

## A NOVEL APPROACH IN THE MANAGEMENT OF AMLAPITTA (GASTRITIS) THROUGH ODANA KALPANA – A CLINICAL STUDY

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### ABSTRACT

*Amlapitta* is a very common disease in present era. It is very troublesome disease and can give rise to many serious problems if not treated in time. Signs and symptoms of *Amlapitta* are very similar to gastritis or hyper acidity. According to conventional medical science the most common causes of gastritis are *H. pylori* infections and prolonged use of Non Steroidal Anti Inflammatory Drugs (NSAIDS). The incidence of gastritis in India is approximately 3 in 869 that is about 12,25,614 people suffering from gastritis out of the total 1,06,50,70,607 population. In this regard the present study was conducted in 30 clinically diagnosed patients of *Amlapitta*, with an objective of clinical evaluation of efficacy of *Odana Kalpana* (*Orzya Sativa*) and *Virecana Yoga*. (*Operculina turpethum*). These patients were randomly allocated into two groups of 15 patients each. Patients of group A were recommended *Odana Kalpana* 50 g as the *Mantha* preparation with water twice a day for one month after 3 days of *shodhana karma* (bio purification). Patient of group B were only given *Odana Kalpana* 50 g as *Mantha* preparation with water twice a day for one month. It was observed that the patients of *Amlapitta* of Group A treated with *Odana Kalpana* and *Virecana yoga* showed maximum percentage of improvement i.e. 53.20 % where as it was 42.01% in patients of Group B. No side effects were noted in any of the patients during the trial period. Hence *Odana Kalpana* is effective in the management of *Amlapitta* and also it is cost effective. Bio purification or purgation helped further to enhance the drug efficacy.

**Keywords:** *Odana Kalpana, Mantha, Virecana, Amlapitta*

### INTRODUCTION

Today's life style is completely changed by all means, our diet pattern, life styles and behavioral pattern is changed and it is not suitable for our normal physiology of digestion of the body. 25 – 30 % peoples are suffering from dyspepsia in India<sup>1</sup>. These diseases are chronic in nature and affects adults mostly. Patients of gastritis often results into peptic ulcer. Signs and symptoms of *Amlapitta* mentioned in the *Ayurvedic* texts are very similar to gastritis or hyper acidity. The incidence of gastritis in India is approximately 3 in 869 that is about 12, 25,614 people suffering

from gastritis out of the total 1,06,50,70,607 population.<sup>2</sup> *Caraka Samhita* clearly indicates that the *Grahani Dosh* and *Amlapitta* occur in the persons who do not check the temptation of food.<sup>3</sup> *Amlapitta* is mentioned in *Kasyapa Samhita*<sup>4</sup>, *Madhava nidana*<sup>5</sup>, *Bhavaprakasa*<sup>6</sup> and *Cakradatta*<sup>7</sup>. *Acharya Caraka, Susruta* and *Vagbhata* have not described this disease *Amlapitta*, as separate though it has been referred at certain places. *Annavisha* (toxins) produced due to *Ajirna* (indigestion) when mixes with *Pitta Dosh*, enters in *Amashaya* (stomach) and then produces *Amlapittadi* diseases.<sup>8</sup> According to all the

descriptions available, it is realized that there is excessive secretion of *Amla Guna* of *Pitta dosha* which causes *Vidahyadi* conditions. (i.e sourness of *Pitta* gets increased.)<sup>9</sup> Therefore drugs which have *Tikta-Madhura Rasa, Madhura Vipaka, Sheeta Virya and Laghu Guna with Kapha-pittahara* action help in treatment of *Amlapitta*. The main drug used in this study i.e *Odana Kalpana (Oryza sativa)* preparation has same properties described in *Ayurvedic* texts.

