

A COMPARATIVE CLINICAL STUDY ON THE EFFECT OF PATOLADI KWATHA AND YAVADI KWATHA IN THE MANAGEMENT OF URDHVAGA AMLAPITTA (HYPERACIDITY)

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ABSTRACT

Background & Objective: *Amlapitta* is among *Annavahasrotasovyadi*. Improper food habits, stress are considered as causative factors. Hyperacidity is a condition where similar symptoms to that of *Urdhvaga Amlapitta* are seen. *Patoladi kwatha* & *Yavadi kwatha* are two drugs possess *pittahara*, *amapachana* & *Agnivardaka* properties will help in treating *Urdhvaga Amlapitta*. **Method-** A Single blind randomized comparative clinical study. Totally 40 patients of *Urdhvaga Amlapitta* were selected, divided into two groups equally- Group A treated with *Patoladi kwatha* (Control-drug), and Group B with *Yavadi kwatha* (trial-drug) with *Anupana* honey for 15days. **Result-** Statistically *Yavadi kwatha* showed better symptomatic relief -*Avipaka*(90%), *klama*(66%), *tiktamlodgara*(84%), *utklesha*(88%), *gourava*(87%), *hritkantadaha*(93%), *Aruchi*(88%) than *Patoladi kwatha*- *Avipaka*(75%), *klama*(90%), *tiktamlodgara*,(66%), *utklesha*(86%), *gourava*(95%), *hritkantadaha*(75%), *Aruchi*(78%). Comparing the effect of *Patoladi kwatha* & *Yavadi kwatha*, there was no significant difference obtained. **Conclusion-**Both the drugs found to be highly effective. Statistically symptomatic relief found to be more effective in *Yavadi kwatha* than *Patoladi kwatha* in this study.

Key words: *Urdhvaga Amlapitta*, Hyperacidity, *Patoladi kwatha*, *Yavadi kwatha*.

INTRODUCTION

“*Amlapittam cheti Amlagunoundriktam pittam*”
(Chakrapani)

That means the increased *Amla guna* of *pitta* or *udrikta pitta* is known as *Amlapitta*¹. It is considered to be one among *Annavaha srotovyadhi*². Acharya Sushruta, mentioned that the disorder of *pitta* of *Annavaha srotas* may lead to *vidaha* of *Ahara*. Acharya Kashyapa, mentioned that the *vidagdha Amarasa* turns to *shukta* and this *shukta annarasa* is retained in *amashaya* where

vrudha pitta combines with this *shukta annarasa* and further it leads to *Amlapitta*. According to Acharya Madhavakara, *Amlapitta* is a *vayadi* where *pitta* will aggravate and further gets *vidagdha* due to *Vridha*, *Dushta*, *Amla*, *Vidahi* and *pitta vrudhakara ahara vihara* and even classified *Amlapitta* into two they are *Urdhvaga* and *Adhoga Amlapitta*³. Its *nidana* can be divided into *Aharaja*, *Viharaja*, *Manasika* & *Agantuja hetu*. Acharya kashyapa told that due to *nidana sevana* there will be *prakopa* of *tridoshas* being responsible for *Agnimandhya*, leading to the formation of *Amarasa*. So

formed *Amarasa* gets retained in the *Amashaya* leading to formation of *Annavaisha* which combines with the vitiated *pitta* and undergoes *shuktatva* resulting in the manifestation of *Amlapitta*. *Acharya Charaka* included *Amlapitta* while explaining *samprapti* of *grahani*⁴.

SAMPRAPTI GHATAKA OF AMLAPITTA

Dosha : Pitta : Pitta Pradhana, Samana Vayu & Kledaka Kapha

- *Dushya : Rasa*
- *Agni : Jataragni*
- *Ama : Jataragni janya Ama*
- *Srotas : Annavaaha , rasavaaha , Pureeshavaaha*
- *Srotodusti Prakara : Sanga, Vimargagamana, Atipravrutti*
- *Sancharasthana : Annavaaha Srotas*
- *Udhhavasthana : Amashaya*
- *Vyaktasthana : Sarvasharira*
- *Adhistana : Amashaya*
- *Rogamarga : Abhyantara.*

Amlapitta is a disease having symptoms like *avipaka, klama, utklesha, tikta-amlodgara, gourava, hritkanthadaha, aruchi*⁵. Though it is not possible to find exact correlation of disease in contemporary system of medicine but some similarities with symptoms of *Amlapitta* and Hyperacidity is seen. *Amlapitta* is a functional disorder which has to be differentiated from other disease having similar features. They are *Vidagdajeerna, Pittaja Shoola, Annadrava shoola, Parinama shoola*.

