following proportions

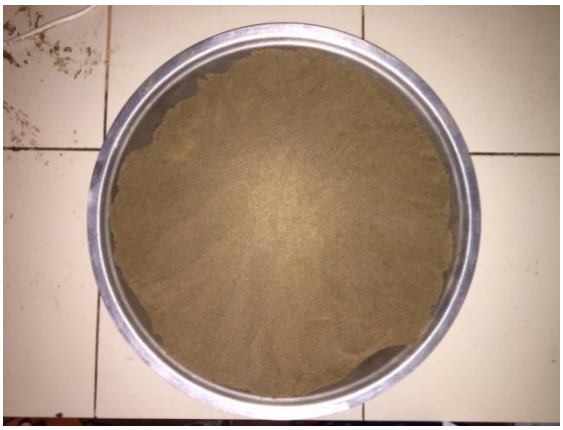
Pippali- ½ parts
Maricha- ½ parts
Yavakshara- ¼ parts
Guda- 8 part
Jambira Swarasa - Q.S

Preparation

- *Pippali, Maricha* and *Yavakshara*, were brought from local market after proper identification and then were dried and powdered separately.
- All the drugs were taken in a ratio of ½ part *Pippali, ½ part Maricha, ¼ Yavakshara,* 8 part *Guda*.
- Then they all were mixed together and pounded in a cleaned and dried *Khalwa*.
- 9 hrs *Bhavna* were given with *Jambira Swarasa* in *Khalwa*.
- After well pounding roll it into pills of 1/4th *Karsha*.
- Then dried under sunlight for 6 days and then stored in a container.



Picture No-1: *Pippali* Powder



Picture No-2: *Maricha* Powder

Picture No-3: *Yavakshara* Powder

Picture No-4: *Guda*

Picture No-5: *Bhavna* with *Jambira Swarasa*

Picture No-6: Pills of *Pippalyadi Kshara Gutika*

Methods of Collection of Data

Study Design- Open clinical study.

Sample Size- 30 patients fulfilling the diagnostic and inclusion criteria of either sex were selected.

Selection Criteria

Diagnostic Criteria

Diagnosis was made on the basis of *Lakshanas* of *Thamaka Shwasa* in Ayurvedic text.

Inclusion Criteria

1. Patients with *Thamaka Shwasa* diagnosed as per guidelines described in the classics.
2. Patient in between10-60 years of age irrespective of gender, caste, religion.
3. Patient with *Madhyam Vyadhi Bala* and *Avara Vyadhi Bala*.[28]

Exclusion Criteria

1. Patient with Chronic systemic disorders.
2. Patient with *Pravara Vyadhi Bala*.[29]

Treatment Schedule

Sample size- 30 patients

Medicine- *Pippalyadi Kshara Gutika*. [30]

Dose- 1/4th *Karsha* (4 times a day)

Duration- 14 days

Time of Administration - Repeatedly.[31] (as mentioned in classics *Shwasahara Dravyas* is to be taken *Muhurmuhu*) dose of 1/4th *Karsha* in tablet form for chewing.

Follow Up - Patient were assessed clinically on 1st, 7th, 14th day during treatment and follow up on 21st day after treatment.

Total Duration - 21 days

Clinical Parameters

Table 2: *Shwasa Krichrata*

No Breathlessness- Normal	Grade 0
Breathless with unacustamized activity- Mild	Grade 1
Breathless with accustomed- Moderate	Grade 2
Breathless at rest-Severe	Grade 3

Table 3: *Kasa*

No cough	Grade 0
Occasional cough/ Troublesome during attacks	Grade 1
Cough very troublesome and frequent	Grade 2
Cough distressing most of the time day/night	Grade 3

Table 4: *Kaphanisteevana*

No phlegm-Normal	Grade 0
Little quality of phlegm on coughing- Mild	Grade 1
Lots of phlegm with bouts of coughing- Moderate	Grade 2
Large quantity of phlegm on coughing- Severe	Grade 3

Table 5: *Ghurghurathwam*

No wheezing- Normal	Grade 0
Moderate wheezing between mid to end expiration- Mild	Grade 1
Loud wheeze throughout expiration- Moderate	Grade 2
Loud inspiratory and expiratory wheeze- Severe	Grade 3

