

# An Aetiopathological Study of Amlapitta w.s.r. to Acid Dyspepsia

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## Abstract

*Amlapitta* is a disease which is commonly found in almost all parts of the world. In the present time people are attracted towards the junk foods; they are changing their diet pattern, life style and behavioural pattern, working with stress and strain. So, the people are becoming stressful with worry, tension, and anxiety causing so many psychological disorders, which hampers the digestion and is causing acidity, gastritis, dyspepsia, ulcer and anorexia. All these symptoms can be covered under the broad umbrella of *Amlapitta* in Ayurveda. Due to similarity in the sign and symptoms of *Amlapitta* and Acid dyspepsia or Acid peptic diseases the study is carried out to find the etiopathogenesis of *Amlapittaw.s.r.* to Acid Dyspepsia or Acid peptic diseases. Among the nidana factors,

**Aharaja Nidana:** Among 40 patients, 77.50% patients were found consuming *Ushnatikshnaahara*, followed by 75% with excessive intake of *Katu rasa sevana*. *Adhika Lavana* consumption was seen in 32.50%, whereas *adhika amla rasa* consumption in 47.50%, *Rukshanna* 57.50%, *Pishtanna* 72.50%, *Ikshu vikara* in 37.50%, *Kulatthasevana* 12.50%, *Adhyashana* was seen in 47.50% of the cases. 50% *Atisnigdha*, 20% *Vidahi*, 10% *Viruddha* and 5% patients were found consuming other types of *Aharaja Nidana*.

**Viharaja Nidana :** *Atapasevana* was seen in 60% of the cases and *Avyayama* was observed in 75% patients, whereas *Analasevana* was observed in 57.50% patients, *Ratri jagarana* in 35% patients, whereas *Diwaswapna* in 42.50% cases, *Vegadharanain* 27.50% and *Adhikavyayama* was observed in only 7.50% patients.

**Manasika Bhavatmaka Nidana :** *Shoka* was found in most of the patients (75%), whereas *Raga* was found in 72.50%, *Chinta*, *Moha* and *Krodha* each were found in 70% of the patients. *Bhaya* was seen in 67.50% patients, *Chittodvegain* 57.50% patients, *Udvega* in 35% patients, *Irshya* was seen in 15% and *Lobha* was observed in 5% patients.

**Others:** *Bijadosha* was found in 60% patients.

**Keywords:** *Amlapitta*, *Nidana*, Acid peptic diseases

## INTRODUCTION

Disease means “A pathological condition of the body that presents a group of symptoms peculiar to it and that sets the condition apart as an abnormal entity differing from other normal or pathological body states.” *Amlapitta* is a disease which is commonly found in almost all parts of the world. Peculiarities of

this disease are, increased prevalence, vast field of manifestation of symptoms, requires prolonged dietetic control, if not treated in proper time, it may create major problems, relapses are very common. Nowadays the people are attracted towards the junk foods; they are changing their diet pattern, life style and behavioural pattern, working with stress and strain. So, the people are becoming stressful with worry, tension, and anxiety causing so many psychological disorders, which hampers the digestion and is causing acidity, gastritis, dyspepsia, ulcer and anorexia. All these symptoms can be covered under the broad umbrella of *Amlapitta* in Ayurveda. Acharya Charaka has mentioned that if a person is under some psychological problem even the wholesome food taken in proper quantity does not get properly digested. Though it is very common disease encountering in the present population with more or less severity, it is the one that which bears the direct impact of the dietetic errors that a person indulges.

In the *Nidanas* of the *Amlapitta* mainly causing dietary factors, addiction of alcohol, tobacco chewing, or smoking are chiefly associated ones and commonly found.

The first recorded medical literature *Charaka Samhita* which bases the very systematic and scientific description has not mentioned the disease *Amlapitta*. Though a scattered references and the pathogenesis is found in *GrahaniAdhyaya* that *Annavisha* (food poisoning) when associated with *Pitta* causes burning sensation, morbid thirst and mouth diseases leads to *Amlapitta* and such other *paittika* disorders.<sup>1</sup>

*Kashyapa Samhita* is the first text which describes the disease *Amlapitta* as a separate entity. It is also the first text which has counted the *manasika bhavas* (psychological factors) as a chief cause of the disease and analysed first it on the *doshik* basis. Whereas *Kashyapa* believed that the disease is caused by the vitiation of *Tri-doshas* causing *Mandagni* leading to *Vidagdhajirna* ultimately manifesting as *Amlapitta*.<sup>2</sup>

*Madhavakara* has classified the disease into two types namely *Urdhwaga* and *Adhoga Amlapitta*.<sup>3</sup> *Madhavakara* followed the *Charaka* that the disease is due to vitiation of *Pitta* which is already increased due to its own causes. While describing the pathogenesis of *Amlapitta* *Acharya Charaka* has mentioned that the *ama visha* when gets mixed with *pitta* the disease *amlapitta* is developed.

The word Acid dyspepsia is composed of two components dys + pepsia. Impairment of the power or function of digestion usually applied to epigastric discomforts after meal. Dyspepsia is associated with excessive acidity of stomach i.e., Hyperacidity. This word is composed of two components i.e., hyper and acidus. Hyper means over or excess and acidus means sour. So, a straight meaning may be derived as excess of acid i.e., any acid not particularly the HCL in stomach and a disease which contains this abnormal pathology is defined as hyperacidity.