In *Ayurveda*, *Shodhana* therapy (bio purification) has been given an importance as it is based on expulsion of vitiated *Doshas* produced by the non homologous factors from the body and avoids the relapses of diseases. *Virechana* (purgation) is best measure for *Paittika* disorder as a *Shodhana* remedy of disease.<sup>10,11</sup> It is believed that the diseases cured by *sodhana* therapy never relapse while the disease cured by *Shamana* treatment may recur<sup>12</sup>. It attacks the very root cause of disease, cleanse all body micro-circulatory channels, remove the vitiated *Doshas* from the body and produce long lasting beneficial effect. The drug used for *Shodhana (Virechana)* karma was *Trivrit Churna. (Operculina turpethum)* Taking all these points into consideration the study was planned to evaluate the following aims and objectives.

### **AIMS AND OBJECTIVES**

1. To find out effectiveness of *Odana Kalpana* in *Amlapitta*.
2. To compare the efficacy of *Odana Kalpana* preparation as the single administration and with a *Virecana Yoga*.

### **MATERIALS AND METHODS**

**Design of the study:** Randomized Single blind study

**Selection of patients:** In the present study the cases were taken from O.P.D/I.P.D. of *Arogyashala, NIA, Jaipur* in month of Sept

2011. A detailed history, evaluation and follow up studies were recorded on a *Performa* designed especially for the present study. Patients were advised to take *pathyahara* and to correct their dietary habits and avoid *Apathyahara*.

**Sampling:** Simple random sampling technique using lottery method was used. Group allocation was done by simple random allocation (complete randomization).

**Sample size:** 30 patients, Drop outs: none

**Grouping:** 30 patients under trial were subdivided into two groups i.e. Group A, Group B (each 15) to compare the effects. Patients of Group A, received *Odana Kalpana (Oryza sativa)* i.e rice cooked first and then roasted 50 g as the *Mantha* preparation with water twice a day for one month after 3 days of *shodhana karma* (purgation) with 10g of *Trivrit Churna*. Patient of Group B received the medicine of *Odana Kalpana* 50 g as the *Mantha* preparation with water twice a day without any *shodhana karma*.

**Ethical considerations:** Ethical clearance was obtained from the institutional ethics committee (IEC). Informed consent obtained from all the patients.

**Inclusive criteria:** Patients having classical features of *Amlapitta*, mentioned in *Ayurvedic* texts, Out of which following symptoms were considered like *Diarhoea/Vidbheda*, Heaviness of abdomen/*Udara Guruta*, Heaviness of the body/*Sharira Gourava*, Acid Eructation/*Utklesa*, Flatulence/*Amlodgara*, No digestion of food/*Avipaka*, Headache/*Shira Shula*, Pain in the cardiac region/*Hrit Shula*, Lethargy/*Angasada*, Lassitude/*Klama*, Loss of Appetite/*Aruci*, Vomiting/*Chardi*.

**Exclusive criteria:** Patients having any endocrine disorders or chronic complicated diseases. Patients age group below 16 years and above 66 years.

Table 1: showing the treatment followed in groups A and B

| Group | No. of Patients | Treatment given                                                                                                                                                      |
|-------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A     | 15              | <i>Trivrit Churna</i> 10g <i>Virecana Yoga</i> for 3 nights before sleep, and after that <i>Odana Kalpana</i> 50 g with water, before meals, twice a day for 30 days |
| B     | 15              | 50g of <i>Odana Kalpana</i> with water before meals twice a day for 30 days                                                                                          |

### Preparation of Drugs

Main drug was prepared as *mantha kalpana*, according to *Susruta samhita*<sup>13</sup> and *Sarangadhara Samhita*.<sup>14</sup> *Mantha* prepared using *Rakta Sali odana (Oryza sativa)*. In this first rice was cooked and then roasted. Finally roasted *odana* was given to the patient as a powder form. It is sweet, *sitavirya*, *laghu paka*, (light in digestion), strength promoting, *pitta*- pacifying, slightly increasing *vata* and *kapha*, unctuous, and reduces quantity of faeces.<sup>15</sup>

For *Virechana Yoga Trivrit (Operculina turpethum)* powder was given. Following are its *Ayurvedic* properties. *Guna: Laghu*, *Ruksha*, *Tikshna*, *Rasa: Katu, Tikta, Madhura, Kashaya, Veerya: Ushna, Vipaka: Katu, Dosha: Pittakaphahara, Karma: Rochaniya, Krimighna, Kanthya, Jwaraghna, Vranahara, Lekhana, Shodhana*<sup>16</sup>

**Criteria of Assessment:** Both subjective and objective parameters were employed for assessment of the impact of the treatment produced in respective groups.