Table 6: *Uraha Parshwa Graha*- (Chest tightness)

No chest tightness- Normal	Grade 0
Able to tolerate chest tightness associated with cough	Grade 1
Able to tolerate chest tightness with persists without cough	Grade 2
Feels difficulty to tolerate chest tightness with or without cough	Grade 3

Table 7: *Shayanasya Shwasa Peeditha*

No discomfort- Normal	Grade 0
<1 or 2 times/month- Mild	Grade 1
2 times/week- Moderate	Grade 2
>3/week or frequency- Severe	Grade 3

Table 8: Frequency of *Shwasa Vega*

No symptoms- Normal	Grade 0
1/episode/week- Mild	Grade 1
>1-2 episode/week- Moderate	Grade 2
>Four episode/week- Severe	Grade 3

Table 9: *Pinasa*

Pinasa absent	Grade 0
Pinasa present	Grade 1

Table 10: *Lalata Sweda*

Lalata Sweda absent	Grade 0
Lalata Sweda present	Grade 1

Table 11: *Pratamyati Ati Veghat*

Pratamyati Ati Veghat absent	Grade 0
Pratamyati Ati Veghat present	Grade 1

Table 12: *Pramoham Kasamansheha*

Pramoham Kasamansheha absent	Grade 0
Pramoham Kasamansheha present	Grade 1

Table 13: *Sleshma Amuchyamane Tu Bhrisham Dukham*

Sleshma Amuchyamane Tu Bhrisham Dukham absent	Grade 0
Sleshma Amuchyamane Tu Bhrisham Dukham present	Grade 1

Table 14: *Vimoksante Sukham*

Vimoksante Sukham absent	Grade 0
Vimoksante Sukham present	Grade 1

Table 15: *Annadwesha*

Annadwesha absent	Grade 0
Annadwesha present	Grade 1

Table 16: *Aruchi*

Aruchi absent	Grade 0
Aruchi present	Grade 1

Table 17: *Asya Shosha*

Asya Shosha absent	Grade 0
Asya Shosha present	Grade 1

Table 18: *Vapathu*

Vapathu absent	Grade 0
Vapathu present	Grade 1

Table 19: *Vamathu*

Vamathu absent	Grade 0
Vamathu present	Grade 1

Table 20: *Ucchritaksho*

Ucchritaksho absent	Grade 0
Ucchritaksho present	Grade 1

Table 21: *Nidranasha*

Nidranasha absent	Grade 0
Nidranasha present	Grade 1

Table 22: *Kantodhvamsa*

Kantodhvamsa absent	Grade 0
Kantodhvamsa present	Grade 1

Table 23: *Asino Labhate Sukhyam*

Asino Labhate Sukhyam absent	Grade 0
Asino Labhate Sukhyam present	Grade 1

Table 24: Overall Assessment of Clinical Response

Guna Alabha- No relief in signs and symptoms
Kinchit Shamana- 1-30% relief in signs and symptoms.
Amshika Shamana- 31-60% relief in signs and symptoms.
Prayika Shamana- 61-99% relief in signs and symptoms.
Shamana- 100% relief in signs and symptoms

Assessment Criteria

By the compilation of *Samanya Lakshana* of *Thamaka Shwasa* from different Ayurvedic texts books, it is found around 22 *Lakshanas* which can be seen clinically in different stages of the disease. For the assessment of the study following *Lakshana* was considered .They were assess different grading and analysed statistically by T-Test.

Table 25: Overall Effect of Treatment

Overall Effect of Treatment		
Grading	**Relief in Percentage**	**Relief in Patients**
No improvement	0%	0
Mild improvement	1-30 %	3
Moderate improvement	31 – 60%	5
Marked improvement	61 – 99 %	20
Complete remission	100%	2

In Overall effect of treatment in *Thamaka Shwasa* out of 30 patients in this study 3 patients (10%) were getting mild improvement, 5 patients (17%) were getting moderate improvement, 20 patients (67%) were getting marked improvement and 2 patients (6%) were getting complete remission. Overall effect of the treatment is 66.06%