Due to the similarity in causative factors & signs and symptoms, one can easily correlate these two diseases as a same disease to some extent. It is not always necessary that each sign & symptoms of the diseases should be met with each other but the maximum possible findings are suggestive of the similarity between both the diseases. So, in the present study Hyperacidity has been taken as *Amlapitta* according to the Ayurvedic point of view and with this thing in mind clinical study was carried out to find the etiopathogenesis of *Amlapittaw.s.r.* to Acid Dyspepsia or Acid peptic diseases.

No specific disease is seen similar to *Amlapitta* in Modern medicine. The signs and symptoms of *Amlapittadisease* as given in modern medicine are under title of Acid peptic disease. There are number of diseases in acid peptic diseases like - Acute gastritis, chronic gastritis, peptic ulcers, gastro oesophagealreflux diseases, non-ulcer dyspepsia, hyperchlorhydria syndrome, Menetrier's disease etc.

Peptic ulcers (gastric and duodenal ulcers) have similar symptoms related to *Amlapitta*. But the pathophysiology and histopathology said that ulcers can't be included in *Amlapitta*. It may be complication of *Amlapitta*.

In treatment of *Amlapitta*, *Vamana & virechana karmas* are mentioned but both these *karmas* are contra indicated in ulcers. Therefore, we can't include peptic ulcers in *Amlapitta*. So, the Acid peptic disease without peptic ulcer can be included in *Amlapitta*.

This chapter is described for the purpose of getting clinical co-relation and similarity between *Amlapitta* and non-ulcerative acid peptic disease.

## AETIOLOGY OF ACID PEPTIC DISEASES: -

### 1. Bad food habits: -

- Irregular pattern of food intake.
- Excessive intake of tea, coffee, cold drinks, caustic soda etc.
- Excessive use of some masalas, chillis and other irritant substances in food.
- Fatty meals cause delayed gastric emptying.
- Deficiency of vitamin-A & protein in diet.

In *Ayurveda*, Ancient *Acharyas* said that *Atibhojana*, *Virudhabhojana*, *Abhojana*, *Vidahi & Katu Annapanasevana*, *Madhya sevana* etc. are the main causative factors for *Amlapitta*.

### 2. Psycho-somatic factors: -

Psychic factors like mental stress, anxiety, depression leads to the acid peptic diseases. It leads to hyperchlorhydria. Due to this, the secretory & motor functions of the gastro intestinal tract are disturbed.

In *Ayurveda*, *Manasika Bhavas* like *Kama*, *Krodha*, *Bhaya*, *Lobha*, *Moha* etc. are responsible for the *Ajirna* which lead to *Amlapitta* disease.<sup>4</sup>

### 3. Drugs & addictions: -

Aspirin and other non-steroidal anti-inflammatory drugs like diclofenac, Ibuprofen etc. inhibits cyclooxygenase, decreases prostaglandin E and decreases mucosal blood flow resulting in damage of gastric or duodenal mucosa. Steroids also damage the mucosal membrane & become responsible factor for ulcers. Theophylline, calcium channel blockers, progesterone, tetracycline, potassium chloride, bisphosphonate etc. drugs are delaying gastric emptying.

Addictions like alcohol, smoking, tobacco chewing etc. are damaging factors of gastro-duodenal mucosa. High concentrations can cause gastric erosion.

In *Ayurveda*, *Vidahi & Viruddha Bhojan Sevana*, *Annahin madhyasevana* etc. factors are also given as a causative factor of *Amlapitta*.

### 4. Infections: -

#### • Bacteria :-

Mainly Bacteria like *H-pylori* is responsible for the acid peptic diseases. *H-pylori* organisms grow in the mucous secreting cells of the stomach lining and create ulcers or erosions or inflammation in gastric mucosa.

#### • Fungal or viral :-

It may develop in people with a prolonged illness or an impaired immune system. In *Ayurveda*, *Paryushita Anna*, *Dustannasevana* is given as causative factors of *Amlapitta*.

This type of *Dushita Anna* may have an infectious property.

**5. Other associated diseases: -**

- Ulcerative colitis
- Crohn's disease
- Hiatus hernia
- Hypothyroidism Sarcoidosis
- Diabetes Mellitus
- Zollinger Ellison syndrome (Gastrinoma)

All these diseases lead the aggravation of the Acid Peptic disease process. Crohn's disease & sarcoidosis lead to duodenitis. Hiatus hernia, partial gastrectomy, ulcerative colitis & Crohn's disease are responsible for the chronic gastritis.

Zollinger Ellison syndrome is responsible for peptic ulcers. Diabetes mellitus may lead diabetes gastroparesis. Hypothyroidism & Hypercalcaemia may lead to organic dyspepsia.

**6. Genetic factors: -**

Modern medicine has given the 'O' blood group as a predisposing factor for the acid peptic diseases. Hyperacidity syndrome is seen mainly in person with 'O' blood group.

In *Ayurveda*, *Pitta Prakriti* is also responsible for the process of disease aggravation.

**7. Allergic & Auto immune disease factors: -**

Sometimes eosinophilia due to allergic disease causes eosinophilic gastritis. The atrophic gastritis & gastric atrophy may result when antibodies attack to the gastric mucosa. It also tends to occur in those who had partial gastrectomy

These causative factors can be considered as an *Ama Dosha* in *Ayurveda*.

