

CLINICAL STUDY TO EVALUATE THE COMBINED EFFECT OF AVIPATHI CHOORNA WITH ARAGWADAMRITHADI KASHAYA IN THE MANAGEMENT OF AMLAPITHA

¹ Kombilath Seenaa,

²R.Sandeep Bekal,

¹PG Scholar, Dept of Kayachikitsa, Karnataka Ayurveda Medical College, Mangalore

²Prof, Hod, Dept of Kayachikitsa, Karnataka Ayurveda Medical College, Mangalore

ABSTRACT

“Amlapitta” a common gastrointestinal disorder influenced by stressful life and eating habits. In short Hurry-Curry-Worry are the factors responsible for *Amlapitta*. So, a clinical trial was carried out on 75 patients between the age of 16 -60 years who presented with signs and symptoms of *Amlapitta* irrespective of their Sex, Religion, Occupation and Socioeconomical status to evaluate the efficacy of adding *Avipathi Choorna* along with *Aaragwadhamrutadi Kashaya*. Registered Patient was allotted randomly by lottery method into three equal groups of minimum 25 patients each as A, B, C. In present clinical trial group A, *Avipathi choorna* with *Aaragwadhamrutadi Kashaya* was given in two divided dose of 48 ml for 21 days. Group B *Aragwadamrithadi Kashaya* given in two divided doses of 48 ml for 21 days. Group C 12 gms of *Avipathichoorna* mixed with honey was given in two divided doses. *Aragwadamrithadi Kashaya* with *Avipathichoorna* along with lifestyle modification helps not only reduce the symptoms of *Amlapitta* in less duration but also to maintain the health.

Keywords: *Amlapitta, Aaragwadhamrutadikashaya, Avipathichoorna.*

INTRODUCTION: Changing lifestyle, ingress of fast food culture and the impact of stress in day to day life has led to a gradual rise in the number of patients with gastrointestinal disorders. *Amlapitta* is one of the commonest among the gastrointestinal disorders. *Amlapitta*¹ means when *amlata* (sourness) of *pitta* is increased, it leads to *Amlapitta*. Most of the instant food items are *virudha*, *dushta* and by their continued and prolonged use results in *Amlapitta*. These foods unsettle the digestive fire and thus makes simple food also indigestible which in turn makes them behave like toxins, there by leading to digestive disorders. Digestive impairment can also occur due to suppression of natural urges, wrong application of evacuation measures and

also due to poor adaptation to seasonal changes and to a particular place.

Clinically the disease is characterized by *avipaka* (indigestion), *klama* (exhaustion), *uklesha* (nausea) *Tikta-amlaudgara* (bitter & sour taste erection), *gaurava* (feeling of heaviness of the body), *hrit-kantha-daha* (burning sensation in the chest & throat), *aruchi* (loss of appetite)². *Charaka* and *Kashyapa* have clearly indicated that, the *grahanidosha* and *amlapitta* occur in persons who cannot check the temptation for food.

These clinical features of *Amlapitta* closely resemble with condition known as Non ulcer dyspepsia or Functional dyspepsia³.

In our granthas, Acharyas suggested *shodhana* as well as *shaman*

chikitsa, with the drugs having *tikta-madhura rasa*, *madhura -vipaka*, *sheeta -veerya* and *laghu, ruksha* property with *kaphapittahara* action, for the treatment of *Amlapitta*. This study aims at the management of *Amlapitta* by *shaman vidhi* using *Aragwadhamrithadi kashaya* with *Avipathichoornam* which is gastroprotective⁴. The ingredients of both these drugs are easily available, economical and the treatment using them will not affect the daily routine of the individual which would thus provide better patient compliance.

AIM:

To assess the efficacy of adding *Avipathichoorna* to *Aragwadamrithadikashaya* in the management of *Amlapitta*.

OBJECTIVE

- 1) To evaluate clinical efficacy of *Aragwadamrithadi kashaya* in *Amlapitta*.
- 2) To evaluate clinical efficacy of *Avipathi choorna* in *Amlapitta*.
- 3) To evaluate clinical efficacy of a comprehensive treatment of *Amlapitta* using *Aragwadamrithadi Kashaya* and *Avipathi chooram* combination.
- 4) To compare and assess the clinical efficacy of *Aragwadamrithadi Kashaya/Avipathi choorna* with combined therapy of *Aragwadamrithadi Kashaya* and *Avipathi choorna* independently administered.