Table 26: Overall effect of the treatment

Lakshanas	**Number of patients**	**Percentage of patient**
1. *Shwasa Krichrata*	30	100
2. *Kasa*	30	100
3. *Kaphanisteevana*	8	26.66
4. *Ghurghurathwam*	2	6.66
5. *Uraha Parshwa Graha* (Chest tightness)	2	6.66
6. *Shayanasya Shwasa Peeditha*	30	100
7. *Frequency of Shwasa Vega*	30	100
8. *Pinasa*	21	70
9. *Lalata Sweda*	1	3.33
10. *Pratamyati Ati Veghat*	2	6.66
11. *Pramoham Kasamansheha*	0	0
12. *Sleshma Amuchyamane Tu Bhrisham Dukham*	23	76.66
13. *Vimoksante Sukham*	0	0

14. *Annadwesha*	5	16.66
15. *Aruchi*	13	43.33
16. *Asya Shosha*	15	50
17. *Vepathu*	0	0
18. *Vamathu*	3	10
19. *Ucchritaksho*	0	0
20. *Nidranasha*	26	86.66
21. *Kantodhvamsa*	4	13.33
22. *Asino Labhate Sukhyam*	29	96.66

DISCUSSION ON DRUG

As mentioned in classics the drug which is not mentioned in Yoga and found effective in disease. Then we can use that drug by replacing or by adding.[32]

In Yoga Acharaya mentioned *Dadima Swarasa* to be used but here in our study we considered *Jambira Swarasa* instead of *Dadima*.

Reason: As *Dadima* is more *Kapha Pitta* Hara and it contain more *Madhur Rasa* with that, the chances of Kapha aggravation will be more. Whereas *Jambira Swarasa* is more *Vata Kaphahara*.[33]

More over classical reference is also available .In context of "*Ananda Bhairava Rasa*".[34] it has *Jambira Swarasa* that can be used in *Shwasa* and in "*Chitrakadi Vati*".[35] it has both *Jambira Swarasa* and *Dadima Swarasa*. This means both have same quality related to disease. Because of availability, cost and convenience, here in this study *Jambira Swarasa* was used instead of *Dadima Swarasa*.

CONCLUSION

Better to collect dry quality of *Guda* especially in coastal areas, and medicine not to be prepared in rainy season otherwise these difficulties will arise.

Discussion on Dose

- The Author of *Gada Nigraha (Shodhala)* not specified particular dose while explaining *Pippalyadi Kshara Gutika.*
- *Sharangdhara* while explaining general dose of *Vati* is to be given in 1 *Karsha*.[36]
- As mentioned in classics *Shwasa Hara Dravyas is* to be taken *Muhurmuhu* (repeatedly).[37]
- While giving medicine frequently in *Shwasa* it looks difficult for patient to give medicine in that much dose.
- More over *Pippalyadi Kshara Gutika* possess *Tikshna Guna*.
- Keeping these points in view dose was reduced to get good result.
- (Not with same dose of 1 *Karsha*) for convenience of patient dose of 1Karsha divided for 4 times i.e., ¼ *Karsha* in tablet form for chewing.
- Time of administration-9 am: 1pm: 5pm: 9: pm -after food (four times a day)

RESULTS

In the present study, 30 patients suffering from *(Thamaka Shwasa)* fulfilling the inclusion criteria was studied and were randomly selected. Each patient was observed thoroughly and noted neatly. The observations are recorded and necessary charts and graphs were made.

Table 27: Effect of *Shwasa Krichrata* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Shwasa Krichrata	1.50	AT	0.80	0.70	46.67	0.535	0.10	7.17	<0.001
		AF	0.77	0.73	48.89	0.521	0.10	7.71	<0.001

Statistical analysis showed that the mean score which was 1.50 in before treatment, was reduced to 0.80 the after treatment and reduced to 0.77 in after follow up with 48.89% improvement, and there is a statistically significant change. (P<0.001)

Table 28: Effect of *Kasa* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Kasa	1.73	AT	0.80	0.93	53.85	0.583	0.11	8.76	<0.001
		AF	0.73	1.00	57.69	0.587	0.11	9.33	<0.001

Effect on *Kasa*

Statistical analysis showed that the mean score which was 1.73 in before treatment, was reduced to 0.80 the after treatment and reduced to 0.73 in after follow up with 57.69% improvement, and there is a statistically significant change. (P<0.001)