Hyperacidity is condition where there will be excessive amount of Hydrochloric acid seen in stomach mucosa, where a typical feeling of restlessness, Nausea and vomiting, Sour belching, Loss of appetite, Indigestion are symptoms of the disease. This disease can be from other disease having similar features. They are:

Acute Gastritis: In this condition there will be inflammation of gastric mucosa seen with excessive secretion of acid resulting in local irritation of mucosa membrane and the gastric mucosa gets inflamed. Pain and burning sensation are main symptoms.

GERD: Gastro-Esophageal Reflux is caused by recurrent reflux of gastric contents into the distal esophagus. Typical symptoms heat burn and acid regurgitation with abdominal pain associate with hiatus hernia are seen.

Peptic Ulcer disease: Peptic ulcer are open sores that develops in lining of stomach (gastric ulcer)and in upper part of small intestine(duodenal ulcer) with common symptom stomach pain other symptoms like nausea , vomiting blood , loss of appetite etc .

MATERIAL AND METHODS

Criteria for Assessment of *Urdhvaga Amlpitta*:

- a) Subjective parameters-Grading was done on the basis of signs and symptoms mentioned in *Ayurvedic* text & trail drug was assessed on that basis.
- b) Objective parameters-Routine blood examination – Hb%, TRBC, TLC, DLC, Free HCL and total HCL estimation and endoscopy wherever needed.

Criteria for Selection of Patients-

The diagnosis was done on the basis of clinical signs & Symptoms mentioned in *Ayurvedic* classics and also based on special proforma.

METHOD OF COLLECTION OF DATA

1. **Study Design:** Single blind randomized Comparative clinical study for 15 days.
2. **Sample Size:** The study was done in 40 patients with 20 patients in two groups for clinical trial.

Source of data: Patient who will fulfill the inclusion criteria were selected from OPD & IPD of Muniyal Institute of Ayurveda Medical Science and Hospital, Manipal.

ALLOCATION OF GROUP:

Patients were randomly selected in two groups A & B with 20 patients in each group.

Group A (Control Group)

Group A (Control Group) was given *Patoladi Kwatha*, 50 ml twice a day with *Anupana-Honey* (6ml), half an hour before Food (Morning & evening).

Group B (Trail Group)

Group B (Trail Group) was given *Yavadi Kwatha*, 50 ml twice a day with *Anupana-Honey* (6ml), half an hour before Food (Morning & evening).

Clinical assessment -will be done before the treatment, after the treatment, follow-up after 7days of treatment.

INCLUSION CRITERIA

- Patients fulfilling the diagnostic criteria of *Urdhvaga Amlapitta*.
- Patients between the age group 18 to 60 years.

EXCLUSION CRITERIA

- Patients below 18 and above 60 years.
- Chronicity -more than 2 years.

SCORING PATTERN

SI NO	CRITERIA	DETAILS	SCORE
1	<i>Avipaka</i>	No indigestion	0
		Digests normal usual diet in 9hrs	1
		Digests normal usual diet in 12hrs	2
		Digests normal usual diet in 24 hrs	3
2	<i>Klama</i>	No tiredness	0
		Feel tired after exertion work	1
		Feel tired normal work	2
		Feel tired even after taking rest	3
3	<i>Tikta amlodgara</i>	No sour and bitter belching	0
		Sour and bitter belching after taking spicy food	1
		Sour and bitter belching after taking any kind of food	2
		Sour and bitter belching having no relation with food intake	3
4	<i>Utklesha</i>	No nausea	0
		Feel nausea after some peculiar food	1
		Feel nausea after eating all kind of foods	2
		Full day nausea, not related to eating	3
5	<i>Gourava</i>	No feeling heaviness in body	0
		Heaviness after taking more quantity of heavy food	1
		Heaviness after taking light food	2

- Patients having chronic debilitating disease.
- Patients having organic disease like gastric ulcer and duodenal ulcer.
- Pregnant and lactating women.

WITHDRAWAL CRITERIA

- Any adverse drug reactions of the drug will be withdrawn.