A) MATERIALS

Aushadayogas: *Avipathichoorna* and *Aragwadamrithadi Kashaya*

Table 1 *Aargwadhaamrithadhikashaya*⁵

SI No	Botanical name	Sanskrit name	Part used	Proportion
1	<i>Cassia fistula</i>	<i>Aragwada</i>	Bark	1Part
2	<i>Tinosporacordifolia</i>	<i>Amritha/Guduchi</i>	Stem	1Part
3	<i>Acacia catechu</i>	<i>Khadira</i>	Heartwood	1Part
4	<i>Terminalia chebua</i>	<i>Hareethaki</i>	Fruit	1Part

Table 2 *Rasapanchaka of Aragwadamrithadikashaya*

SI No	Name	Rasa	Guna	Veerya	Vipaka	Karma
1	<i>Aragwada</i>	<i>Madhura Tiktha</i>	<i>Guru Singdha</i>	<i>Sheetha</i>	<i>Madhura</i>	<i>Pittashamana</i>
2	<i>Amritha</i>	<i>Ushna</i>	<i>Laghu Singha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Thridoshashamaka</i>
3	<i>Khadira</i>	<i>Tikta,kashaya</i>	<i>Rooksha</i>	<i>Sheetha</i>	<i>Katu</i>	<i>Kaphapittashamaka</i>
4	<i>Hareethaki</i>	<i>Pancharasa Kashaya X Pradhana</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridoshashamak (esp. Vatashmaka</i>

KwathaNirmanavidhi: *Kwatha nirmana* was done as per procedure described in *Sharangadhara samhita*.⁶ One *pala* of coarsely powdered drug was boiled 16 part of water in an earthenpot, over a mild fire till the liquid is reduced 1/8th of the

original quantity. *Kashaya* contains water soluble active principles of the herbs. Water soluble components are readily absorbed from intestines. Hence *kashaya* are very swift in action.

Table 3 AVIPATHICHOORNA⁷

SI No	Sanskrit Name	Botanical Name	Part used	proportion
1	<i>Shunti</i>	<i>Zingiberofficinale</i>	Rhizome	1part
2	<i>Maricha</i>	<i>Piper nigrum</i>	Fruit	1part
3	<i>Pippali</i>	<i>Piper longum</i>	Fruit	1part
4	<i>Ela</i>	<i>Elettariacardamomum</i>	Seed	1Part
5	<i>Twak</i>	<i>Cinnamomumzeylanicum</i>	Bark	1 Part
6	<i>Patra</i>	<i>Cinnamomumtamala</i>	Leaf	1Part
7	<i>Musta</i>	<i>Cyperusrotundus</i>	Rhizome	1Part
8	<i>Vidanga</i>	<i>Embelia ribes</i>	Fruit	1Part
9	<i>Amalakki</i>	<i>Embelia officinalis</i>	Fruit	1Part
10	<i>Trivrit</i>	<i>Operculinaturpethum</i>	Rootbart	9Part
11	<i>sharkara</i>	<i>Saccharum officinarum</i>		11 Part

Table 4 Rasapanchaka of Avipathi Choorna

Name	Rasa	Guna	Veerya	Vipaka	Karma
<i>Shunthi</i>	<i>KatuMadhura</i>	<i>LaghuSnigha</i>	<i>Ushna</i>	<i>Madhu ra</i>	<i>Vatakaphashama ka</i>
<i>Maricha</i>	<i>Katu</i>	<i>Laghu Rukha Tiikshna</i>	<i>Ushna</i>	<i>Madhu ra</i>	<i>Vatakaphashama ka</i>
<i>Pippali</i>	<i>Katu</i>	<i>Laghu Snigdha Tikshna</i>	<i>Anush na Shita</i>	<i>Madhu ra</i>	<i>Kaphavataashama ka</i>
<i>Ela</i>	<i>Katu Madhura</i>	<i>Laghu Ruksha</i>	<i>Shita</i>	<i>Madhu ra</i>	<i>Vatapittakaphsha mak</i>
<i>Twak</i>	<i>Katu,Tikta,madhura</i>	<i>Laghu Ruksha,Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavathasham aka</i>
<i>Patra</i>	<i>Katu,Tikta,madhura</i>	<i>Laghu,Ruksha,Tiks hna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavathasham aka</i>
<i>Musta</i>	<i>Tikta,Katu,Kashaya</i>	<i>Laghu,Ruksha</i>	<i>Shita</i>	<i>Katu</i>	<i>Kaphapittashama ka</i>
<i>Vidang a</i>	<i>Katu,Kashaya</i>	<i>Lahu,Ruksha,Tiksh na</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavathasham aka</i>
<i>Amalak</i>	<i>PancharasaAmlapra</i>	<i>Guru,Ruksha</i>	<i>Shita</i>	<i>Madhu</i>	<i>Tiroshadashamak</i>