Table 29: Effect of *Kaphanisteevana* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Kaphanisteevana	0.30	AT	0.10	0.20	66.67	0.407	0.07	2.69	<0.05
		AF	0.10	0.20	66.67	0.407	0.07	2.69	<0.05

Effect on *Kaphanisteevana*

Statistical analysis showed that the mean score which was 0.30 in before treatment, was reduced to 0.10 the after treatment and reduced to 0.10 in after follow up with 66.67% improvement, and there is a statistically significant change. (P<0.05)

Table 30: Effect of *Ghurghurathwam* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Ghurghurathwam	1.20	AT	0.47	0.73	61.11	0.74	0.14	5.43	<0.001
		AF	0.33	0.87	72.22	0.776	0.14	6.12	<0.001

Effect on *Ghurghurathwam*

Statistical analysis showed that the mean score which was 1.20 in before treatment, was reduced to 0.47 the after treatment and reduced to 0.33 in after follow up with 72.22% improvement, and there is a statistically significant change. (P<0.001)

Table 31: Effect of *Uraha Parshwa Graha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Uraha Parshwa Graha	0.07	AT	0.03	0.03	50.00	0.183	0.03	1.00	>0.05
		AF	0.03	0.03	50.00	0.183	0.03	1.00	>0.05

Effect on *Uraha Parshwa Graha*

Statistical analysis showed that the mean score which was 0.07 in before treatment, was reduced to 0.03 the after treatment and reduced to 0.03 in after follow up with 50% improvement, and there is no statistically significant change. (P>0.05)

Table 32: Effect of *Shayanasya Shwasa Peedhitha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Shayanasya Shwasa Peedhitha	1.57	AT	0.73	0.83	53.19	0.648	0.12	7.05	<0.001
		AF	0.73	0.83	53.19	0.648	0.12	7.05	<0.001

Effect on *Shayanasya Shwasa Peedhitha*

Statistical analysis showed that the mean score which was 1.57 in before treatment, was reduced to 0.73 the after treatment and reduced to 0.73 in after follow up with 53.19% improvement, and there is a statistically significant change. (P<0.001)

Table 33: Effect of Frequency of *Shwasa Vega* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Frequency of *Shwasa Vega*	1.57	AT	0.73	0.83	53.19	0.699	0.13	6.53	<0.001
		AF	0.70	0.87	55.32	0.681	0.12	6.97	<0.001

Effect on Frequency of *Shwasa Vega*

Statistical analysis showed that the mean score which was 1.57 in before treatment, was reduced to 0.73 the after treatment and reduced to 0.70 in after follow up with 55.32% improvement, and there is a statistically significant change. (P<0.001)

Table 34: Effect of *Pinasa* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Pinasa	0.67	AT	0.10	0.57	85.00	0.504	0.09	6.16	<0.001
		AF	0.10	0.57	85.00	0.504	0.09	6.16	<0.001

Effect on *Pinasa*

Statistical analysis showed that the mean score which was 0.67 in before treatment, was reduced to 0.10 the after treatment and reduced to 0.10 in after follow up with 85% improvement, and there is a statistically significant change. (P<0.001)

Table 35: Effect of *Lalata Sweda* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Lalata Sweda	0.07	AT	0.00	0.07	100	0.254	0.05	1.44	>0.05
		AF	0.00	0.07	100	0.254	0.05	1.44	>0.05

Effect on *Lalata Sweda*

Statistical analysis showed that the mean score which was 0.07 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 100% improvement, and there is no statistically significant change. (P>0.05)

Table 36: Effect of *Pratamyati Ati Veghat* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Pratamyati Ati Veghat	0.07	AT	0.00	0.07	100	0.254	0.05	1.44	>0.05
		AF	0.00	0.07	100	0.254	0.05	1.44	>0.05

Effect on *Pratamyati Ati Veghat*

Statistical analysis showed that the mean score which was 0.07 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 100% improvement, and there is no statistically significant change. (P>0.05)

Table 37: Effect of *Pramoham Kasamansheha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Pramoham Kasamansheha	0.00	AT	0.00	0.00	0.00	0	0.00	0.00	0
		AF	0.00	0.00	0.00	0	0.00	0.00	0

Effect on *Pramoham Kasamansheha*

Statistical analysis showed that the mean score which was 0.00 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 0.00% improvement, and there is no statistically significant change.

