



## Clinical Evaluation of Patola Leaf Powder in the Management of Amlapitta

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**ABSTRACT**

Amlapitta is a common disease found in middle to old age group and poor to rich economical group of people due to faulty food habits, mental stress, over workload etc. Though it is not a life threatening disease, if left untreated or neglected, it may invite major life threatening problems. Total 31 patients were selected and divided into two groups- group A and group B for the study. Being a Pitta shamak dravya Patol is selected and given in the dose of 2gm, TDS to the group A (Trial group) where as placebo capsule is given to group B (Control group). 44% improvement in reducing the cardinal sign and symptoms of Amlapitta was found in group A whereas 35.61% in group B. It is recommended to prescribe Patol in a compound formulation for better result.

**KEYWORDS**

Amlapitta, Patola, Gastritis

**Introduction-** Amlapitta is type of G I disorder in which pitta exceed its normal level in term of amlata. Faulty dietetic habits, mental stress, over workload and changed life style are the main causative factors of Amlapitta. Describing the pathogenesis of Amlapitta Acharya Charak mentioned that, amavish, when get mixed with pitta, the disease Amlapitta develop whereas Acharya Kashyap believed the disease caused by vitiation of tri-dosha causing mandagni leading to vidagdha jirna manifesting of Amlapitta. Acharya Madhav, author of Madhav Nidhan has mentioned that the development of Amlapitta is due to vitiation of pitta which is already increased due to own causes.

The main symptoms of disease are Amlodgara, Shool, Avipak, Chhardi and Daha. It is also associated with aruchi, hrillasa, gaurava, angmard, adham etc. The disease Amlapitta can be compare with Gastritis or Hyperacidity. The line of treatment consist of mainly panchkarma measures which include vaman and virechan. Most of the physicians used vaman and virechan as chief measures for treatment of Amlapitta. Some also recommended niruha and anuvashana basti for the same. Panchkarma procedures are mainly advised for I P D practice. At O P D level it is easy to treat the case with shaman chikitsa with single drug and compound formulation. In view of this facts a single herb patola (*Trichosanthes dioica* Roxb. Family - Cucurbitaceae) which is a pitta shamak dravya is selected for the study with following aim and objectives.

**Aim and objectives-**

- To assess the efficacy of Patola Patra Churna (powder) in the management of Amlapitta.
- To ascertain if administration of Patola Patra Churna was associated with any side effects or not.
- To find out a cheap, safe and effective remedy.

**Materials and Methods :**

**Patients :** Patients attending OPD & IPD sections of Dravyaguna dept. of I.P.G.T. & R.A., Hospital Jamnagar, who fulfilled the diagnostic criteria of selection were included in the study.

**Criteria for Selection :**

A scientific proforma was prepared with signs and symptoms of Amlapitta which are mentioned in the Ayurvedic texts and patients fulfilling the criteria of proforma were selected for the study. The patients were randomly selected irrespective of age, sex, religion occupation etc. The patients selected for the study were subjected to thorough clinical history and physical examination on the basis of specially prepared proforma which incorporated the Astavidha, Dashavidha, Srotas and Dosha Pariksha. Routine laboratory investigations of blood, urine, stool as well as biochemical investigation like fasting blood sugar were conducted. All the maneuvers mentioned above were done before and after the treatment.

**Exclusion Criteria :** Patients having Heart disease Diabetes mellitus, Tuberculosis, under treatment for psychiatric ailments etc were excluded.

**Trial Drug :** Patola Leaf powder

**Drug Administration Schedule :** The patients selected for the study were randomly divided into 2 groups viz Group - A and Group - B

**Group A -** Patients of this group were given Patola Leaf powder 2 gm TDS

**Group B -** Patients of this group were treated with placebo capsule.

**Anupana :** Water

**Duration of treatment :** In both the groups the duration of treatment was fixed for 1 month.

**Diet :** As the disease is directly connected with diet and dietary habits, so patient himself knows most of the things which exacerbates the disease, hence he tries to avoid those things. But a detailed explanation regarding the Astavidha Ahara Ayatana and Ashana Pravicharas was given to all patients and requested them to follow the same. However, they were

asked to avoid too hot, oily, sour, spicy and fatty food.

