

## Pharmaceutical preparation of *avipattikara churna*, its chemical analysis & clinical studies with special reference to the treatment of *amlapitta roga*

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### Abstract

*Avipattikaracurna*, a herbal pharmaceutical preparations, is prescribed for *Amlapitta* patients to reduce the symptoms of the disease. The objective of this study is to evaluate the clinical improvement of the selected patients. Forty patients with *Amlapitta* were selected on the basis symptoms and treated with *Avipattikaracurna* for a period of three months. 4 grams of *Avipattikaracurna* was administered orally two times a day before meal with water. There was 94.7% relief from acid eructation, 91.4% relief from burning sensation, 85.7% relief from loss of appetite and 88.9% relief from constipation. Further heart pain relief was 91.4%, 91.4% relief from flatulency, 83.9% relief from headache, vomiting relief was 96.7% and nausea relief was 92.1%. All the p values in the comparison of before and after fifteen days of treatment were less than 0.05. Hence, the effect of treatment was statistically significant for the symptoms of patients at 5% level.

**KEY WORDS:** *Avipattikara choorna, Amlapitta.*

### Introduction

*Amlapitta* (resemblance with Hyperacidity) is a vital issue discussed over the years in the Medical field. The symptoms of *Amlapitta* have been evidently found to show its, resemblance with Hyper acidity. By looking at the cases signs, symptoms and pathogenesis mentioned in classics and in the modern literature pertaining to the disease Hyper acidity It seems that both diseases are having similarity in between them. Day by day the number of patients suffering from *Amlapitta* has been increasing.

A number of causative factors have affected for this disease. Indigestion is the main causative factor for *Amlapitta*. Certain food habits such as Indulgence of highly acidic diet, fast foods (Pickle, Sauce, Pizza etc.) Sour & Spice foods, Oily foods taken in extent, mental stress and Tension cause of *Amlapitta*.

In Allopathic medicine symptomatic treatment is suggested for temporary relief. But temporary treatment and repeated occurrence may result in patient setting addicted to treatment. To avoid this addiction and cure this disease permanently the Ayurvedic medicine are of great relevance. Today large numbers of Allopathic drugs are rejected because of their undesirable side affects.

However Ayurvedic drugs are more beneficial due to their accessibility, availability, and expensiveness. These drugs do not show any undesirable side effects, as they do not contain any harmful constituents. According to ancient Ayurvedic texts, *Avipattikara Choorna* is very effective drug for *Amlapitta roga*. Ayurvedic research on the efficacy of various drugs for *Amlapitta* has been carried out. But specific research on the efficacy of *Avipattikara Choorna* for *Amlapitta* has not been carried out so far in Sri Lanka.

### Materials & Methods

Ingredients of *Avipattikara Choorna*, formulation contain fourteen drugs. *Sunti, Maricha, Pippali, Harithaki, Vibithaki, Amalaki, Musthaka, Vidlavana, Vidanga, Ela, Thejapathra* eleven drugs were taken equal proportion (11 parts) together with 11parts of *Lavanga*, 44 parts of *Thrivurth* and 66parts of *Sharkara*. All the drugs were powdered in to a fine powder.

40 patients, who showed signs and symptoms of *Amlapitta*, were selected randomly from the O.P.D of Gampaha Wickramarachchi Ayurveda hospital of Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya, Yakkala, Sri Lanka, for the clinical trial.

Those patients were treated with prepared *Avipattikara choorna* and the drug was administered orally in the dosage of 4 gram two times a day before meals with water. The treatment was given for 3 months during which progress was evaluated fortnightly. Assessment of the efficacy of the drug was done on the basis of relief in the subject, as well as objective signs and symptoms of *Amlapitta*. Those scores were recorded before and after the treatment and statistical analysis and percentage of relief was considered to assess the efficacy of the drug *Avipattikara choorna*. The scoring was done as Mild (1); Moderate (2); Moderately severe (3); Severe (4); Nil (0).

The following criteria were used to assess the efficacy of treatment on the symptoms of *Amlapitta*.

Complete remission - 76% - 100% relief  
 Markedly Improved - 51% - 75% relief  
 Improved - 26% - 50% relief  
 Un changed - Below 25% relief

The selected symptoms included acid eructation, burning sensation, belching, loss of appetite, constipation, heart pain, *udaradmana*, headache vomiting, and nausea. Assessments were done before treatment, after 15 days, 30 days, 45 days, 75 days and after 90 days.

#### Statistical Analysis

A nonparametric Wilcoxon Signed Rank test for two dependent samples was applied for each symptom.

#### Result and Discussion

The pH value of the *Avipattikara Choorna* is 4.7 and suitable for the patients of *Amlapitta roga*. This acid level can be administered to the patients of *Amlapitta* for neutralization of gastric acidity without any harm.