**8. Radiation injury: -**

Radiotherapy results in mucosal erythema & friability. Superficial ulceration telangiectasia, prominent rugal folds and antral narrowing. Severe damage may lead to scarring, obstruction or perforation.

**9. Idiopathic: -**

Sometime no causative factor was found for acid peptic disease. Menetrier's disease is a form of gastritis whose cause isn't known

**COMMON SYMPTOMS AND SIGNS OF THE ACID PEPTIC DISEASES: -****1. Heart burn****2. Regurgitation / Water Brush: -**

These two are the cardinal symptoms of the gastro oesophageal reflux disease. Burning and / or rising retrosternal discomfort is complained by the patient. It is accompanied by reflux of gastric secretions in to the mouth. Water brush, which means the regurgitation of acid or bile in to the mouth.

In *AmlapittaTikta* / *Amla Udgara* and *Hrit-kantha Daha* are given as a cardinal symptom by *Madhavakara*. Result or regurgitation of bile in to the mouth is *Tiktodgarawhile* Acid regurgitation is *Amlodgara*. Heart burn in similar to *Hrit Kantha Daha*, both are due to burning sensation in retrosternal area.

**3. Dysphagia:-**

It is cardinal symptom of the G.E.R.D. painful swallowing is present, which signifies oesophagitis and a stricture of the lower oesophageal sphincter.

#### 4. Altered Appetite, Sensation of Satiety & Anorexia

These symptoms are seen in all the acid peptic diseases in mild or severe form. *Aruchi* & *Avipaka* are given as cardinal symptoms of *Amlapitta*. Altered appetite, sensation of satiety & anorexia are the responsible for Indigestion (means *Avipaka*) and loss of interest in food (means *Aruchi*)

#### 5. Vomiting And Nausea: -

Both these symptoms are mainly seen in acute & chronic gastritis. Non ulcer dyspepsia & duodenitis may have nausea or vomiting sometimes. It is mainly due to irritation of the gastric mucosa.

*Chhardi* & *Utklesha* are also given as few among the cardinal symptoms of *Amlapitta*. Nausea has similarity with *Utklesha* while vomiting with *Chhardi*.

#### 6. Epigastric pain:-

Pain in epigastric region is present in severe type of chronic gastritis, hyperacidity syndrome and Menetrier's disease. It is mainly due to excessive irritation of the mucous membrane of the stomach. Usually, it is found in less severe form in other Acid-Peptic diseases.

In *Amlapitta* *Udarashula* is found in rare case especially when *Udaradhman* become severe. The nature of this *Udarashula* is mild and less severe than *Shula roga*.

#### 7. Heaviness in abdomen:-

It is due to anorexia, altered appetite & sensation of satiety which lead to indigestion & delayed gastric emptying. Impaired motor function of the stomach may produce this symptom.

Heaviness in abdomen is similar to *Udaradhman* which is a symptom of *Amlapitta*.

#### 8. Hematemesis:-

This symptom occurs in acute type of gastritis when the erosion and haemorrhage in mucosa of the stomach is there. *Acharya Madhavkara (M.N.)* has given *Vantam Raktabhamas* a symptom of *Urdhvaga Amlapitta*. It is called haematemesis.

#### 9. Anaemia:-

Pernicious anaemia is found in chronic gastritis & Menetrier's disease. It is due to hypochlorhydria or achlorhydria. *Pandu* has been given as a symptom and/or complication of *Amlapitta* by various *Acharyas* of *Ayurveda*.

#### 10. Fatigue: -

It is defined as a state of exhaustion or a loss of strength or tiredness sensation without any exercise. It is found in chronic gastritis and in Menetrier's disease. It is due to avitaminosis of B<sub>12</sub> and hypoproteinaemia.

In *Amlapitta*, *Klamais* found which has similar definition. It is due to *Amadosha*.

#### 11. Diarrhoea:-

Diarrhoea is common in hyperacidity & Menetrier's disease. It is due to indigestion of protein materials or hyperactive motor function of the gut or large intestine.

In *Ayurveda*, *Vidbhedais* found in *Amlapitta*. It is in rare case. It is due to *Avipaka* because *Vidbheda* or *Vibandhais* the cardinal features of *Ajirna* given by *Acharya Vagbhatta*. *Madhavakara* has given *Vidbheda* as a symptom of *Adhoga Amlapitta*.

### COMPLICATIONS OF ACID-PEPTIC DISEASES:-

There are following complications found in non-ulcerative acid peptic diseases. peptic ulcers, stricture of the oesophagus & lower oesophageal sphincter, Weight loss, Cachexia, Anaemia



Stricture of the oesophagus and lower oesophageal sphincter were found in gastro oesophageal reflux diseases. Excessive exposure of the oesophagus due to acid reflux from the stomach causes Reflux oesophagitis or Erosion in oesophagus mainly in the lower part of the oesophagus. The recurrent procedure of this type of reflux leads to the aggravation of the process of stricture. Deeper lesions heal with fibrosis and resulting in an oesophageal stricture.

Anaemia, Cachexia and Weight loss are found in Chronic Gastritis and Menetrier's diseases. In these diseases, mucous membrane of the stomach is totally damaged so these are Hypochlorhydria to Achlorhydria condition. Pepsinogen is not secreted so the primary digestion of the protein diet is not possible. Acid, the important stimulant of the secretin is lacking in this condition. So, exocrine, Pancreatic secretion may be deficient. Therefore, the digestion of protein & fat is not possible in small intestine also. So, hypoproteinaemia is present in the patient. This leads to Weight loss & Cachexia. Avitaminosis of B<sub>12</sub> is found due to lacking of Intrinsic factors in stomach.