<i>i</i>	<i>dana</i>			<i>ra</i>	<i>a</i>
<i>Trivith</i>	<i>Tikta, Katu</i>	<i>Laghu, Ruksha, Tiksha</i>	<i>Uhna</i>	<i>Katu</i>	<i>Kaphapittashamaka</i>
<i>Sharkara</i>	<i>Madura</i>	<i>Guru, Snigha</i>	<i>Shita</i>	<i>Madhu</i>	<i>Vatapradhana</i>

Dry herbs were nicely powdered in pulverizer machine sieved in mesh.

METHOD

Study Design:

Present study was open comparative clinical trial.

Source of Setting: Patient attending O P D of Karnataka Ayurveda medical college, hospital and Wenlock District Ayush hospital Mangalore.

Methods of collection of setting:

a) Sample size: 75 patients fulfilling the diagnostic and inclusion criteria irrespective of their gender, caste, religion, education status and socio-economic status was taken for the study. Registered patient was selected randomly by lottery method into three equal groups of minimum 25 patients each as A, B and C.

Group A: (Control group) Aaragwadamrithadi kashaya was given in two divided doses, of which 48ml in the morning in empty stomach and 48ml in the evening time for 21 days.

Group B: 96 ml of Aaragwadamrithadi kashaya was given in two divided doses, of which 48 ml was given in empty stomach in the morning and remaining 48 ml in the evening time for 21 days. Avipathi choorna 12 gms mixed with honey also was given in two divided dose for 21 days of which 6 gm after food in the morning and 6 gm at bedtime.

Group C: 12 gm of Avipathichoorna mixed with honey was given in two divided doses for 21 days of which 6gm after food in morning and 6 gm at bedtime.

b) Treatment period: Total duration of the treatment is of 21 days. The condition of the patients was observed before treatment and the progress of the treatment was again observed on the 7th, 14th and 22nd day.

Total study duration: 28days

Diagnostic criteria:

The patients were diagnosed based on: Signs & symptoms of the Amlapitta mentioned in Ayurveda *Granta*⁹ Avipaka, Klama, Uthklesha, Thikthaamlodgara, Gourava, Hrithkantadaha, Aruchi

d) Inclusion criteria:

1. Patients of both the genders
2. Patients aged between 16-60 years
3. Diagnosed cases of Amlapitta according to the features told in classics

e) Exclusion criteria:

1. Patients not fulfilling the criteria
2. Pregnant & Lactating women.
3. Patient who had chronicity for more than 5 years.
4. H/O Surgical intervention related gastrointestinal disorders.
5. Conditions which may interfere the study shall be avoided.

f) Intervention:

- 75 patients of Amlapitta was selected randomly and divided into three groups of 25 each, as Group-A, Group-B and Group C.

- **Group-A** was given Aaragwadamrithadi kashya alone.

- **Group-B** was given Avipathichoorna and Aaragwadamrithadi kashya.

- **Group-C** was given *Avipathi choorna* alone.
- Clinical assessment was done before the start of treatment, on the 7th, 14th, 22th 29th day.

g) Assessment criteria: The assessment was done on the basis of following Subjective parameters.