**Criteria for Assessment :** Assessment of the effect of treatment was done on the basis of the relief in the clinical signs and symptoms of the disease. Most of the signs and symptoms of the disease described in Ayurvedic classics are subjective in nature. Hence in order to provide some objectivity to the subjective results and to make easy the statistical analysis, multidimensional scoring system was adopted to assess the relief in the cardinal symptoms of the patients. This symptoms score was calculated before and after the treatment through statistical analysis and percentage of relief was noted to assess the efficacy of therapy.

**Assessment of total effect of the therapies :-**The following criteria were evolved to assess the total effect of the therapies on the patients of Amlapitta.

1. Complete remission (cured) :- 100% relief in signs and symptoms of Amlapitta.
2. Marked Improvement :- 76% to 99% relief in signs and symptoms of Amlapitta
3. Improvement :- 51% to 75% relief in signs and symptoms of Amlapitta.
4. Mild Improvement :- 26 to 50% relief in signs and symptoms of Amlapitta
5. Unchanged :- Below 25% relief in signs and symptoms of Amlapitta.

Further the effect of the treatment on signs and symptoms of Amlapitta were analyzed statistically & Mean SD, SE & 't' values are calculated as per paired 't' test.

**Clinical Observation:-** In the present study 31 patients of Amlapitta were registered ,15 in Group - A and 16 in Group - B. 09 patients out of 15 in Group- A and 08 patients out of 16 in Group—B were completed the course of treatment while 06 patients from Group- A and 08 patients from Group—B have left the course against medical advice.

#### A)On Demographic data: Table-1

Demographic data	Class	Percentage
Age	21-40 years	61.29%
Sex	Male	64.5%
Religion	Hindu	90.32%
Marital status	Married	83.87%
Occupation	House work	41.93%
Education	Primary	35.48%
Social economical status	Poor and lower middle	70.96%
Habitat	Urban	87.09%
Diet	vegetarian	51.61%
Dietetic habits	vishamashan	93.54%
Dominancy of rasa in diet	Amla	96.77%
Addiction	Tea	96.77%
Sleeping habit	Interrupted	45.16%
Bowel habit	Constipation	41.96%
Nature of work	Physical	83.87%
Emotional make up	Anxiety and depression	54.83% each
Viharaja nidand sevana	Vegavidharana(suppression of natural urges)	87.09%
Prakriti	Vata-pitta prakriti	70.97%
Satwa	Avara	51.67%

**Table No – 2: Cardinal Signs and Symptoms wise distribution of 31 patients of Amlapitta**

Signs & Symptoms	No. of Patients		Total	Percentage
	Group-A	Group-B		
Amlodgara	15	16	31	100
Avipaka	14	10	24	77.41
Daha	13	14	27	87.09
Chhardi	05	04	09	29.03
Shoola	15	14	29	93.57

**Table No. 3: Associated Signs and Symptoms wise distribution of 31 patients of Amlapitta**

Signs and Symptoms	No. of patients		Total	Percentage
	Group-A	Group-B		
Aruchi	15	14	29	93.57
Hrillasha	15	12	27	87.09
Gaurav	14	15	29	93.57
Angasada	11	08	19	61.29
Angamarda	10	12	22	70.96
Adhmana	11	08	19	61.29
Atopa	02	04	06	19.35
Pipasa	03	05	08	25.08