Intrinsic factor secreted by Parietal cells of the stomach membrane is responsible for the absorption of vitamin-B<sub>12</sub> from the G.I. tract. Intrinsic factor is absent in Chronic Gastritis (mainly severe atrophic gastritis & gastric atrophy) and Menetrier's disease due to loss of Parietal cells. So Pernicious Anaemia occurs in these types of patients.

In *Amlapitta*, *Upadravas* may be found like *Pandu*, *Jvara*, *Shotha*, *Dhatuksheenata*, *Shoola*, *Atisara*, *Amashayakshata*.

*Pandu* is due to lack of Intrinsic factor. *Shotha* & *Dhatu ksheenata* are due to Cachexia. Hypoproteinaemia and Indigestion of food is responsible for Cachexia. Hypoproteinaemia lead to aggravating process of oedema (*Shotha*). *Atisarais* present due to *Avipaka (Ajirna)*.

*Amashayakshata*, *Shoola* (mainly *AnnadravaShoola* and *ParinamaShoola*) are also present as a complication in some of the patients. They are correlated with Peptic Ulcers in modern medicine. Peptic Ulcer are given as a complication of Acid Peptic disease (mainly Atrophic Gastritis) in modern medicine. So, all the *Upadravas* of *Amlapitta* are similar to the complications of Acid Peptic diseases.

## PROGNOSIS OF ACID PEPTIC DISEASES

- Acute Gastritis, Chronic Superficial Gastritis & early detectable Gastro esophageal reflux diseases are curable easily. But they are difficult to diagnose as early as possible.

*Acharya Madhava* said that *NavinaAmlapittais Sadhya*.

- Chronic Atrophic Gastritis, Gastric Atrophy, Menetrier's disease and complicated G.E.R.D. are become very difficult to cure. Complicated G.E.R.D. may be curable by surgical process. Excessive chronicity of these disease Irreversible condition. So, they become incurable.

*Acharya Madhava* said that *Purana Amlapittais Krichhra Sadhya* or *Yapya*.

- Chronic Gastritis (Particularly atrophic gastritis) and Menetrier's disease are present with Pernicious Anaemia, loss of weight, diarrhoea & peripheral oedema. Both are incurable disease.

*Acharya Kashyap* said that if *Amlapitta* present with *Upadravas* like *Pandu*, *Shotha*, *Atisra*, *Dhatuksheenata* etc., it is *Asadhya*.

## MATERIALS AND METHOD

The study is oriented to,

1. To study the etiological study of *Amlapitta*

2. To find the etiopathology of Acid Dyspepsia in Ayurvedic parlance.

### **Hypothesis:**

**Null Hypothesis:** The aetiology and clinical features of *Amlapitta* cannot be compared to the disease Acid dyspepsia.

**Alternative Hypothesis:** The aetiology and clinical features of *Amlapitta* can be compared to the disease Acid dyspepsia.

### **Materials and methods:**

- **Literary** - All classical *Ayurveda* texts and available modern medicine books related with *Amlapitta* and Acid dyspepsia or Hyperacidity references were analyzed.
- **Clinical Materials-**
  - **Source of data:** 40 Patients suffering from *Amlapitta* were selected from O.P.D. and I.P.D. of Major S.D. Singh P.G. Ayurvedic Medical College and Hospital, Farrukhabad after fulfilling the inclusion and exclusion criteria.
  - **Inclusion criteria**
    1. Patient of either sex between age group of 20 to 60 years were selected
    2. Both freshly detected and treated cases of *Amlapitta* were selected
    3. Patient with classical signs and symptoms diagnosed to be suffering from *Amlapitta*
    4. 40 patients were selected for this research from O.P.D. and I.P.D. of Major S.D. Singh P.G. Ayurvedic Medical College and Hospital, Farrukhabad.
  - **Exclusion criteria**
    1. Patient suffering from any other systemic disorders
    2. Patient of age group <20 and > 60 years.
  - **Diagnostic criteria:** Diagnosis was made on the basis of classical symptoms of *Amlapitta* and Acid dyspepsia or Hyperacidity syndrome as well as from laboratory investigations wherever found necessary.
  - **Investigations:** Patients were subjected to the following investigations wherever found necessary to rule out certain pathologies:
    1. Complete Blood Culture
    2. Barium meal X-ray
    3. Endoscopy

**Type of Study:** Descriptive study and no intervention of therapy

### **DISCUSSION**

The *Annavahasrotasi*, i.e. elementary canal is the one that bears a direct impact of all the dietetic errors that a person indulges. Improperly chewed or hurriedly gulped rough and hard portions of food are not properly digested. Many a times the simple *Agnimandya* leads to *Vidagdhajirna* (dyspepsia) in the initial stages and if it is neglected, leads to *Amlapitta*. *Amlapitta* is a disease caused due to vitiation of certain attributes of *Pitta* like the *Drava guna* (fluidity) and *Amla guna* (sourness) causing *Vidagdhajirna* at the initial stages and later causes inflammation and corrosion of the *Sleshmadhara kala*

of the *Amashayai*.e. mucous membrane of the stomach and duodenum. In modern science it can be correlated that *Vidagdhajirna* is a type of simple dyspepsia and *Amlapitta* as gastritis.