Table 38: Effect of *Sleshma Amuchyamane Tu Bhrisham Dukham* in *(Thamaka Shwasa)*

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Sleshma Amuchyamane Tu Bhrisham Dukham	0.77	AT	0.33	0.43	56.52	0.504	0.09	4.71	<0.001
		AF	0.23	0.53	69.57	0.507	0.09	5.76	<0.001

Effect on *Sleshma Amuchyamane Tu Bhrisham Dukham*

Statistical analysis showed that the mean score which was 0.77 in before treatment, was reduced to 0.33 the after treatment and reduced to 0.23 in after follow up with 69.57% improvement, and there is a statistically significant change. (P<0.001)

Table 39: Effect of *Vimokshante Sukham* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+-)	S.E (+-)	t value	p value
	BT								
Vimokshante Sukham	0.00	AT	0.00	0.00	0.00	0	0.00	0.00	0
		AF	0.00	0.00	0.00	0	0.00	0.00	0

Effect on *Vimokshante Sukham*

Statistical analysis showed that the mean score which was 0.00 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 0.00% improvement, and there is no statistically significant change.

Table 40: Effect of *Annadwesha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Annadwesha	0.17	AT	0.03	0.13	80.00	0.346	0.06	2.11	>0.05
		AF	0.03	0.13	80.00	0.346	0.06	2.11	>0.05

Effect on *Annadwesha*

Statistical analysis showed that the mean score which was 0.17 in before treatment, was reduced to 0.03 the after treatment and reduced to 0.03 in after follow up with 80% improvement, and there is no statistically significant change. (P>0.05)

Table 41: Effect of *Aruchi* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Aruchi	0.43	AT	0.03	0.40	92.31	0.498	0.09	4.40	<0.001
		AF	0.03	0.40	92.31	0.498	0.09	4.40	<0.001

Effect on *Aruchi*

Statistical analysis showed that the mean score which was 0.43 in before treatment, was reduced to 0.03 the after treatment and reduced to 0.03 in after follow up with 92.31% improvement, and there is a statistically significant change. (P<0.001)

Table 42: Effect of *Asyo Shosha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Asyo Shosha	0.50	AT	0.13	0.37	73.33	0.49	0.09	4.10	<0.001
		AF	0.10	0.40	80.00	0.498	0.09	4.40	<0.001

Effect on *Asyo Shosha*

Statistical analysis showed that the mean score which was 0.50 in before treatment, was reduced to 0.13 the after treatment and reduced to 0.10 in after follow up with 80% improvement, and there is a statistically significant change. (P<0.001)

Table 43: Effect of *Vapathu* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Vapathu	0.00	AT	0.00	0.00	0.00	0.00	0.00	0.00	0
		AF	0.00	0.00	0.00	0.00	0.00	0.00	0

Effect on *Vapathu*

Statistical analysis showed that the mean score which was 0.00 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 0.00% improvement, and there is no statistically significant change.

Table 44: Effect of *Vamathu* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Vamathu	0.10	AT	0.00	0.10	100	0.305	0.06	1.80	>0.05
		AF	0.00	0.10	100	0.305	0.06	1.80	>0.05

Effect on *Vamathu*

Statistical analysis showed that the mean score which was 0.10 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 100% improvement, and there is no statistically significant change. (P>0.05)

Table 45: Effect of *Ucchritaksho* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Ucchritaksho	0.00	AT	0.00	0.00	0.00	0.00	0.00	0.00	0
		AF	0.00	0.00	0.00	0.00	0.00	0.00	0

Effect on *Ucchritaksho*

Statistical analysis showed that the mean score which was 0.00 in before treatment, was reduced to 0.00 the after treatment and reduced to 0.00 in after follow up with 0.00% improvement, and there is no statistically significant change.