**Table No – 4 Effect on cardinal Signs and Symptoms of Amlapitta in Group-A**

Symptoms	Mean B.T.	Mean A.T.	n	%	X	S.D.	S.E.	t	P
Amlod-gara	3.44	2.33	9	29.07	1.00	0.50	0.17	5.88	<0.001
Avipaka	4.00	2.00	9	50	2.00	0.50	0.17	12.00	<0.001
Daha	3.89	2.44	9	37.01	1.44	0.73	0.24	6.00	<0.001
Chhardi	3.00	1.40	5	53.33	1.60	0.55	0.25	6.40	<0.01
Shoola	4.00	1.89	9	52.75	2.11	0.60	0.20	10.55	<0.001

**Table No -5 Effect on cardinal Signs and Symptoms of Amlapitta in Group - B**

Symptoms	Mean B.T.	Mean A.T.	n	%	X	S.D.	S.E.	t	P
Amlod-gara	3.25	2.25	8	30.77	1.00	0.76	0.27	3.74	<0.01
Avipaka	3.88	2.38	8	38.66	1.50	0.54	0.19	7.91	<0.001
Daha	3.88	3.00	8	22.68	0.88	0.35	0.13	7.04	<0.001
Chhardi	3.00	1.75	4	41.67	1.25	0.50	0.25	5.00	<0.05
Shoola	4.00	2.13	8	47	1.88	0.64	0.23	8.28	<0.001

**Table No. 06: Effect on associated Signs and Symptoms of Amlapitta in Group-A**

Symptoms	Mean BT	Mean AT	n	%	g	SD	SE	t	P
Aruchi	3.78	2.11	9	44.18	1.67	0.50	0.17	9.82	<0.001
Hrillasha	3.38	1.75	8	48.22	1.75	0.46	0.16	10.93	<0.001
Gaurav	3.67	1.56	9	57.49	2.11	0.33	0.11	19.18	<0.001
Angasada	3.25	2.00	8	38.46	1.12	0.35	0.12	9.33	<0.001
Angamarda	3.33	2.00	6	39.94	1.33	0.52	0.21	6.33	<0.01
Adhmana	4.00	2.50	6	37.50	1.50	0.55	0.22	6.81	<0.01
Atopa	3.50	2.00	2	42.86	1.5	0.70	0.50	3	NS
Pipasa	3.00	2.50	2	16.67	0.50	0.70	0.41	1.23	NS

NS-Non Significant

**Table No. 07: Effect on Associated Signs and Symptoms of Amlapitta in Group-B**

Symptoms	Mean BT	Mean AT	n	%	g	SD	SE	t	P
Aruchi	3.86	2.75	8	28.75	1.25	0.46	0.16	7.81	<0.001
Hrillasha	3.58	2.33	6	34.91	1.67	0.75	0.31	5.38	<0.01
Gaurav	4.00	1.62	8	59.50	2.38	0.52	0.18	13.22	<0.001
Angasada	3.50	1.63	8	53.42	1.88	0.35	0.12	15.66	<0.001
Angamarda	3.57	2.00	7	43.98	1.57	0.54	0.20	7.85	<0.001
Adhmana	4.00	2.17	6	45.75	1.83	0.41	0.17	10.76	<0.001
Atopa	3.5	2.00	2	42.86	1.50	0.71	0.50	3	NS
Pipasa	4	1.5	2	37.50	2.50	0.71	0.50	5	NS

NS-Non Significant

**Table No. 08: Total Effect of Therapies**

Criteria	No. of patients in Group -A	%	No. of patients in Group-B	%
Complete remission	00	00	00	00
Marked Improvement	00	00	00	00

Moderate Improvement	01	11.11	00	00
Mild Improvement	08	88.88	08	100
Unchanged	00	00	00	00

**Table No. 09: Percentage wise improvement on Cardinal Symptoms**

Effect of therapies	
Group-A (Trial Group)	44%
Group-B (Control Group)	35.61%

Total effect of Therapies in Group-A was 44.00% and 35.61% in Group-B.

