



**A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF PATOLADI
KWATHA AND PAARIBHADRADADI KWATHA IN THE MANAGEMENT OF
AMLAPITTA**

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ABSTRACT

Amlapitta is one among the *Annavaha Sroto Dushti Vikara* characterized by *Avipaka, Klama, Utklesha, Tiktaamlodgara, Gaurava, Hritkantadaha* and *Aruchi*. The *Laksana* of *Amlapitta* can be correlated with the symptoms of Hyperacidity. The dictionary meaning of hyperacidity refers to excessive acidity in gastro intestinal tract, especially in the stomach, leading to burning sensation. The treatment modalities for *Amlapitta* includes *Sodhana Chikitsa* and *Shamana Chikitsa*. The present study intends to clinical study to evaluate the efficacy of *Shamanoushadhi* for which *Patoladi Kwatha* and *Paaribhadradi Kwatha* were selected for the study. The objective of the study is to evaluate and compare the therapeutic efficacy of *Patoladi Kwatha* and *Paaribhadradi Kwatha* in the management of *Amlapitta*. A total of 40 patients who fulfilled the inclusion criteria were selected and randomly assigned into two groups i.e., Group A and Group B, comprising of 20 patients each. Group A and Group B were administered *Patoladi Kwatha* and *Paaribhadradi Kwatha* respectively. 24ml *Kwatha* was given twice daily – before breakfast and before dinner for 14 days. Follow up was done on the 7th day after intervention. The *Lakshana* of *Amlapitta* were observed, recorded and assessed at before treatment, after treatment and after follow up. Results were statistically analyzed on subjective parameter and were highly significant ($p < 0.001$) ‘after treatment’ and significant ($p < 0.05$) in all the parameters at ‘follow-up’ within the groups and was non-significant ($p > 0.05$) between the groups.

KEYWORDS: *Amlapitta; Patoladi kwatha; Paaribhadradi Kwatha; Hyperacidity.*

INTRODUCTION

The objective of Ayurveda is to maintain health in respect to physical, mental, social and spiritual by adopting preventing and promoting measures as well as to treat the disease with its various curative approach.

A balanced diet and regular exercise are the key for proper digestion. In current era, life style changes, increased workload and stress have led to changes in food habits contributing to the increased incidence of the disease. *Amlapitta* is one among them. *Amlapitta* is *Pitta Pradhana Vyadhi* and one among the *Annavaha Sroto Dushti Vikara* characterized by *Avipaka, Klama, Utklesha, Tiktaamlodgara, Gaurava, Hritkantadaha* and *Aruchi*¹ and if left untreated, it leads to several complications like *Jwara, Atisara, Pandutwa, Shula, Shotha, Aruchi, Bhrama*².

The *Laksana* of *Amlapitta* can be correlated with the symptoms of Hyperacidity. The dictionary meaning of hyperacidity refers to excessive acid secretion in gastro

intestinal tract, especially the stomach, leading to burning sensation³. Hyperacidity affects about 20% of the adults who report weakly episodes of heartburn. The prevalence of heartburn and other acid reflux disease rose nearly 50% over the last decade⁴. The line of treatment as per allied science is life style changes, use of H_2 receptor blocking agents and Proton Pump Inhibitors(PPI).

The treatment modalities in Ayurveda includes *Sodhana Chikitsa* and *Shamana Chikitsa* of which *Shamanoushadhi* was selected. *Patoladi Kwatha*⁵ having the ingredients *Patola, Shunti* and *Dhanyaka* has *Kapha Pittahara* property. *Paaribhadradi Kwatha*⁶ has the ingredients - *Paaribhadra Dala* and *Amalaki Phala*, *Paaribhadra Dala* has *Pittarogaghna* property and *Amalaki Phala* has *Madura Vipaka* which is useful in *Pittaja Vikara*. Considering all these points the study was planned to evaluate the efficacy of *Patoladi Kwatha* and *Paaribhadradi Kwatha* in management of *Amlapitta*.

OBJECTIVES OF THE STUDY

- To study the efficacy of *Patoladi kwatha* in the management of *Amlapitta*.
- To study the efficacy of *Paaribhadradi kwatha* in the management of *Amlapitta*.
- To compare and evaluate the therapeutic efficacy of both the group.

MATERIAL AND METHODS

40 patients of either sex with clinical features of *Amlapitta* coming under the inclusion criteria approaching the OPD & IPD of SKAMCH&RC, Bengaluru were selected for the study.

The sample collection was initiated with post approval from the Institutional Ethics Committee.

INCLUSION CRITERIA

- Patients within the age group 20-70 years of either sex.
- Patients with *samanya lakshanas* of *Amlapitta* will be sselected.