**Subjective criteria-** Evaluation was done in relative to relief in signs and symptoms of *Amlapitta* with the help of scoring pattern found in *Ayurvedic* texts.<sup>17</sup>

### Objective criteria

Following investigations were carried out before and after the clinical trial to rule out some underlying disease.

Hb.g% , TLC and ESR.

### Subjective Criteria

Grading System of Symptoms (Assessment criteria)

- Diarrhoea/*Vidbheda*

0 Normal bowel

1 2-3 times loose motion per day

2 2-3 times loose motion per day

3 More than 6-7 times loose motion per day with weakness of the body

- Heaviness of abdomen/ *Udara Guruta*

0 No heaviness

1 Occasionally feeling of heaviness in abdomen but it is for some times only

2 Heaviness of abdomen throughout the day

3 Daily feeling of heaviness which requires medication and does not relive by it

- Heaviness of the body

0 No heaviness of the body

1 Occasionally feeling

2 Heaviness remains up to 6 hours

3 Heaviness remains more than 6 hours

- Acid Eructation /*Utklesa*

0 No (*utklesa*) at all

1 Occasionally but not daily

2 Daily after taking meals (1-2 hours)

3 Frequent *Amlasyata & Amla Gandha*

- Flatulence/ *Amlodgara*

0 No *Amlodgara* at all

1 Occasionally during day or night for less than half an hour after meals.

2 *Amlodgara* after intake of meals any food substance for half to one hour and relieved by digestion of food or vomiting

3 *Amlodgara* after intake of meals any food substance for less than half hour and relieved by digestion of food or vomiting

- No digestion of food/*Avipaka*

0 No *Avipaka* at all

1 *Avipaka* Occur daily after meals remain 4-6 hours for *udgara suddhi laksana*

2 Daily after all meals seldom feel hunger but eats the foods only once in a day & does not have hunger by evening

3 Never get hunger always heaviness of the stomach followed by *Gaurava Avipaka, Alasya*

- Headache /*Shira Shula*
  - 0 Not at all
  - 1 Occasionally
  - 2 Daily for some time
  - 3 Daily after meals all the time of the day
- Pain in the cardiac region /*Hrit Shula*
  - 0 Not at all
  - 1 Occasionally
  - 2 Daily after meals for less than 30 minute
  - 3 Daily after meals for long time
- Lethargy /*Angasada*
  - 0 Not at all
  - 1 Occasional feeling of heaviness
  - 2 Lethargy remain up to the *jaranantakala* (4 to 6 hours) only
  - 3 *Angasada*/heaviness also followed by *jaranantakala* for 7 hours
- Lassitude /*Klama*
  - 0 Not at all
  - 1 Lassitude without *Shrama* daily for some times
  - 2 Daily for long time
  - 3 Always feels tired & have no enthusi-

- asm all the time of the day
- Loss of Appetite/ *Aruci*
  - 0 Willing towards all *Rasa*
  - 1 Willing *amla, lavana* and *katu rasa*
  - 2 Unwilling foods but can eat
  - 3 Totally unwilling for meals
- Vomiting / *Chardi*
  - 0 No vomiting or nausea
  - 1 Nausea only
  - 2 Occasional vomiting (weekly 2-3 times)
  - 3 Frequent vomiting

**Statistical analysis:** The information gathered on the basis of above observations was subjected to statistical analysis. Student Paired’ test was carried out for all non-parametric Test. The results were interpreted at  $p < 0.05$ ,  $p < 0.01$  and  $p < 0.001$  significance levels.<sup>[18]</sup>

The obtained results were interpreted as: If P value is not  $< 0.05$  Insignificant;  $P < 0.05$ ,  $P < 0.01$  Significant and  $P < 0.001$  Highly Significant.