*Charaka* has not mentioned the disease *Amlapitta* separately even though he quoted the word *Amlapitta* in several contexts at various places. *Charaka* while describing the *NanatmajaVyadhis*, he included the *Pittaja* diseases like *Dahaka*, *Dhumaka*, *Amlaka* and *Vidaha*. These are seen in acid peptic disorders and indicate the *Pittolbana* condition.

*Sushruta* and *Vagbhata* have not mentioned the word *Amlapitta*.

*Kashyapa* was the first person who described the disease along with its treatment.

*Madhava Nidana - Madhavakara* has described *Amlapitta* into 2 types *Urdhavagata* and *Adhogata* depending upon the site.

### **Hetus (Nidana)**

Most of the aetiological factors of *Amlapitta* are related with the diet and habits. If one does not follow the *Ashtavidha Ahara Vidhi Visheshayatana* his *Agni* will be diminished due to irregularities in the digestion and finally will cause *Amlapitta*.

### **Adhyashana–**

*Charaka* has advised to take the food only after the previous meal is digested. If anyone takes the food with irregular intervals without proper digestion of the previous food, it may cause aggravation of *Doshas*, due to this insufficient rest to the stomach, the mucous membrane will be hampered which leads to local damage.

In many urbanized civilizations everyone is working in the industries, MNC's where the people have the habit of eating now and then, eat snacks, drinks tea or coffee, smoking, chewing tobacco cause *Agnidushti* vitiate digestive fire, ultimately produce the disease *Amlapitta*.

### **Pishtanna–**

The flour of grains contains more carbohydrates. They are easily fermented, leads to heaviness of the abdomen and impairment of gastric fire.

### **Ikshuvikara–**

*Chakrapani* while commenting on this says when the juice is extracted by the machine, the skin as well as the nodes of the sugar cane gets passed and when it is kept for some time it becomes stale. So, it may cause burning sensation. *Charaka* says *Phanitais* the most unwholesome among *Ikshuvikaras*.

### **Paryushita Annasevana–**

When the food is kept overnight, especially in hot days leads to fermentation of the food substance. Fungus can grow on them which are very dangerous and poisonous. Freezing the food stuff for many days also gives the same result.

### **Dushtannasevana–**

It is the adulterated food. If it is over cooked or uncooked, unripe, putrefied it will cause damage to the mucous membrane. Now a days the farmers are using the insecticides and pesticides for better crop. These poisons will damage the health.

### **Snigdhatisevana–**

The excessive use of oils and fats diminishes the *Agni* and cause *Agnimandya*. Because it contains *Prithvi* and *Ap Mahabhutas*. It is heavy to digest and its excessive intake ultimately hampers the digestive power.



**Rukshanna–**

Excessive use of *Rukshadravyas* the *Vata dosha* will be aggravated which will ultimately cause *Vishamagni*.

**Gurubhojana–**

The heavy foods take longer time for digestion. The *Agni* has to work for digestion for prolonged period. It may cause *Agnidushti*.

**Atyushna–**

Continuous use of *Ushnaahara* aggravates *Pitta dosha*, with the *Tikshna tattva* the irritation of mucosal membrane takes place.

**Atyamla–**

*Amla* having the property of *Lekhana karma*, it will scrap the mucous membrane and finally produce the ulcers, burning sensation is increased due to increased *Pitta dosha*.

**Atitikshnasevana–**

These substances are corrosive and irritant to the mucous membrane as the *Tikshnaguna* has the predominance of *Agni Mahabhuta*.

**Akala bhojana–**

The stomach secretes the digestive juices at the usual time at which it receives the food. If the food is not available, the secreted acids have its deleterious effects on the mucous membrane leading to autodigestion. That is why *Charaka* has advised the *Kala bhojana*.

Less intake of food causes *Dhatukshaya* and aggravates *Vata* which in turn produces *Vishamagni*, *Karshana*, ending with *Agnimandya* and malabsorption. Finally, it leads to Anaemia, which is the *upadrava* of *Amlapitta*.

**Abhishyandi–**

It will increase the fluidity of *Dosha*, *Dhatu*, *Mala* and *Srotas*. *Prithvi* and *ApMahabhuta* is attributed into *Abhishyandi* actions. As these are *Pichchhila* (sticky) and *Guru* in nature, they obstruct the *Rasavahasrotas* and causes indigestion *Gaurava* etc.

**Climate conditions (Kala pravrutti) –**

The rainy season is responsible for *Amlavipaka* or increase of acidity in water and foods, which in turn vitiates *Pitta dosha* and *Kapha dosha*. Body becomes weak and the power of digestion is also weakened. The power of digestion always depends upon bodily strength.

**Tobacco –**

Smoking and chewing can be the causative factor for the disease due to its *TikshnaGuna* the rupture of the mucosal membrane takes place.

**Manasika–**

The mental stress and strain lead to irregular fluctuations in the production of gastric secretions ultimately causing damage to the gastric mucosa.

**Purvarupa–**

*Purvarupa* of the disease is not mentioned in classics even though *Ajeerna* can be considered as *Purvarupa* of *Amlapitta*. In this stage the increased *Drava guna* and *Amla guna* of *Pitta dosha* take place and occasionally the regurgitation occurs with sour taste.