ROUTINE EXAMINATION & ASSESSMENT

Complete detailed history and physical examination of patients was recorded as per the Proforma. Clinical assessment was done before treatment, after treatment and even after follow up.

PATHYA APATHYA

All patients were strictly kept on specifically prescribed diet & and were instructed to avoid the causes of *Urdhvaga Amlapitta* as per the classics.

		Heaviness even on empty stomach	3
6	<i>Hrit kanta daha</i>	no burning sensation	0
		Burning sensation after taking of spicy food	1
		Burning sensation even after intake of normal food	2
		Burning sensation even on empty stomach	3
7	<i>Aruchi</i>	No anorexia	0
		Eat food only two times without any snacks in between	1
		Eat food only one times without any snacks in between	2
		Having no feeling of appetite	3

STATISTICAL ANALYSIS:

For assessing the improvement of symptomatic relief and to analyze statistically, the observations were recorded before and after treatment and after follow up. The data was analyzed statistically by using Non parametric test. To analyze the result within the group A & B- **Wilcoxon signed rank test** is used. To analyze the result between the groups A & B, **Mann- Whitney test** is used.

OBSERVATION AND RESULTS:

It is observed that the incidence was highest in the age group of 40-60 yrs constituting 50% of total number of patients. In the sample taken for study, 57.5 %

patients were male & 42.5 % were females. 97.5 % patients belonged to Hindu community, Majority of the patients belong to middle class i.e. 77.5 % .77.5% have no addiction, 2.5 % had smoking & 17.5% had alcohol addiction. 47.5% patients were under stress. 10% were having irregular bowel habit and 2.5% were constipated.17.5% patients were of *Vata pitta prakruti and Pitta kaphaja* , 65% patients were of *vata kaphaja* .90% patients were of *Madhyam samhanana* ,92.5 % patients were of *Madhyama satva*.92.5% patients were of *Madhyam satmya*. 90% patients had *Madhyam Abhyavaharana Shakti* and 55% patients had *Madhyam Jarana shakti* .

Table 1: *Patoladi Kwatha* (Group A) effect of therapy on subjective criteria in 20 patients of *Urdhvaga Amlapitta*.

Criteria	Mean BT	Mean AT	Diff	% of relief	SD	SEM	P Value	Result
<i>Avipaka</i>	1.0	0.25	0.75	75	0.44	0.09	0.0002	ES
<i>Klama</i>	0.80	0.21	0.95	90.47	0.53	0.12	0.078	QS
<i>Tiktamlodgara</i>	2.0	0.7	1.65	66.6	0.92	0.20	<0.0001	ES
<i>Utkesha</i>	1.2	0.4	0.8	86.6	0.59	0.13	0.0002	ES
<i>Gourava</i>	1.45	0.5	0.95	65.517	0.6882	0.1539	0.0017	VS
<i>Hritkantadaha</i>	1.85	0.45	1.4	75.67	0.759	0.169	0.0002	ES
<i>Aruchi</i>	0.7	0.15	0.55	78.57	0.366	0.0819	0.0020	VS

Table 2: *Yavadi Kwatha* (Group B) effect of therapy on subjective criteria in 20 patients of *Urdhvaga Amlapitta*.

Criteria	Mean BT	Mean AT	Diff	% of relief	SD	SEM	P Value	Result
<i>Avipaka</i>	1.05	0.10	0.95	90.47	0.30	0.06	<0.0001	ES
<i>Klama</i>	0.75	0.25	0.5	66.6	0.55	0.25	0.0078	VS
<i>Tiktamlodgara</i>	1.95	0.3	1.65	84.61	0.57	0.12	<0.0001	ES
<i>Utkesha</i>	1.3	0.15	1.15	88.46	0.366	0.081	<0.0001	ES
<i>Gourava</i>	1.2	0.15	1.05	87.5	0.366	0.081	0.0001	ES
<i>Hritkantadaha</i>	1.6	0.1	1.5	93.75	0.30	0.0688	<0.0001	ES
<i>Aruchi</i>	0.45	0.05	0.4	88.8	0.223	0.0500	0.0078	VS

Table 3: Inter group comparison in 40 patients.