## OBSERVATIONS AND RESULTS

Table 2: The Effect of Therapy According to Signs and Symptoms in Group A

| Sl No | Symptoms               | Pts. | Mean |      | Dif  | % of change | SD   | SE   | t     | p      |
|-------|------------------------|------|------|------|------|-------------|------|------|-------|--------|
|       |                        |      | BT   | AT   |      |             |      |      |       |        |
| 1     | <i>Aruci</i>           | 15   | 1.40 | 0.2  | 1.2  | 81.0        | 0.4  | 0.1  | 11.00 | <0.001 |
| 2     | <i>Udara Guruta</i>    | 15   | 3.00 | 1.0  | 1.9  | 64.4        | 0.7  | 0.18 | 10.64 | <0.001 |
| 3     | <i>Amla Udgara</i>     | 15   | 2.00 | 0.6  | 1.40 | 70.0        | 0.6  | 0.6  | 8.1   | <0.001 |
| 4     | <i>Amla Uthklesa</i>   | 15   | 1.1  | 0.2  | 0.8  | 76.0        | 0.9  | 0.2  | 3.3   | <0.001 |
| 5     | <i>Sharira Gourava</i> | 15   | 3.00 | 1.0  | 1.9  | 64.0        | 0.4  | 0.1  | 16.0  | <0.001 |
| 6     | <i>Angasada</i>        | 15   | 1.4  | 0.4  | 1.0  | 71.0        | 0.5  | 0.1  | 7.2   | <0.001 |
| 7     | <i>Klama</i>           | 15   | 1.3  | 0.2  | 1.0  | 80.0        | 0.4  | 0.1  | 9.0   | <0.001 |
| 8     | <i>Chardi</i>          | 15   | 0.2  | 0.00 | 0.2  | 100.00      | 0.4  | 0.1  | 1.8   | >0.1   |
| 9     | <i>Vitbeda</i>         | 15   | 00   | 00   | 00   | 00          | 00   | 00   | 00    | 00     |
| 10    | <i>Shiro ruja</i>      | 15   | 1.40 | 0.30 | 1.10 | 76.0        | 0.40 | 0.1  | 9.0   | <0.001 |
| 11    | <i>Avipaka</i>         | 15   | 2.0  | 0.3  | 1.3  | 64.0        | 0.4  | 0.1  | 10.0  | <0.001 |
| 12    | <i>Hrit Shula</i>      | 15   | 0.26 | 0.06 | 0.2  | 75.0        | 0.4  | 0.1  | 1.8   | <0.01  |