**Rupa –**

In case of *Ajeerna*, patient feels the *Udgara* as *Madhura* and in *Amlapitta* the *Udgarais* sour in taste.

**Avipaka–**

The patient is unable to digest even in small quantity due to vitiation of *Agni*.

**Hrit-kantha daha–**

Due to increased *Amlata* by the regurgitations, the *Annavaahasrotas* and *Kanthais* affected by the *Amla guna*. It leads to *Lekhana* of mucous membrane and causes erosions of the surface. To subside the thirst and burning sensation people take cold substances, milk and sweets etc. Quantity of *Dravata* becomes more and suppresses *Agni* which results in distension of abdomen also.

**Utklesha–**

Due to excessive *Dravata* of *Pitta dosha* gastric contents increase and damage the gastric mucosa and cause *Amlapitta*.

**Gaurava–**

Due to *Agnidushti* the *Ahara* which was taken in *Amashaya* becomes stagnate, gets fermented and causes *Amlapitta*. As the food stagnates for more time in the abdomen the patient feels heaviness in the abdomen.

**Correlation between Hyperacidity and Amlapitta**

Hyperacidity	Amlapitta
▪ Heart Burn	→ <i>Hrididaha</i>
▪ Chest Pain	→ <i>Hridshoola</i>
▪ Abdominal distension	→ <i>Udaradhamana</i>
▪ Sour Belching	→ <i>Amlodgara</i>
▪ Acid Refluxes of the food taken	→ <i>Amlotklesha</i>
▪ Nausea	→ <i>Utklesha</i>
▪ Loss of Appetite	→ <i>Aruchi</i>

The above-mentioned similarity shows correlation between two diseases by which one can easily treat hyperacidity as *Amlapitta*.

**Samprapti–**

While explaining the disease *Kashyapa* explained that the extreme vitiation of *Pittadosha* condition "*Bhuyishtampittadushana*".

*Sushruta* explained that the *Agni* is present in the body in the form of *Pitta*. In this, *Agni* is diminished due to the *Nidanasevana*. The food which is not properly digested becomes *Vidagdha* and produces *Shuktapaka* which is having increased *Amla guna* in the stomach. If one has no control on eating due to greed vitiated *Pitta dosha* finally produces *Amlapitta*. And he also explained that the milk poured in curd pot which is not cleaned properly immediately attains sourness and inspired in a brush form; in the same day repeatedly eaten food gets improperly burnt in acidity if stomach is responsible for *Amlapitta*.

The disease *Amlapitta* is a result of *Pitta kaphavritavata* occurring in *Annavaahasrotas*. *Manovahasrotas* also plays an important role in the manifestation of the disease.

In *Amlapitta* initially the *Dravaguna* is increased, the digestive fire is diminished, and whatever food is consumed, takes longer duration for digestion and is stagnated in the *Amashaya*. Then it becomes fermented and produces *Annavisha*. It vitiates *Rasadhatu* leads to *Agnimandya* and indigestion by increasing *Drava guna* and produces *Amlapitta*. The disease takes a longer time to cure that is why considered as *Chirakari*. If the symptoms subside again due to *Jihvalaulya* (greedy) the individual involves in *Mithyahaaravihara* the disease is provoked. This cycle goes on and the disease becomes

chronic and produces *Upadravas* like *Jvara*, *Atisara*, *Pandu*, *Shula*, *Shotha*, *Shrama* etc. So, the *Sampraptiof Annavahasrotas* has produced the disease in different stages like *Ajirna*, *Amlapitta* and *Parinamashula* etc.

In modern medicine the *Amlapitta* has been correlated by the previous scholars as Hyperacidity, Hyperchlorhydria, Hypochlorhydria, Gastritis, Peptic ulcer, Duodenal ulcer etc.

**UpashayaAnupahaya–**

There is much similarity between the *Vidagdhajirna* and *Amlapitta*. The *Ardrakasvarasa* or *Shuntichurna* can be given to the individuals, if *Vidagdhajirna* the symptoms subsides and it is antagonist to the *Amlapitta*.

**Upadrava–**

"*Jvaratisarapandughnamshulashothaaruchibhramah*"

All these diseases are due to vitiation of *Rasavahasrotas* due to formation of *Ama* the *Dhatu parivartana* is not proper leading to nutritional deficiency and producing these diseases.

**Sadhyasadhyata:**

When short duration it is *Sukhasadhya*, Long duration i.e. Chronic it is *Yapya*, when it is chronic and if the patient doesn't follow the dietetic code and conduct it becomes *Krichrasadhya*. The disease with complications and loss of *Dhatu*s doesn't get cured.

**Line of treatment:**

*NidanaParivarjana*–for prevention of the disease.

*Shamana*- with *Madhura*, *Tikta rasa*, *Sheetaguna*, *Madhura vipaka* drugs.

*Shodhana* - *Vamana*, *Virechana*, following *Basti*.

**Discussion on Observations:**

**Age:**

Based on the observations of the age wise distribution of patients of *Amlapitta*, majority of the patients were between 20 to 40 years of age group. This indicates that this period of age being most productive in one's life how they neglect the dietary regimen and fall prey for the junk food leading to the incidence of *Amlapitta*. This age is also the age of pitta predominance. The reduced incident in between ages 41 to 60 years indicates at the care they take in that age group after having gone through the tough time with the drug and disease in their past. Apart from the foods, anxiety caused due to instability of economic status and struggle for upcoming into the social scenario also cannot be neglected (Table – 1).