#### Discussion:

Cardinal symptoms-Amlodgara was found in all the patients (100%), while Shoola was found in 93.57% patients, Daha in 87.09%, Avipaka in 77.41% and Chhardi was found in 29.03% patients (as mentioned in Table-2). As these were the cardinal signs and symptoms of the disease Amlapitta, it was expected to have findings like this, but the quantum of these findings was important. The above findings may be due to Amlarasa and Katurasa Pradhanata in routine diet and other faulty dietetic habits. Due to variation in the diet, mental condition, metabolism, sleeping pattern, addiction etc. the degree of severity was different in each and every patients.

Associate symptoms-In maximum no. of patients i.e. 93.57% Aruchi and Gaurav was observed, while in 87.09% cases Hrillasa, in 70.96% Angamarda was observed. It may be due to improper dietetic habits which lead to vitiation of Pitta and impairment of Agni.

Effect on cardinal sign and symptoms - it is clear that the trial drug Patola Patra Churna (Group-A) was successful in reducing and relieving the cardinal signs and symptoms of Amlapitta. Amlodgara was reduced by 29.07%, Avipaka by 50%, Daha by 37.01%, Chhardi by 53.33% and Shoola by 52.75%. Improvement in all the above mentioned cardinal signs & symptoms of Amlapitta were found to be statistically highly significant at  $P < 0.001$ . (Table-4)

On the other hand Plaebo capsule (Group-B) also showed 30.77% relief in Amlodgara, 38.66% in Avipaka, 22.68% in Daha, 41.67% in Chhardi and 47% relief in Shoola. All the symptoms showed highly significant result at different level except Chhardi which showed significant relief at  $P < 0.05$ . (Table-5)

Effect on Associated Signs and Symptoms-The drug Patola Patra Churna was found to be effective in relieving Aruchi by 44.18%, Hrillasa by 44.82%, Gaurava by 57.49%, Angasada by 39.96%. Improvement in all the above mentioned associated signs and symptoms of Amlapitta were statistically highly significant at  $P < 0.001$ . Angasada was reduced by 39.94% and Adhmana by 37.50% and relief in both the symptoms were statistically highly significant at  $P < 0.01$ . Patola Patra was successful in reducing Atopa by 42.86% and pipasa by 16.16% but the improvement was statistically non-significant. (table-6)

In control group also outcome (result) on all above signs and symptoms were statistically highly significant at different level ( $P < 0.001$  &  $P < 0.01$ ) except in case of Atopa and Pipasa which were statistically non-significant. (table-7). This suggests that symptoms were subsided in both trial and control group. But trial group showed slight better percentage of relief in comparison to control group.

Complete remission or marked improvement was not found in any patients of both the groups. In group-A (Trial Group) one patient got moderate improvement while remaining 8 patients (88.88%) got mild improvement, in group-B (Control Group) all the patient (100%) got mild improvement. (Table-8).

Total effect of Therapy- The percentage wise relief in cardinal signs and symptoms of Amlapitta found in drug treated

group(Group-A) is 44% provided better relief in comparison to control group (Group-B) which is 35.61%(Table-9). Amlapitta is a disease of Annava Srotas in which vitiation of Pitta and Agni are the important factors for the pathogenesis of the disease. The etiological factors are mainly related to food. The result found in the control group was due to dietetic restriction and the relief found in the trial group was due to both dietetic control and action of the drug.

#### Conclusion

Amlapitta is a disease of Annava Srotas in which vitiation of Pitta and Agni are the important factors for the pathogenesis of the disease. The etiological factors are mainly related to food. The result found in the control group was due to dietetic restriction and the relief found in the trial group was due to both dietetic control and action of the drug.

The use of single drug Patola may not potent enough to reduce the signs and symptoms of Amlapitta to a marked improvement level or complete remission level, but it may give better result when prescribed in compound formulation which are described in our classics. The slight better result in trial group than control group is due to the activity of the drug Patola.

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