Subjective parameters: *Avipaka*, *Klama*, *Uthklesha*, *Thikthaamlodgara*, *Gourava*, *Hrithkantadaha*, *Aruchi*

Table 5. h) Treatment schedule:

i) Laboratory Investigations:

In Intervention drug	Sample size	Dose	Treatment Duration
<i>Argwadamrithadi kashaya</i>	25 patients	48 ml in empty stomach in the morning and 48 ml in the evening.	21 days
<i>Avipathi choorna</i> and <i>Agwadamrithadi kashaya</i>	25 patients	48ml in empty stomach in the morning and 48 ml in the evening. 12gm of <i>Avipathi choorna</i> with honey as two divided doses	21 days
<i>Avipathi choorna</i>	25 Patients	12gm of <i>Avipathi choorna</i> mixed with honey as two divided doses of which 6gm after food in morning and 6gm at bedtime	21days

Routine Haematological Investigation:

Hb% , TC, DC, ESR

Relevant investigations carried out as and when required.

ASSESSMENT CRITERIA: The condition of the Patients was assessed before treatment by thorough screening based on *lakshanas*, detailed history and Physical Examination. The changes after

treatment was also noted. The documentation was done in the respective case proforma. The improvement in the patient was assessed based on the *lakshanas* with respect to Subjective Parameters

For Assessment grading was given to the *lakshanas* according to Severity before, during, after treatment and Follow-up

Table No.6 Grading of the Subjective Parameters

Symptom	Normal (1)	Mild (2)	Moderate (3)	Severe (4)
<i>Avipaka</i>	Absent	Irregular digestion	Indigestion associated with Nausea	Indigestion associated with <i>Chardi</i> and <i>BhaktaDweshha</i>
<i>Klama</i>	Absent	Fatigued due to excretion and relieved by rest	Fatigued without excretion, more in the morning	Fatigue associated with heaviness
<i>Utklesa</i>	Absent	In relation with specific food	In relation with normal food	Associated with <i>chardi</i>
<i>Tiktodgara</i>	Absent	Associated with <i>Avipaka</i>	Associated with <i>Hrillasa</i>	Associated with <i>Kanthadaha</i>

<i>Amlodgara</i>	Absent	Associated with <i>Avipaka</i>	Associated with <i>Hrillasa</i>	Associated with <i>Kanthadaha</i>
<i>Gourava</i>	Absent	Feeling of heaviness in the early morning	Feeling of heaviness associated with <i>Avipaka</i>	Feeling of heaviness associated with <i>Klama</i>
<i>Hritdaha</i>	Absent	Retrosternal discomfort	Associated with pain	Associated with Gastric regurgitation
<i>Kanthadaha</i>	Absent	Associated with <i>Avipaka</i>	Associated with <i>Utklesha</i>	Associated with Gastric regurgitation
<i>Aruchi</i>	Absent	Loss of interest in intake of food	Aversion to the food	Nausea and sometimes vomiting after intake of food

STATISTICAL ANALYSIS:

Statistical Analysis was done by using Kruskal Wallis test ($p < 0.001$), and using Mann Whitney test ($p < 0.001$).

ASSESSMENT OF OVERALL EFFECT OF THE THERAPY:

For subjective parameters each symptom has been graded or scored with following rating method.

Table no 7 Assessment criteria

Sl.No	Symptoms / Complaints (Severity)	Severity scores
1	No Symptoms / Complaints	1
2	Mild Symptoms / Complaints	2
3	Moderate Symptoms / Complaints	3
4	Severe Symptoms / Complaints	4

OBSERVATION: In this clinical study 75 patient were registered. All of them have regular follow up. They were enrolled in a special case performa made for clinical study. Clinical trial was carried out methodologically and proper record of the observations was maintained. The objective of this study was to study the efficacy of adding *Avipathichoorna* with *Aaragwadhamrutadi Kashaya* in *Amlapitta vyadhi*. The assessment was carried out before and after treatment to evaluate the

total effect of treatment. Assessment criteria for this study were mainly subjective criteria which is *Amlapitta vyadhilakshanas*. All the observations were observed thoroughly. For the interpretation of the observations statistical analysis was done.