Table 46: Effect of *Nidranasha* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Nidranasha	0.87	AT	0.33	0.53	61.54	0.507	0.09	5.76	<0.001
		AF	0.27	0.60	69.23	0.498	0.09	6.60	<0.001

Effect on *Nidranasha*

Statistical analysis showed that the mean score which was 0.87 in before treatment, was reduced to 0.33 the after treatment and reduced to 0.27 in after follow up with 69.23% improvement, and there is a statistically significant change. (P<0.001)

Table 47: Effect of *Kantodhvamsa* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Kantodhvamsa	0.13	AT	0.07	0.07	50.00	0.253	0.05	1.44	>0.05
		AF	0.03	0.10	75.00	0.305	0.06	1.80	>0.05

Effect on *Kantodhvamsa*

Statistical analysis showed that the mean score which was 0.13 in before treatment, was reduced to 0.07 the after treatment and reduced to 0.03 in after follow up with 75% improvement, and there is no statistically significant change. (P>0.05)

Table 48: Effect of *Asino Labhate Sukhyam* in (*Thamaka Shwasa*)

Symptom	Measures				%	S.D (+.)	S.E (+.)	t value	p value
	BT								
Asino Labhate Sukhyam	0.97	AT	0.43	0.53	55.17	0.507	0.09	5.76	<0.001
		AF	0.33	0.63	65.52	0.490	0.09	7.08	<0.001

Effect on *Asino Labhate Sukhyam*

Statistical analysis showed that the mean score which was 0.97 in before treatment, was reduced to 0.43 the after treatment and reduced to 0.33 in after follow up with 65.52% improvement, and there is a statistically significant change. (P<0.001)

Table 49: Overall effect of *Pippalyadi Kshara Gutika* in each *Lakshanas*

Lakshanas	Number of patients	Total effect in percentage	Significance
1. *Shwasa Krichratha*	30	48.89	Significant
2. *Kasa*	30	57.69	Significant
3. *Kaphanisteevana*	8	66.67	Significant
4. *Ghurghurathwam*	2	72.22	Significant
5. *Uraha Parshwa Graha* (Chest tightness)	2	50	Not-Significant
6. *Shayanasya Shwasa Peeditha*	30	53.19	Significant
7. Frequency of *Shwasa Vega*	30	55.32	Significant
8. *Pinasa*	21	85	Significant
9. *Lalata Sweda*	1	100	Not-Significant

10. *Pratamyati Ati Veghat*	2	100	Not-Significant
11. *Pramoham Kasamansheha*	0	0.00	Not-Significant
12. *Sleshma Amuchyamane Tu Bhrisham Dukham*	23	69.57	Significant
13. *Vimokshante Sukham*	0	0.00	Not-Significant
14. *Annadwesha*	5	80	Not-Significant
15. *Aruchi*	13	92.31	Significant
16. *Asya Shosha*	15	80	Significant
17. *Vepathu*	0	0.00	Not-Significant
18. *Vamathu*	3	100	Not-Significant
19. *Ucchritaksho*	0	0.00	Not-Significant
20. *Nidranasha*	26	69.23	Significant
21. *Kantodhvamsa*	4	75	Not-Significant
22. *Asino Labhate Soukhyam*	29	65.52	Significant

Overall Effect of *Pippalyadi Kshara Gutika*

- In overall effect of treatment in *Thamaka Shwasa* out of 30 patients in this study 3 patients (10%) got *Kinchit Shamana* (mild improvement), 5 patients (17%) got *Amshika Shamana* (moderate improvement), 20 patients (67%) got *Prayika Shaman*a (marked improvement) and 2 patients (6%) got *Shamana* (complete remission). None of the patients got *Guna Alabha* (no change)
- Overall effect of the treatment is 66.06%
- *Pippalyadi Kshara Gutika* gives remarkable improvements in *Aruchi* (92.13%), *Pinasa* (85%) *Asya Shosha* (80%), *Ghurghurathwam* (72.22%), *Sleshma Amuchyamane Tu Bhrisham Dukham* (69.57%), *Nidranasha* (69.23%), *Kaphanisteevana* (66.67%), *Asino Labhate Soukhyam* (65.52%), *Kasa* (57.69%), Frequency of *Shwasa Vega* (55.32%), *Shayanasya Shwasa Peeditha* (53.19%), *Shwasa Krichratha* (48.89%). It is statistically significant.