Age (in year)	Total	%
20 – 30	14	35.00
30 – 40	12	30.00
41 – 50	8	20.00
51 – 60	6	15.00

**Occupation:**

As per the occupational wise distribution, the service men (32.50%) of the patients appear apart from their irregular food and drinking habits are subjected to stress and strain with their service which might have lead to more incidence of the disease. As regards to the second higher percentage in the

occupation wise distribution i.e. about 30% were housewives. It can be said that apart from taking care of the whole family the women are loaded with other responsibilities of getting their children ready for the schools, helping them in the home work etc, which contribute to the incidence of this disease. Lower economic status, unhygienic food habits, must be the reasons for the disease in the labourers (Table – 2).

<i>Occupation</i>	<i>No. of pts.</i>	<i>%</i>
House work	12	30.00
Service	13	32.50
Business	8	20.00
Labourers	7	17.50
Others	0	0.00

**Socio-economic status:**

As per the socioeconomic status middle class people i.e. 50% followed by 40% Lower middle class were seen suffering more with this disease may be because of the stress induced by the struggle to become upper middle class (Table – 3).

<i>Socio-economic status</i>	<i>No. of pts.</i>	<i>%</i>
Poor class	3	7.50
Lower middle	16	40.00
Middle class	20	50.00
Upper middle	1	2.50

**Diet:**

The more percentage of vegetarians i.e. 55% were registered in the trial. The vegetarianism now-a-days is passing through many situations like eating raw foods in the name of *Amrutahara*, drinking water indiscriminately irrespective of individuals *Agni* capacity must be the reason for more incidence of this disease in vegetarians (Table – 4).

<i>Diet</i>	<i>No. of pts.</i>	<i>%</i>
Vegetarian	22	55.00
Mixed	18	45.00

**Dietetic Habits:**

More incidence of this disease in *Adhyashanap* patients (42.50%) and also in patients with irregular food habits establishes the correctness of aetiological factors. Surprisingly 40% individuals from *Samashana* have also prone to this disease may be because of stress and strain. (Table – 5)

<i>Food habit</i>	<i>No. of pts.</i>	<i>%</i>
Samashana	16	40.00
Vishamashana	5	12.50
Adhyashana	17	42.50
Viruddhashana	2	5.00

**Koshtha:**

In the case of categorization of *Koshtha*, *MadhyamaKoshth* were more with 62.50% and *KruraKoshtha* people were 32.50%. This may be due to aggravated *Vata* and *krurakoshtha* are more prone to constipation which is also one of the cause of *amlapitta*. (Table – 6).

<i>Koshtha</i>	<i>No. of pts.</i>	<i>%</i>
Krura	13	32.50
Madhyama	25	62.50
Mrudu	2	5.00

**Nature of work**

Maximum patients i.e. 50% were related with mental + physical type of works, while 37.50% were related to physical type of work. More number of individuals with physical strain were seen suffering from this disease when compared to those who do mental work which is again the causative factor for formation of *Ama* (Table – 7).

<i>Type of work</i>	<i>No. of pts.</i>	<i>%</i>
Physical	15	37.50
Mental	5	12.50
Physical and Mental	20	50.00

**Sleeping Habits:**

It was found that maximum percentage of the individuals were having disturbed sleep (65%) which also hinders proper digestion. When digestion is hindered the food attains *shuktapaka* leading to *amlapitta* (Table – 8).

<i>Sleep</i>	<i>No. of pts.</i>	<i>%</i>
Sound	14	35.00
Disturbed	26	65.00

**Addiction:**

Most of the individuals who had the habit of taking tea or coffee (85%) are prone to this disease because of improper brewing of tea without understanding the combinational effect of tea and ginger which establishes the more intake of ginger tea causes *Amlapitta*. Once *Amlapitta* takes root in the body further consumption of such tea aggravates the problem.

It appears in the same observation about the addiction induced *Amlapitta*. It goes without saying that tobacco chewing is due to *Ushna*, *Tikshna* and *Vyavayigunas* causes and aggravates *Amlapitta* (Table – 9).



<i>Sara</i>	<i>No. of pts.</i>	<i>%</i>
Tea / Coffee	34	85.00
Tobacco / Smoking	6	15.00
Alcohol	5	12.50
Pan / Masala	7	17.50

**Dominancy of Rasa:**

Among 40 patients, 77.50% patients were found consuming *Ushnatikshnaahara*, followed by 75% with excessive intake of *Katu rasa sevana*. *Adhika Lavana* consumption was seen in 32.50%, whereas *adhika amla rasa sevana* in 47.50%, *Rukshanna* 57.50%, *Pishtanna* 72.50%, *Ikshu vikara* in 37.50%, *Kulatthasevana* 12.50%, *Adhyashana* was seen in 47.50% of the cases. 50% *Atisnigdha*, 20% *Vidahi*, 10% *Viruddha* and 5% patients were found consuming other types of *AharajaNidana*. Naturally *Katu* (75%), *Amla* (47.50%) and *Lavana* (32.50%) *ahara* consuming individuals are prone to this disease proving the classical etiological factors to be correct (Table – 10).