Symptoms	Sum of Rank		Mean		SD		Mean Diff	U value	p value	Result
	G.A	G.B	G.A	G.B	G.A	G.B				
<i>Avipaka</i>	440.0	380.0	0.25	0.10	0.44	0.30	0.15	170.00	0.4042	NS
<i>Klama</i>	372.5	407.5	0.10	0.25	0.53	0.55	0.04	182.50	0.8377	NS
<i>Tiktamlodgara</i>	456.0	364.0	0.7	0.3	0.92	0.57	0.4	154.00	0.2077	NS
<i>Utkesha</i>	451.5	368.5	0.4	0.15	0.59	0.36	0.25	158.50	0.2509	NS
<i>Gourava</i>	463.0	357.0	0.50	0.15	0.68	0.36	0.35	147.00	0.142	NS
<i>Hritkantadaha</i>	461.0	359.0	0.45	0.10	0.75	0.30	0.35	149.00	0.155	NS
<i>Aruchi</i>	430.0	390.0	0.15	0.05	0.36	0.22	0.1	180.00	0.576	NS

DISCUSSION

Group A: Patients treated with *Patoladi kwatha*, extremely significant relief seen in symptoms like *Tiktamlodgara*(66%), *Hritkantadaha*(75%), *Utklesha*(86%) while very significant relief was found in *Avipaka*(75%), *klama*(90%), *Gourava*(95%) & *Aruchi*(78%).

Group B: Patients treated with *Yavadi kwatha*, extremely significant relief seen in symptoms like *Avipaka*(90%), *Tiktamlodgara*(84%), *Hritkantadaha*(93%), *Utklesha*(88%), while very significant relief in *klama*(66%), *Gourava*(87%) & *Aruchi*(88%).

- **Probable mode of Action of *Patoladi Kwatha*⁶ (Control Group A):** The contents of this

medication are *Patola*, *Triphala* and *nimba*. *Patola* & *Nimba* are mainly *tikta rasa pradhana* and *Triphala* mild purgative. As such it helps to pacifying *pitta dosha*. *Haritaki* & *Vibhitaki* have anti ulcer property and even anti-stress, where *Urdhvaga Amlapitta* is one of psychosomatic disease. Drug *Nimba* have anti ulcer along with that it helps to pacify Burning sensation and anorexia. This formulation is also having a *deepana pachana* property. All this property of drugs helps in reducing the symptoms of *Urdhvaga Amlapitta*.

- **Probable mode of Action of *Yavadi kwatha*⁷ (Trail Group B):** This formulation contents are *Yava*, *Vasa*, *Triphala* with *prakshepka drayas* (*twak*, *ela*, *tejapatra*) have properties like *madura*, *kashaya rasa*; *katu* and *Madura vipaka*; *ushna sheeta*

virya and *laghu guna* which helps to pacify *pitta* and *kapha dosha* and have action like anti-inflammatory, antiemetic etc. *Yava* which is having *sheeta virya* and *madhu (anupana)* helps to pacify *pitta dosha*. Along with that it have *deepana pachana* property; where this may act on vitiated *rasa dhatu* and may act on *sama pitta* by which it become *nirama* and increases *agni*. *Yava* acts as *Agnivardaka*, which helps to alleviate *mandagni* and breakdown the pathogenesis. *Anulomaka* property of drug acts on *vimarga gamana* kind of *srotodushti* involved in disease. Due to *rakta shodhaka* property of this drug it may act on *raktavaha srotodusti* also.

CONCLUSION

Group A: Patients treated with *Patoladi kwatha*, extremely significant relief seen in symptoms like *Tiktamlodgara*, *Hritkantadaha*, *Utklesha* while very significant relief was found in *Avipaka*, *klama*, *Gourava* & *Aruchi*.

Group B: Patients treated with, while very significant relief in *klama*, *Gourava* & *Aruchi*. Statistically Group A

& Group B showed almost similar effect. On the basis of improvement in symptoms *Aushadha yoga* of Group B yields more results than that of Group A. The beneficial effect of trial group may be due to *Yava* does *agnivardaka karma* it alleviates *mandagni* and breakdown the pathogenesis. Both drugs (Group A & B) have *Pitta shamaka*, *depana pachana* all these properties, helps in reducing other symptoms of *Urdhvaga Amlapitta*.

Symptomatic improvement has been observed in most of the patients after treatment and few patients got re-occurrence of few symptoms after follow up (but severity of symptom is less when compared to before treatment).

Scope of further study

This trail was a time bound limited study of 15 days. So an extended long term trail is required both the drugs for better comparison and even to avoid re-occurrence of disease after treatment.

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