CONCLUSION

1. Overall effect of *Pippalyadi Kshara Gutika* is 66.06%.
2. On the basis of result it shows that drug is having almost same effect in *Vataja* and *Kaphaja* variety of *Thamaka Shwasa* treatment.
3. It is concluded that it is effective in both *Kapha-Vata Thamaka Shwasa*.
4. In study *Nidana* are many in number but out of these *Sheeta Sthana*, *Sheeta Pana, Jalajamamsa, Rajas*, *Dhuma* observed more in the study. So It was found that the *Nidana* of *Thamaka Shwasa* were especially *Kapha* and *Vata*.
5. The symptomatology of *Thamaka Shwasa* is quite similar to that of Bronchial Asthma.
6. *Pippalyadi Kshara Gutika* was found to be more effective in mild and moderate degree of *Thamaka Shwasa*.
7. Irrespective of chronicity of 6 month- 1year and above 1 year to 3 year same effect is seen.
8. During the period of treatment and after the treatment neither complication was observed nor did the patients complain any serious side effects. Thus it can be termed as “Safer Drug”. So it can be taken for long time.
9. Ingredients used are easily available, is easy to prepare and administer also cost effective.

REFERENCES

1. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol- 2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition- 2006, Chikista Sthana, Chapter No-17, Sloka No-13-16, Page No-418.
2. Pt.Hari Sadasiva Shastri Paradakara Bhisadacharya edited Asthanga hridaya, with Sarvangasundari commentary of Arunadatta, Published by Chaukhamba Surbharati Prakashan Varanasi, Reprint Edition-2010, Nidana Sthana, Chapter No-4, Sloka No-2, Page No-472.
3. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition- 2006, Chikista Sthana, Chapter No-17, Sloka No-69, Page No-426.
4. Ibid; Chikista Sthana, Chapter No-17, Sloka No-8, Page No-417.
5. http//www.who.org.in.
6. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint

Edition- 2006, Chikista Sthana, Chapter No-17, Sloka No-147, Page No-435.