RESULTS

Median and Interquartile range (IQR) for total scores before treatment, after treatment and at the end of follow-up of the 3 groups:

Group	Before treatment		After treatment		End of follow up	
	Median	IQR	Median	IQR	Median	IQR
<i>Avipathichoorna</i>	27	4	17	3	11	1

<i>Aragwadamrithadikashaya + Avipathichoorna</i>	19	3	13	3	9	0
<i>Aragwadamrithadikashaya</i>	20	5	14	3	10	3

The median for all 3 groups are significantly different at the 2 time points, i.e., after treatment and end of follow up, using Kruskal Wallis test ($p < 0.001$).

Looking at pairwise difference between the groups, it is seen that *Avipathichoornam*

& *Aragwadamrithadikashayam + Avipathichoornam* are significantly different during after treatment and end of follow up, using Mann Whitney test ($p < 0.001$).

Comparing *Aragwadamrithadikashayam + Avipathichoorna*, significant difference is observed only at the end of follow up, using Mann Whitney test ($p < 0.001$).

Comparing *Avipathichoorna* & *Aragwadamrithadikashaya*, significant

difference is observed only after treatment, using Mann Whitney test ($p < 0.001$).

Comparing the medians, we can conclude that among the 3 groups, *Aragwadamrithadikashaya + Avipathichoorna* is better than *Avipathichoorna* both after treatment and at the end of follow up, and *Aragwadamrithadikashaya + Avipathichoorna* is better than *Aragwadamrithadikashaya* at the end of follow up.

Within each group, Wilcoxon signed rank test was performed to see whether there was a significant difference between before and after treatment.

Group	Z	P value
<i>Avipathichoorna</i>	-4.387	<0.001
<i>Aragwadamrithadikashaya + Avipathichoorna</i>	-4.414	<0.001
<i>Aragwadamrithadikashaya</i>	-4.429	<0.001

All the 3 treatment groups were significant in comparison of the total scores before and after treatment and looking at the medians we can conclude that the symptoms were significantly reduced after treatment.

Within each group, Wilcoxon signed rank test was performed to see whether there was a significant difference between before treatment and at the end of follow up.

Group	Z	P value
<i>Avipathichoorna</i>	-4.384	<0.001
<i>Aragwadamrithadikashaya + Avipathichoorna</i>	-4.399	<0.001
<i>Aragwadamrithadikashaya</i>	-4.388	<0.001

All the 3 treatment groups were significant in comparison of the total scores before treatment and at the end of follow up and looking at the medians we can conclude that the symptoms were significantly reduced at the end of follow up.

DISCUSSION: *Amlapitta* is a common gastric problem that is usually related with food habits and lifestyle. *Amlapitta vyadhi*, the detailed description of the disease is not found in the Brihatrayees whereas clear cut explanation can be found in the later treatises like *Madhavanidana*,¹⁰ *Kashyapa Samhitha*¹¹, *Yogarathnakara*¹² etc. while describing *samprapti* of *Amlapitta kashyapa* said that, *Nidana sevana* causes *Doshaprakopa*. *Doshaprakopa* creates *Mandagni* and due to this *Mandagni* ingested food becomes *Vidagdha* and *shuktibhava* and which create *Amlata* in *Amashaya* and this condition is called *Amlapitta*. *Acharya Kashyap* also gave the importance to *Desha* as a main causative factor of the *Amlapitta*. He said that in *Anupa Desha* *Amlapitta* seen mostly. The chief *Dosha* involved in the *Amlapitta* is *Pitta* & *Kapha*. Majority of the drugs have *Tikta* & *Kashaya rasa*, *Katu* & *Madhura Vipaka*, *Sheet* & *Ushna Virya* so they possess *Pitta KaphaShamaka* property and *Tridosha Shamaka* Property.

In *Amlapitta Rasadhatu* is affected. The property of *Deepan*, *Pachana karma* and *Tikta Rasa* of the drugs will directly act on the vitiated *Rasa dhatu* and useful to managing *Amlapitta vyadhi*. *Mandagni* and *Ajirna* create *Annavisha*, when it mixed with *Pitta Dosha* creates *Pittaja vyadhi* like *Amlapitta*. Most of the drugs have *Tikta Rasa*, *Deepan*, *Pachan Karma* which is useful in *Ama-Pachan* and *Agni* will be increased hence useful in *Amlapitta*

vyadhi.

Madhyamavastha is considered as *pitta prakopavaya* and thus, this age group is more prone to suffer from *pitta* predominant disease. Regarding the occupation wise distribution of patients, majority of patient were undergoing stressful life.