<i>Type of Nidana</i>	<i>No. of pts.</i>	<i>%</i>
<b>AharajaNidana</b>		
Katusevana	30	75.00
Amla sevana	19	47.50
Adhikalavana	13	32.50
Ushna – Tikshna	31	77.50
Vidahi	8	20.00
Viruddha	4	10.00
Atisnigdha	20	50.00
Others	2	5.00
Rukshanna	23	57.50
Pishtanna	29	72.50
Ikshu vikara	15	37.50
Kulattha	5	12.50

**Physical Exercise:**

The occurrence of *Amlapitta* in patients indulging in no physical exercise i.e. about 75% indicates the *Agnimandya* cause by no bodily exercise which leads to *Amlapitta*

**Sleeping Habits during daytime:**

It is observed that people who slept during day time are more in number in this study i.e 42.50%. Almost half of the patients were having the habit of *diwaswapna*, which indicates that the day sleep may lead to indigestion which causes *Ama* and ultimately leads to *Amlapitta*(Table – 11).

<b>ViharajaNidana</b>		
Atapasevana	24	60.00
Analasevana	23	57.50
Avyayama	30	75.00
Adhikavyayama	3	7.50
Ratri jagarana	14	35.00
Diwaswapna	17	42.50

**Emotional makeup:**

It was evident from the observation that different forms of emotional make up like that of *Shoka* was found in most of the patients (75%), whereas *Raga* was found in 72.50%, *Chinta*, *Moha* and *Krodha* each were found in 70% of the patients. *Bhaya* was seen in 67.50% patients, *Chittodveg* in 57.50% patients, As per the emotional make up of individuals who were tense, suffered more from this disease which re-establishes the classical textual etiological factors (Table – 12).

<b>Manasikabhavatmakanidana</b>		
Chinta	28	70.00
Krodha	28	70.00
Raga	29	72.50
Bhaya	27	67.50
Shoka	30	75.00
Lobha	2	5.00
Moha	28	70.00
Irshya	6	15.00
Udvega	14	35.00
Chittodveda	23	57.50

**Srotas:**

In the *Rasavahasrotas* wise distribution *Aruchi*, *Agnimandya* dominance i.e. 90% each shows the inter-relationship between those two symptoms and the disease (Table – 30). *Kukshidaha*, *Hruddaha* and *Swedadhikyai*. 75%, 40% and 37.50% respectively indicates the active involvement of *Raktavahasrotas* as per the principles of *Ashrayaashrayeebhaavas* (Table – 31). As per the

*Annavaahasrotas*, *Aruchi* (90%), *Kantadaha*(92.50%), *Amlatiktaudgara*(92.50%) and *Anannabhilahsa*(42.50%) is manifestation of classical picture of this disease as per direct and indirect quotations of *Madhava Nidana* and *Charakasamhita*. This proves that the *amlapitta* disease has a direct impact on the *annavaahasrotas* (Table – 13, 14, 15).

**Rasavaahasrotaslakshana wise distribution of 40 patients**

<i>Signs and symptoms</i>	<i>No. of pts.</i>	<i>%</i>
Aruchi	36	90.00
Hrillasa	23	57.50
Gaurava	31	77.50
Agnimandya	36	90.00
Klama	21	52.50
Kandu	3	7.50
Nidradhikya	6	15.00
Avasada	5	12.50
Pandu	7	17.50
Praseka	3	7.50

**Raktavaahasrotaslakshana wise distribution of 40 patients**

<i>Signs and symptoms</i>	<i>No. of pts.</i>	<i>%</i>
Santapa	8	20.00
Swedadhikyata	15	37.50
Mukhapaka	7	17.50
Hastadaha	5	12.50
Padadaha	5	12.50
Hriddaha	16	40.00
Kukshidaha	30	75.00

**Annavaahasrotaslakshana wise distribution of 40 patients**

<i>Signs and symptoms</i>	<i>No. of pts.</i>	<i>%</i>
Aruchi	36	90.00
Anannabhilashata	17	42.50

Amla tiktaudgara	37	92.50
Kantha daha	37	92.50

## SUMMARY AND CONCLUSION

The study entitled “*An aetiopathological study of Amlapittaw.s.r. to Acid Dyspepsia*” was carried out with the aim of searching aetiopathogenesis of *Amlapittavis-à-vis* Acid dyspepsia or Hyperacidity syndrome. At the verge of completion of this study the final conclusion can be drawn from the deductive reasoning of the relevant information and none deceiving data comprehended in the present study.

- A critical look back at the historical review as well as the classical and cardinal signs and symptomatology shows that the disease *Amlapitta* can be understood in modern parlance with Acid peptic disorders or Acid dyspepsia.
- The etiological factors of *Amlapitta* mentioned in the treatises of Ayurveda holds good even today in the present era.
- Present lifestyle that has disturbed the food habits gives rise to *agnimandya*, *vidagdhajirna* and finally leads to *Amlapitta*.
- The disease can be diagnosed basing on *Madhava Nidana* and *Kashyapa Samhita*.
- The other behavioral habits include chewing of tobacco, smoking, alcoholism, drinking hot beverages like tea mixed with wet ginger etc. are also to be considered for causing and aggravating the disease.
- The disease can be curbed in the stage of *purvarupa* i.e., in *Vidagdhajirna* stage.
- Regarding the *Nidana* factors mainly dietary, psychological and environmental factors were observed practically, it may be, asserted that none of these factors influence the expression of the disease in segregation. They interact amongst each other in a variety of permutations to compliment and compound the resultant effect on this pathological phenomenon.

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