EXCLUSION CRITERIA

- Pregnant women and lactating mother.
- Complications which will intervene the course of treatment.
- Patients suffering from other systemic diseases which interfere with the course of treatment.

INTERVENTION

40 patients of *Amlapitta* who fulfilled the inclusion criteria were selected and randomly assigned into two groups comprising of 20 patients each.

Group A

The patient of this group was given with 24 ml of *Patoladi Kwatha* in the morning and evening before food for 14 days.

Group B

The patient of this group was given with 24 ml of *Paaribhadradi Kwatha* in the morning and evening before food for 14 days.

ASSESSMENT CRITERIA

Assessment was done based on the clinical features of *Amlapitta* as per the case proforma and assessment will be done Before Treatment (BT)-on 1st day, After Treatment(AT) - 15th day and After Follow up (AF)-on

22nd day.

STATISTICAL ANALYSIS

Statistical analysis was done using SPSS VER.20.

OBSERVATION

Clinically diagnosed 40 patients of *Amlapitta* were randomly selected and registered under Group A and Group B with 20 subjects in each group.

In the present clinical study, maximum subjects were female (62.5%) belonging to the middle socio-economic status (45%), married (87.5%) and having mixed nature of diet (52.5%). 80% had addiction to Tea/Coffee, 12.5% to Alcohol, 7.5% to Smoking. Majority of subjects were of *Pittakapha Prakruti* (50%) with *Madhyama Sara* (100%), *Samhanana* (70%), *Pramana* (97.5%), *Satmya* (92.5%), *Satwa* (100%), *Abhyavaharanaa Shakti* (75%), *Avara Jarana Shakti* (60%), *Madhyama Vyayama Shakti* (52.5%) and *Vaya* (100%). 52.5% had *Mandagni*, 47.5% had *Vishamaagni*, 50% had *Madhyama Koshta*, 47.5% had *Krura Koshta*, 2.5% had *Mrudu Kosta*.

Aharaja Nidana – 100% patients were indulging in *Katu Amla Rasa Pradana Ahara*, 75% were having *Atisnidha Ahara*, 57.5% were having *Adhyashana*, 55% were having *Abhishyanda Ahara*, 55% were having *Vishamashana*, 45% were having *Viruddhahara*, 35% were having *Vidahi Annapana*, 35% were having *Pramitashana*, 35% were having *Kulatha Sevana*, 32.5% were having *Anashana*, 27.5% were taking *Antarodakapana* and 17.5% were having *Atipramana Bhojana*. *Viharaja Nidhana* – 55% were doing *Vegadharana*, 50% were doing *Diwaswapna*, 25% were doing *Ratrijagarana*. *Manasika Nidhana* – 65% were having *Chinta*, 30% were having *Shoka*, 5% were having *Krodha*, 5% were having *Bhaya* and presenting with the *Samanya Lakshana* of *Amlapitta*.

RESULTS

The parameters considered for the clinical study were subjected to Wilcoxon Sign rank test to compare within the groups and Mann Whitney 'U' test to compare the Mean difference values between the groups at different time points like before treatment(BT), after treatment (AT) and at follow-up(AF). The differences in the mean values were considered highly significant at $p < 0.001$ and $p < 0.01$, Significant at $p < 0.05$ and Non- significant at $p > 0.05$.

Effect of treatment on Avipaka in between the Groups

Avipaka	Group A		Group B		Mann Whitney U	Z Value	p Value	Remark
	MR	SR	MR	SR				
BT	19.15	383.0	21.85	437.0	173.000	-0.760	0.447	NS
AT	19.08	381.5	21.92	438.5	171.500	-0.886	0.376	NS
AF	20.10	402.0	20.90	418.0	192.000	-0.240	0.811	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group A is smaller, hence reduction of *Avipaka* in group A is comparatively better than group B.

Effect of treatment on *Klama* in between the Groups

<i>Klama</i>	Group A		Group B		Mann Whitney U	Z Value	p Value	Remark
	MR	SR	MR	SR				
BT	24.48	489.5	16.52	330.5	120.500	-2.282	0.023	S
AT	22.70	454.0	18.30	366.0	156.000	-1.486	0.137	NS
AF	23.68	473.5	17.32	346.5	136.500	-2.034	0.042	S

There is significant difference in between the groups statistically at BT, AF (p value <0.05), & no significant difference between the groups at AT (p value >0.05) however mean rank of group B is smaller, hence reduction of *Klama* in group B is comparatively better than group A.