Table 3: The Effect of Therapy According to Signs and Symptoms in Group B

| Sl No | Symptoms               | No. of Pts. | Mean |      | Dif | % of change | SD   | SE   | t    | p      |
|-------|------------------------|-------------|------|------|-----|-------------|------|------|------|--------|
|       |                        |             | BT   | AT   |     |             |      |      |      |        |
| 1     | <i>Aruci</i>           | 15          | 1.3  | 0.8  | 0.5 | 40.0        | 0.6  | 0.1  | 3.2  | <0.010 |
| 2     | <i>Udara Guruta</i>    | 15          | 3.00 | 1.4  | 1.5 | 51.0        | 0.6  | 0.1  | 9.2  | <0.001 |
| 3     | <i>Amla Udgara</i>     | 15          | 2.4  | 1.3  | 0.9 | 38.0        | 0.7  | 0.18 | 5.0  | <0.001 |
| 4     | <i>Amla Uthklesa</i>   | 15          | 0.8  | 0.6  | 0.2 | 30.0        | 0.5  | 0.1  | 1.73 | >0.1   |
| 5     | <i>Sharira Gourava</i> | 15          | 3.00 | 0.50 | 1.2 | 38.0        | 0.7  | 0.1  | 5.1  | <0.001 |
| 6     | <i>Angasada</i>        | 15          | 1.4  | 0.7  | 0.7 | 50.0        | 0.5  | 0.1  | 4.7  | <0.001 |
| 7     | <i>Klama</i>           | 15          | 1.3  | 0.6  | 0.7 | 55.5        | 0.5  | 0.1  | 4.7  | <0.001 |
| 8     | <i>Chardi</i>          | 15          | 0.2  | 0.00 | 0.2 | 100.00      | 0.4  | 0.1  | 2.2  | <0.05  |
| 9     | <i>Vitbeda</i>         | 15          | 00   | 00   | 00  | 00          | 00   | 00   | 00   | 00     |
| 10    | <i>Shiro ruja</i>      | 15          | 1.40 | 0.8  | 0.5 | 38.0        | 0.50 | 0.1  | 4.0  | <0.001 |
| 11    | <i>Avipaka</i>         | 15          | 2.1  | 1.4  | 0.9 | 43.7        | 0.7  | 0.2  | 4.5  | <0.001 |
| 12    | <i>Hrit Shula</i>      | 15          | 0.1  | 0.0  | 0.1 | 100         | 0.35 | 0.09 | 1.4  | >0.1   |

Table 4: Effect of the Trial Drug of Group A on Haematological Profile and Biochemical Profile

| Sl No | Variable     | Mean  |       | Diff. | % of Relief | SD   | SE   | t   | p    |
|-------|--------------|-------|-------|-------|-------------|------|------|-----|------|
|       |              | BT    | AT    |       |             |      |      |     |      |
| 1     | Hb (g%)      | 10.73 | 11.02 | 0.28  | 2.6         | 0.40 | 0.10 | 2.7 | <0.5 |
| 2     | TLC (/cu mm) | 7390  | 7220  | 830   | 13.7        | 150  | 30   | 2.5 | <0.5 |
| 3     | ESR (mm/hr)  | 34.66 | 33.33 | 2.2   | 6.5%        | 2.1  | 0.5  | 4.1 | <0.5 |

SD = Standard Deviation, SE = Standard Error, NS = Not significant

The above table shows that the trial medicine of Group A did not show any noticeable effect on the Haematological status of the volunteers who participated in the trial. All the variables exhibited a very little change after the completion of the trial which was not significant.

Table 5: Effect of the Trial Drug of Group B on Haematological profile and Biochemical Profile

| Sl No | Variable     | Mean   |        | Diff. | % of Relief | SD     | SE     | t     | p    |
|-------|--------------|--------|--------|-------|-------------|--------|--------|-------|------|
|       |              | BT     | AT     |       |             |        |        |       |      |
| 1     | Hb (gm %)    | 10.235 | 10.095 | 0.14  | 1.3679      | 0.6286 | 0.1406 | 0.996 | <0.5 |
| 2     | TLC (/cu mm) | 7150   | 7120   | 30    | 0.4196      | 721.18 | 161.26 | 0.186 | <0.5 |
| 3     | ESR (mm/hr)  | 36.73  | 37.33  | 0.6   | 1.6         | 3.5    | 0.9    | 0.6   | <0.5 |

SD = Standard Deviation, SE = Standard Error, NS = Not significant

Table shows that the trial medicine of Group B did not show any noticeable effect on the Hematological status of the volunteers who participated in the trial. All the variables exhibited a very little change after the completion of the trial which was not significant.