7. Sri Vaidya Sodhala edited Gadanigraha with Vidyotine Hindi commentary by Sri Indradeva Tripathi, edited by Sri Ganga Sahaya Pandeya, Part-1 (Prayogakhand), Publisher by Chaukambha Sanskrit Samstan, Edition- 4th- 2003, Chapter-4, Sloka No-151-152, Page No-242.
8. Pandit Lalchandra Shastri edited Asthanga sangraha with commentary by Sarvangasundar, Published by Vaidyanath, Edition- Nidana Sthana, Chapter No-4, Sloka No-3-4, Page No-259.
9. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition- 2006, Chikista Sthana, Chapter No-17, Sloka No-55-62, Page No-424.
10. Ibid; Chikista Sthana, Chapter No-17, Sloka No-8, Page No-417.
11. Pt.Hari Sadasiva Shastri Paradakara Bhisadacharya edited Asthangahridaya, with Sarvangasundari commentary of Arunadatta, Published by Chaukhamba Surbharati Prakashan Varanasi, Reprint Edition-2010, Nidana Sthana, Chapter No-4, Sloka No-3, Page No-472.
12. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition- 2006, Chikista Sthana, Chapter No-17, Sloka No-137, Page No-434.
13. Ibid; Chapter No-6, Sloka No-53, Page No-176.
14. Ibid; Chapter No-17, Sloka No-89, Page No-428.
15. Ibid; Chapter No-17, Sloka No-121, Page No-432.
16. Ibid; Chapter No-17, Sloka No-8, Page No-417.
17. Ibid; Chapter No-17, Sloka No-121, Page No-432.
18. Ibid; Chapter No-17, Sloka No-92, Page No-429.
19. Ibid; Chapter No-17, Sloka No-147, Page No-435.
20. Ibid; Chapter No-17, Sloka No-148, Page No-435.
21. Ibid; Chapter No-17, Sloka No-149, Page No-436.
22. Ibid; Chapter No-4, Sloka No-3 ,Page No-472.
23. Ibid; Chapter No-17, Sloka No-8, Page No-417.
24. Pt.Hari Sadasiva Shastri edited Astangahridaya, with Sarvangasundari commentary of Arundatta, Published by Chaukhamba Surbharati Prakashan, Reprint Edition-2010, Nidana Sthana, Chapter No-4, Sloka No-3, Page No-472.
25. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition-2006, Chikista Sthana, Chapter No-17, Sloka No-147, Page No-435.
26. Sri Vaidya Sodhala edited Gadhanigraha with Vidyotine Hindi commentary by Sri Indradeva Tripathi, edited by Sri Ganga Sahaya Pandeya, Part-1 (Prayogakhand), Publisher by Chaukambha Sanskrit Samstan, Edition-4th-2003, Chapter-4, Sloka No-151-152, Page No-242.
27. Ibid; Chapter-4, Sloka No-151-152, Page No-242.
28. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Caraka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-1st, Publisher- Chaukhamba Sanskrit Pratishthan, Edition-2005, Vimana Sthana, Chapter-3, Sloka no-44, Page no-578.
29. Ibid; Chapter-3, Sloka no-44, Page no-578
30. Sri Vaidya Sodhala edited Gadhanigraha with Vidyotine Hindi commentary by Sri Indradeva Tripathi, edited by Sri Ganga Sahaya Pandeya, Part-1 (Prayogakhand), Publisher by Chaukambha Sanskrit Samstan, Edition-4th-2003, Chapter-4, Sloka No-151-152, Page No-242.
31. Pandita Sharangadharacarya edited Sharngadhara Samhita with Anjananidana of Maharshi Agnivesa annoted with Dipika Hindi commentary by Brahmanand Tripathi, Publisher- Chaukhamba Sanskrit pratisthan, Edition-1997, Chapter-2, Shloka-10,Page no-25
32. Ibid; Chapter-1, Page no-20,Sloka-60.
33. Sri Brahmasankara Misra and Rupalalaji Vaisya edited Bhavaprakasa including Bhavaprakasa Nighantu with Hindi commentary, 1st part, Published by Chaukhamba Sanskrit Bhawan, 11th Edition- 2010, Chapter- Amaradi Fala Varga, Sloka No-154, 153, Page No-594.
34. Shri Rajeshwardatta Shastri edited Bhaishajya ratnavali of Shri Govind Das , edited and enlarged Bhaishagranta Shri Brahama Shankar Mishra Hindi Commentery with Appendices by Shri Kaviraja Ambikadatta Shastri Ayurvedacharya. Publisher- Chaukhamba prakashan, Edition-twentieth-2010, Ch-6 (Jwara Atisara), Sloka-76, 77, 78, Page-210.
35. Ibid; Ch-8 (Ghrani Roga Chikitsa), Page-242, Sloka-26, 27.
36. Pandita Sharangadharacarya edited Sharngadhara Samhita with the commentary Adhamalla Dipika and Kasirama Gudhartha Dipika edited by Pandit Parasurama Sastri, Publisher-Chaukhamba

Sanskrit pratisthan, 3rd Edition-1983, Chapter-7, Sloka-5, Page no-197.

37. Ibid; Edition-1997, Chapter-2, Sloka-10, Page no-25
38. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition-2006, Chikista Sthana, Chapter No-17, Sloka No-147, Page No-435.
39. Pandit Hemaraja Sharma edited Kashyapa Samhita with Hindi commentary by Sri Satyapala Bhaisagacharya, Published by Chaukhamba Sanskrit Bhawan, Reprint Edition-2008, Khila Sthana, Chapter-6, Sloka No-30-34, Page No-264.
40. Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi edited Charaka Samhita text with Hindi commentary along with special deliberation by Vaidyamanorama, Vol-2nd Published by Chaukhamba Sanskrit Pratishthan, Reprint Edition-2005, Sutra Sthana, Chapter No-26, Sloka No-3, Page No-370.

Cite this article as:
Nikita Sharma. Clinical Study on Pippalyadi Kshara Gutika in Thamak Shwasa. AYUSHDHARA, 2022;9(2):12-25.
https://doi.org/10.47070/ayushdhara.v9i2.873
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Nikita Sharma
Assistant Professor
Dept. of Rog Nidan
SAHMC, Gharuan Mohali, Punjab.
Email: nikki051990@gmail.com
Phone: 9888037720