Aaragwadha:¹³ *Virechana* is basic *Doshopakrama* of *Pitta Dosha* and *Aaragwadha* is *Shreshta* in *Mruduvirechaka* dravyas and *stransan* is the main *Karma* of it. It exhibits *Sanshodhan Karma* in *Kapha-Pittajvikara*. Due to its *madhur*, *tikta rasa*, *madhura vipaka* and *sheeta virya* it acts as a *Pitta shamak*. Due to *Tikta rasa* it exhibits *Yakruta-uttejana Karma* and useful in *Aruchi*.

Guduchi:¹⁴ *Guduchi* acts as *Rasayan* and *Dhatvagnivardhana*. Due to *Rasayan Karma* it gives *bala* to *aashaya* which avoid *Punurudhbhava* of any disease. Because of its '*Vichitrapratyarabdha*' property it is *Tridoshashamaka*, *Raktagatakleda*, *Pitta*, *vishashamaka*. It exhibits *Deepan*, *Pachan*, *Pitta-saraka Karma* which is useful in *Prakruta Pitta nirmana* and it improves *Pachanakriya*. It reduces *Aamashayagataamlata* which is the main *Sampraptighataka* of *AmlapittaVyadhi*.

Haritaki:¹⁵ *Haritaki* is *Tridosha-shamaka*. It also exhibits *Rasayan Karma* by which it gives *bala* to *aashaya* and avoids *bala* to *aashaya* and avoids *Punurudhbhava* of disease. Due to *ruksha Guna* and *Kashaya rasa* (*Kashaya rasa* is *GrahiGunatmaka*) it reduces *Drava Pitta* which is responsible factor of *AmlapittaVyadhi*. It acts as *Deepana*, *Pachana*, *Yakrut-uttejana* which is useful to reduce *Agnimandya* and improve *Pachana-kriya*. It acts as

Anulomaka, Mrudu-rechan and because of this it is Vibandha-nashaka.

Khadira¹⁶: It exhibits the *Kapha-Pitta shamaka* activity by virtue of its *Tikta, Kashaya rasa* and *Sheeta virya*. It is useful in *Aruchi* due to its *Tikta Kashaya rasa*. Due to *Rukshaguna* it reduces *Drava Pitta* which is responsible for *Amlapitta*. So, all ingredients of *Aaragwadhamrutadi Kashaya* are useful in management of *Amlapitta*

AVIPATHICHOORNA: *Avipathi choorna* has 11 ingredients with having *lavanga, trivrit and sharkara*. It is indicated in indigestion, constipation, acidity, piles etc. Experimental study shows that hydroalcoholic and methanolic extract of stem bark extract of *trivrit* possess enhanced ulcer protective activities when compared with the standard drug ranitidine. In *Amlapitta* there is increased amount of vitiated pitta that cause the symptoms of indigestion sour and bitter belching, heart burn, anoxia etc. *Avipathi choorna* is more potent drug in the treatment of *Amlapitta* with unknown side effect.

In *Avipathikar choorna* drugs are *madhura thikta katu kashaya rasayuktha* and *madhura vipaka* and *sheetha veerya*. In *Amlapitta pittashamaka rasa veerya vipaka* present drugs needed.

The ingredient like *shunti, pippali, maricha* act as *deepana* and *pachana*, which relieves the *ama* and normalizes the vitiated *pitta* and eliminates the extra *pitta* from the body by its laxative effect. This is natural digestive tonic which helps in regularizing digestion process & cures acidity problem. *Avipathi choorna* soothes the stomach tissues and promotes normal. Comfortable levels of acidity during the digestive process. It also helps direct

apanavata downwards helping to promote post-meal esophageal comfort and healthy elimination. *Avipathichoorna* is pacifying vitiated *pitta dosha* and reducing the acidic media.

Research evidence shows that, *Avipathichoorna* possess significant gastro-protective activity.¹⁷

CONCLUSION

On the basis of results obtained it is concluded that adding *Avipathi choorna* to *Aragwadamrithadi kashaya* along with lifestyle modification helps in the treatment of this disease. Further studies are to be carried to ascertain about the recurrence of the disease following the treatment with these drugs.