Effect of treatment on *Utklesha* in between the Groups

<i>Utklesha</i>	Group A		Group B		Mann Whitney U	Z value	p Value	Remark
	MR	SR	MR	SR				
BT	21.0	420.0	20.00	400.0	190.30	-0.313	0.754	NS
AT	20.5	411.5	20.42	408.5	198.500	-0.065	0.948	NS
AF	20.5	410.5	20.48	409.5	199.500	-0.022	0.983	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group B is smaller, hence reduction of *Utklesha* in group B is comparatively better than group A.

Effect of treatment on *Amlodgara* in between the Groups

<i>Amlodgara</i>	Group A		Group B		Mann Whitney U	Z Value	p Value	Remark
	MR	SR	MR	SR				
BT	19.88	397.5	21.12	422.5	187.500	-0.384	0.701	NS
AT	21.88	437.5	19.12	382.5	172.500	-0.823	0.411	NS
AF	21.12	422.5	19.88	397.5	187.500	-0.384	0.701	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group B is smaller, hence reduction of *Amlodgara* in group B is comparatively better than group A.

Effect of treatment on *Gourava* in between the Groups

<i>Gourava</i>	Group A		Group B		Mann Whitney U	Z Value	p Value	Remark
	MR	SR	MR	SR				
BT	22.62	452.5	18.38	367.5	157.500	-1.212	0.226	NS
AT	22.65	453.0	18.35	367.0	157.000	-1.540	0.124	NS
AF	22.95	459.0	18.05	361.0	151.000	-1.531	0.126	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group B is smaller, hence reduction of *Gourava* in group B is comparatively better than group A.

Effect of treatment on *Hritdaha* in between the Groups

<i>Hritdaha</i>	Group A		Group B		Mann Whitney U	Z Value	p Value	Remark
	MR	SR	MR	SR				
BT	21.22	424.5	19.78	395.5	185.000	-0.419	0.675	NS
AT	21.92	438.5	19.08	381.5	171.500	-0.886	0.376	NS
AF	20.55	411.0	20.45	409.0	199.000	-0.030	0.976	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group B is smaller, hence reduction of *Hritdaha* in group B is comparatively better than group A.

Effect of treatment on Kantadaha in between the Groups

Kantadaha	Group A		Group B		Mann Whitney U	Z value	p value	Remark
	MR	SR	MR	SR				
BT	19.60	392.0	21.40	428.0	182.000	-0.589	0.556	NS
AT	19.50	390.0	21.50	430.0	180.000	-0.874	0.382	NS
AF	19.55	391.0	21.45	429.0	181.000	-0.681	0.496	NS

No significant difference in between the groups statistically at BT, AT and at AF (p value >0.05), however mean rank of group A is smaller, hence reduction of Kantadaha in group A is comparatively better than group B.

Tikta-udgara and Aruchi were found in less number of patients (Tikta-udgara - 4 in Group A and nil in Group B; Aruchi - 2 in Group A and Group B) undertaken for the study and hence were not statistically analyzed. It was observed that the study showed symptomatic relief in these symptoms.

DISCUSSION

Amlapitta is Pitta Pradhana Vyadhi of Annavaaha Srotas and is more common in current scenario due to unhealthy diets and regimens. Understanding Ahara Parinamakara Bhava, Ahara Paka Kriya and inculcating Ahara Vidhi Vidhana, Asta Ahara Vidhi Visheshayatana is important to maintain healthy life and to prevent the disease like Amlapitta.

Avipaka is explained as "Aharasya Apachanam"⁷ is the result of Agnimandya due to Samana Vayu, Pachaka Pitta and Kledaka Kapha Vikruti which are essential for Samyak Ahara Paka. Klama is explained as "Anayasa Shrama"⁸ which means the person feels exhausted without any exertion. This suggests the presence of Amadosha due to which there is insufficient Poshana of Rasadi Dhatu. Utklesha means "Shlesma Nishtivanam"⁹ indicates the Kapha Prakopa and Ama Ajirna Avastha. Due to Pratiloma Gati of Vata, the Prakupita Kapha moves in Urdwa Gati resulting in Shlesma Nishtivana. In Sama Pitta Avastha, the Amla and Drava Guna of Pitta increases and due to Pratiloma Gati of Vata results in Tiktamlodgara. Gourava is one among the Samanya Ajirna Lakshana¹⁰ which indicates the Kleda Guna Vrudhi of Kapha. Hrit Kanta Daha is said to be the resultant of Sama Pitta¹¹. Due to Agnimandya, Ahara remains in Ama Avastha. This along with Pitta causes Daha. Aruchi is the manifestation of the Sama Anna Rasa.