Table 6: Total Effect of Therapy in 30 Patients (Subjective Symptoms)

| Group | BT     | AT     | Diff.  | % Relief | SD     | SE     | t      | p      | Results |
|-------|--------|--------|--------|----------|--------|--------|--------|--------|---------|
| A     | 1.4189 | 1.0137 | 0.4052 | 53.256   | 0.2141 | 0.0714 | 5.6777 | <0.001 | HS      |
| B     | 1.6874 | 0.8865 | 0.801  | 42.017   | 0.379  | 0.0612 | 2.40   | <0.01  | S       |

SD = Standard Deviation, SE = Standard Error, S = Significant HS= Highly significant

Table 7: Total Effect of Therapy in 30 Patients (Subjective Symptoms) Percentage Wise

| Sl No | Groups | Total Effects (%) |
|-------|--------|-------------------|
| 1     | A      | 53.20             |
| 2     | B      | 42.01             |

Subjective symptoms are found to be relieved to the maximum in Group A (53.2%) than Group B (42.01%).

## DISCUSSION

After the completion of therapeutic trial there was marked improvement in the feeling of well being, physical and mental fitness in two groups but the incidence of improvement was higher in Group A i.e. *Odana Kalpana* and *Virecana* group. *Ayurveda* has given much emphasis on *Shodana* (Purification body), either with or before starting any treatment (*Caraka Samhita*). So *Triv it cur a*, was mild purgative, was administered which also facilitated the better action of the drug. In addition to this it also help to bring back the normal function of *pitta*. Among the symptoms taken into consideration as subjective parameter in Group A and Group B of *amlapitta*, highly significant

results were found in *Udara Guruta*, *Amla Udgara*, *Sharira Gaurava*, *Angasada*, *Klama*, *Avipaka* and *Shiro ruja*. Hence, it is revealed that the drug was very effective in treatment of such symptoms. In Group A significant result were found in *Chardi* and *Hrit Shula*. In Group B significant result were found in *Chardi*, *Aruci*. Symptom of *Vidbeda* was not found in any patient. 50% of patients in both Groups mentioned that they have passed very well formed stools after administration of drug. Most of the patients suffered from *Amla Utklesa* and it had been reduced within 7-10 days. On the basis of overall result it was observed that more improved subjective parameters were found in *Amlapitta*



patients of Group A. (*Odana Kalpana + Virechan Yoga*).

### **Probable mode of action of Rakta Shali Mantha (*Odana Karama*)**

According to *Caraka* Old *Shali* generally not aggravates *kapha*. *Acarya Caraka* has classified all the diets and drinks according to their taste, potencies, *vipaka* and specific actions under twelve groups. *Shali* is grouped under *sukha dhanya* (corn with bristles). This *Shali* type is cold in potency and sweet in taste as well as *vipaka*; they do not produce much of *Vata*; they are bowel-binding; they produce stool in small quantity; they are unctuous and nourishing, and they produce semen and urine in considerable quantity. Of them, *Rakta Shali* is the best in as much as it relieves thirst and alleviates all the three vitiated *dosa* *Acarya Susruta* also expounds about the specific *Ahara dravya*. The most important presenting sign of *Amlapitta* is burning sensation of the stomach, heart and throat. This sign is most prominent and is in the middle stage of the disease. This is due increasing *drava guna* and *vidagdhatva* of the *pitta*. Because of the *madhura rasa* of *Shali*, *pitta dosa* is pacified. *Prithvi bhuta* which is present in the *manth* absorbed the excessive *drava guna* and corrected the composition of *pitta*. *Avipaka* (indigestion), fatigue, heaviness of the body and stomach and anorexia were due to *manda agni*. *Shali* having the property of *dipana karma* also acted against *manda agni*.

### **CONCLUSION**

*Odana Kalpana* is a safe, economical and effective remedy for the management of *Amlapitta*. Purification or *Shodhana karma* with *Trivrit churna* helped to enhance the drug efficacy. Therefore it can be concluded that *Odana Kalpana* with *Trivrit Churna* as *Virechan yoga* or Bio Purification are more effective treatment

modalities and can be used effectively in the management of *Amlapitta*.

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Source of support: Nil

Conflict of interest: None Declared