REFERENCES

1. Charaka, Chakra Samhita Chikitsasthana Datta Chakrapani, with Ayurvedadipika commentary, New Delhi, Rastriya Sanskrit Sanstana 110058; 2006, pp5
2. Madhavakara Madhava Nidana, English translation by Prof. K. Srikanta Murthy, 4th Edition Varanasi Chaukhamba Orientalis II-Edition 2011, Pg 166-167.
3. V Stanghellini, NJ, Talley, RC Heading, KL Koch, JR Malagelada, GN Tytgat. Functional gastro-duodenal disorders. Gut 1999; 45 Suppl 2: 37-42. <http://dx.doi.org/10.1136/gut.45.2008.ii37>
4. Johnson Benito D, Senthilkumar C, Raphael Glince C, Venkitanarayanan R, Kattupparuthi Siraj. Gastroprotective Activity of Amlapitta, Research Journal of Pharmacognosy and Bi Phytochemistry, published; 2013-01-08, vol No 1 (2013) Page: 37-41
5. Nambhoothiri, Sriraman D, Chikitsamanjari, 5th Edition, Aiappuzha, Vidyarambham publishers July 2001 pp 332

6. Sharangadhara -Sharangadhara Samhita, K.R.Edited by Srikantamoorthy. Varanasi, Sharangadhara -Sharangadhara Samhita, K.R.Edited by Srikantamoorthy. Varanasi, Chaukambha Sanskrit Sansthan., III-Edition, 1997.pg 40
7. AshtangaHrudayam Composed by Vagbhata, Sarvangasundaycommentary, BhashagacharyaHarishastriParardakara Vaidya 8th Edition. Varanasi: ChaukhambhaOrientalia; 1993. Kalpasidh- isthanamVirechanaKalpam, Page743.
8. Sharangadhara -Sharangadhara Samhita, K.R.Edited by Srikantamoorthy. Varanasi, Chaukambha Sanskrit Sansthan, III-Edition, 1997.pg 40
9. MadhavakaraMadhavaNidana, English translation by Prof. K.Srikanta Murthy, 4thEdition Varanasi ChaukhambaOrientalis II-Edition 2011, Pg166-167.
10. MadhavakaraMadhavaNidana, English translation by Prof. K.Srikanta Murthy, 4thEdition Varanasi ChaukhambaOrientalis II-Edition 2011, Pg166-167.
11. KashyapaMaricha, KashyapaSamhita; Edited Tewari P V, with English Translationpg, 6th edition, Varanasi; Chaukambhavisvabharathi oriental publication, Uttar Pradesh.2002,Pg631-635.
12. Yoga ratnakara – with Vidyotini commentary, ChaukhambaSanskrit Series Varanasi, 1993, pg 236

13. Shastry J.L.N. DravyaGunaVijnana, Vol 2,Chaukambha orientalia, Varanasi, II Edition, 1997.pg40
14. Shastry J.L.N. DravyaGunaVijnana, Vol 2,Chaukambha orientalia, Varanasi, II Edition, 1997.pg40
15. Shastry J.L.N. DravyaGunaVijnana, Vol 2, Chaukambhaorientalia, Varanasi, II Edition, 2005.pg 228-232.
16. Shastry J.L.N. DravyaGunaVijnana, Vol 2, Chaukambhaorientalia, Varanasi, II Edition, 2005.pg 228-232.
17. JohnsonBenitoD, SenthilkumarC, RaphelGlinceC, VenkitanarayananR, Kattupparuthi,Siraj. Gastroprotective Activity of Amlapitta, Research Journal of Pharmacognosy and Bi Phytochemistry, published; 2013-01-08,vol No1(2013)Page:37-41

Corresponding Author:

Dr.Seena Kombilath, PG Scholar, Dept of Kayachikitsa, Karnataka Ayurveda Medical College, Mangalore
Email: kombilathseena@gmail.com

Source of support: Nil
Conflict of interest: None
Declared

Cite this Article as :[Kombilath Seena et al : Clinical Study to Evaluate the Combined effect of Avipathi Choorna with Aragwadamrithadi Kashaya in the Management of Amlapitha] www.ijaar.in : IJAAR VOLUME III ISSUE X SEP –OCT 2018 Page No:1497-1506