PROBABLE MODE OF ACTION OF PATOLADI KWATHA AND PAARIBHADRADI KWATHA

Drugs in the Patoladi Kwatha are Katu Tikta Rasa Pradhana, Katu Rasa does Agni Deepana, Ama Panchana, Kleda Shoshana. Tikta Rasa is the best choice to be selected in Ama Avastha as it has Kleda, Sleshma Upashoshana Karma, Kapha Pitta Shamaka. Patola, Dhanyaka, Shunti having Ushna Virya which is Agni Mahabhuta Pradhana corrects Mandagni and does Kapha Vata Shamana. Dhanyaka and Nagara having Madhura Vipaka acts Vata-pitta Shamaka and it is Ruchya,

Deepana and Panchana reduces Aruchi. Patola acts as Pittakapha Shamaka, cures Aruchi. Potalamula has the action of Virechana dose Pitta Rechana, Patola Naala is Shleshmahara, its Patra is Pittahara and Patolaphala is Tridhosahara. Dhanyaka does Deepana and cures Hrullasa, Aruchi and Daha. Nagara acts as Agni Deepana and Ama Pachaka and it is Kapha Shamaka, cures Aruchi. Thus Patoladi Kwatha is Tridosahara, acts on Agni, promotes Amapachana and reliefs Gourava, Klama and Tiktamlodgara.

Paaribhadradi Kwatha (Group B)

Paaribhadra having Katu Tikta Rasa acts as Vata-kapha Shamaka. Tikta Rasa, Ushna Virya and Katu Vipaka of Paaribhadra does Deepana, Pachana. Thus rectifies Agni Dusti, does Amapachana and cures Aruchi. Paaribhadra Patra is Pittarogaghna helps in treating Amlapitta which is Pitta Pradhana Vyadhi. Amalaki has Lavana Varjitha Pancha Rasa, Sheeta Ruksha Guna and it is Tridosahara i.e., Vata Shamana by its Amla and Madhura Rasa, Pitta Shamana by Madhura Rasa and Sheeta Guna, Kapha Shamana by Kashaya Rasa and Rooksha Guna. Amalaki by its Amla Tikta Rasa and Ruksha Guna does Ama Pachana and Kleda Harana there by improves Agni and reliefs the symptoms like Gourava and Aruchi. Madhura Rasa, Sheeta Guna, Sheeta Virya of Amalaki pacifies the Dravatva and Amlatva of vitiated Pitta Dosha, thereby it gives relief in the symptoms like Hritkantadaha, Amlodgara, Hrullasa. Thus Paaribhadradi Kwatha is Tridosahara, acts on Agni, promotes Amapachana and reliefs the symptoms of Amlapitta.

CONCLUSION

- Acharya Kashyapa was the first to explain Amlapitta as a separate disease. Amlapitta is a disease of Abhyantara Roga Marga and is a Pitta Pradhana Vyadi characterized mainly by Avipaka, Klama, Utklesha, Tikta-Amlodgara, Hrit-KantaDaha Gourava and Aruchi.
- The present study was a comparative clinical study wherein 40 patients of Amlapitta were selected and randomly assigned into two groups; Group A and Group B. Patients in Group A were given Patoladi Kwatha and patients in Group B were given Paaribhadradi Kwatha for the period of 14 days. The study was statistically analyzed before treatment (1st day), after treatment (15th day) and after follow up (22nd day).

- In the present study maximum patients were female belonging to middle socio-economic status, Hindu religion, married and presenting with the maximum *Samanya Lakshana* of *Amlapitta* with average duration of less than 1 year. Majority were of *Kaphapittaja Prakruti* with *Madhyama Sara, Satva, Samhanana, Pramana, Satmya, Vyayama Shakti, Abhyavaharana shakti* and *Avara Jarana Shakti*.
- The results were found to be statistically highly significant ($p < 0.001$) before treatment to after treatment and statistically significant after follow up on all the parameters within the groups A and B and statistically no significant difference was found between the groups.
- Certain patients complained of *Lakshanas* like *Hrit-Kanta Daha, Amlodgara* during the follow-up period. Recurrence found may be due to the immediate indulgence of *Aharaja, Viharaja* and *Manasika Nidana*. This shows the importance of *Pathyapathya* to be followed in this disease.

Based on the observation and results the following hypothesis were accepted.

- There is significant effect of *Patoladi Kwatha* in the management of *Amlapitta*.
- There is significant effect of *Paaribhadradi Kwatha* in the management of *Amlapitta*.
- There is no significant difference between *Patoladi Kwatha* and *Paaribhadradi Kwatha* in the management of *Amlapitta*.

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