Demographic data was obtained from the patients as gender, age group, marital status, ethnicity, occupation, education wise. Data of clinical examination was assessed according to habitat, dietetic nature, roga dominancy, addiction, physical exercise, bowel pattern, emotion, *sharira prakriti*, *manasprakriti*, *agni*, *koshta* and etiological factors.

According to the demographic data, the number of female patients were higher than that of male. The patients who are having age 30-50 years were higher than the other groups. Married patients were higher than the others. Educated people are higher than the other groups. The middle class people are having higher incidence of *Amlapitta roga* than the others. The vegetarian dietetic nature patients are less.

Symptoms	Before Treatment		After Treatment		Relief	
	Freq.	%	Freq.	%	Freq.	%
Acid eructation	38	95	2	5	36	94.74
Burning sensation	35	87.5	3	7.5	32	91.43
Belching	35	87.5	6	15	29	82.86
Loss of Appetite	35	87.5	5	12.5	30	85.71
Constipation	36	90	4	10	32	88.89
Heart pain	30	75	2	5	28	93.33
Udaradmana	35	87.5	3	7.5	32	91.43
Headache	37	92.5	6	15	31	83.78
Vomiting	30	75	1	2.5	29	96.67
Nausea	38	95	3	7.5	35	92.11

Table 1: Distribution of ten Signs & Symptoms among 40 patients of *Amlapitta*



Since all the p - values in the comparison between before treatment and after treatment are less than 0.05, it can be concluded that treatment effect is statistically significant for symptoms of patients at 95% level of significance. The same situation can be observed from the 2<sup>nd</sup> and 3<sup>rd</sup> comparisons. The treatment has not been effective for symptom 9 in the 4<sup>th</sup> comparison. (p-value>0.05) It hasn't been significant treatment effect for symptom 2 and 9 between after 60 days and 75 days at 5% level. Since all the p-values are very much greater than 0.05 it can be inferred that the treatment effect hasn't been significant for every symptom of the final comparison at 5% level of significance. According to signs and symptoms during the drug administration, the p - values, in comparison between before treatment and after treatment, are less than 0.05 and therefore, it can be concluded that treatment effect is statistically significant for symptoms of patients at 95% level of significance.

#### Conclusion

After administration of the drug pH value of *Avipattikara churna* has considerably increased which allocates for efficacy of drug. Acid level and total sugar level of drug *Avipattikara choorna* were in appropriate range for *Amlapitta* patients. Thus *Avipattikara choorna* is an effective drug for *Amlapitta roga*.

Figure 1: Distribution of patients as per the symptoms (Before and After treatment)

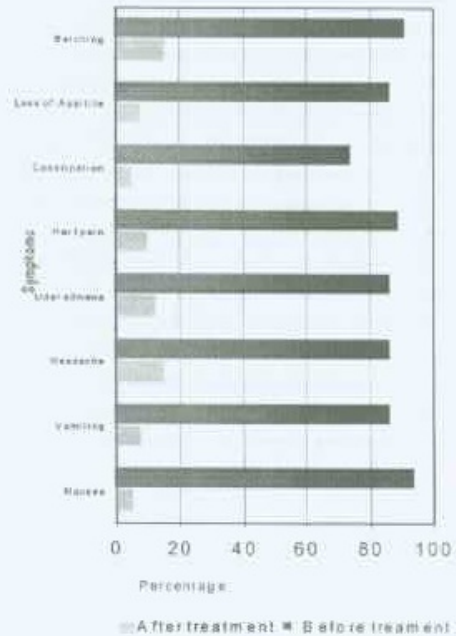


Table 1: Percentage of Patient (Before and After treatment)

Symptoms	Before Treatment		After Treatment		p - value
	Freq.	%	Freq.	%	
Acid eructation	38	95	2	5	0.010*
Burning sensation	35	87.5	3	7.5	0.000*
Belching	35	87.5	6	15	0.003*
Loss of Appetite	35	87.5	5	12.5	0.000*
Constipation	35	90	4	10	0.000*
Heart pain	30	75	2	5	0.000*
Udaradmana	35	87.5	3	7.5	0.000*
Headache	37	92.5	6	15	0.000*
Vomiting	30	75	1	2.5	0.000*
Nausea	35	95	3	7.5	0.000*

Regular food time habits are good and *Katu rasa ahara* is main causative factor of *Amlapitta*. Regular exercise is also good for the preventing of *Amlapitta*. Constipation is main causative factor of these patients. *Vata pitta prakurthi shareera* is having high percentage of *Amlapitta*. Stress and anxiety are also increasing this disease. *Avipattikara churna* relieves abdominal distension, epigastric discomfort, nausea, Heartburn. According to efficacy of this drug it prevents constipation, removes congestion and act as a preventive measure a gains hyper acidity. The highly statistical significant relief was found in symptoms like vomiting, Acid eructation, Heart pain, burning sensation and *udaradmana*. Less satisfactory improvement was observed in belching, loss of appetite and constipation. There for *Avipattikara choorna* is a specific and ideal drug of *Amlapitta roga*.

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