



Review Article

INVOLVEMENT OF *DOSHAS* IN ACID PEPTIC DISEASE - A LITERARY REVIEW

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ABSTRACT

Doshas represent physiological activities going on continuously in our body. They form the elementary basis of living body along with *Dhatus* and *Malas*. A healthy state of body is maintained by the normal physiological equilibrium between *Tridoshas*. Any vitiation occurring to one among them can result in disequilibrium between *Doshas* and hence result in diseases. In the process of disease manifestation, not a single *Dosha* but all the three *Doshas* can get involved in varying degrees based on the *Nidanas*. The *Doshas* get aggravated due to various causes and produce different diseases by locating itself in various body parts. Therefore, one should understand a disease after examining the characteristics of a disease, its regional alterations and involvement of *Doshadi nidanas*. The literary review reveals that Acid Peptic Disease has more similarity to *Amlapitta* and all the three *Doshas* are involved in the manifestation of the disease. Vitiation of *Pachaka pitta*, *Prana vayu*, *Samana vayu*, *Apana vayu* and *Kledaka kapha* are evident and these are responsible for the manifestation of all the four diseases considered here viz. GERD, Gastritis, Gastric ulcer and Duodenal ulcer.

INTRODUCTION

Ayurveda is the ancient system of medicine which aims in the maintenance and restoration of health of individuals. It has its own scientific way of explaining theories and treatment modalities. This life science explains human body as well as diseases in terms of *Doshas*, *Dooshyas*, *Malas* etc, prime among them being *Doshas*. Any disharmony between the *Doshas* can affect the health of individual and is reflected in all diseases. Understanding the *Dosha* vitiation in diseases can help unveil the pathology behind the disease and intervene successfully in curing it. Since Acid Peptic Disease is showing increased prevalence, this disease is taken for the present study to understand the *doshas* involved in its manifestation.

Acid peptic disease is a collective term used to include many conditions such as Gastro Esophageal Reflux Disease (GERD), Gastritis, Gastric ulcer, Duodenal ulcer, Esophageal ulcer, Zollinger Ellison Syndrome (ZES) and Meckel's diverticular ulcer.¹

The first four diseases are more common among this. The common symptoms of Acid Peptic Disease include abdominal pain, nausea, heart burn, regurgitation, vomiting, loss of appetite, weight loss etc. These conditions are common in clinical practice and creates great discomfort in daily and social activities of the affected individuals. The prevalence of Acid peptic Disease is about 25-35% of the general population and their cost in terms of health care resource is huge.

MATERIALS AND METHODS

Literary review from Ayurvedic classics of diseases having symptoms similar to Acid peptic Diseases were done.

Diseases in Ayurvedic classics with symptoms similar to acid peptic disease

Though an exact equivalent cannot be seen in Ayurvedic classical texts which could exactly be correlated to Acid Peptic Disease, certain diseases which has similar symptoms are seen in *Amlapitta*, *Annadravasoola*, *Parinamasoola* etc.

Amlapitta

Amlapitta as the name suggests, is a disease caused by the *Pitta* when it attains excessive *Amlata*. *Amlata* is one of the normal properties of *Pitta* and in the *Prakupitavastha* increased *Amlata* is seen.

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Madhukosha commentary describes *Amlapitta* as the *Pitta* that attains increased *Amlata* due to *Vidaha*.^[2] Chakrapani Dutta also explains *Amlapitta* as the *Pitta* that has increased *amla* property.^[3]

The disease *Amlapitta* is not seen described in detail in *Brihatrayis* except mentioning it as a symptom among other diseases like:

- *Amlapitta* is manifested when the indigested food which is compared to food toxin gets associated with *Pitta*.^[4]
- While mentioning the benefits of milk, it is stated to be beneficial in the treatment of *Amlapitta*.^[5]
- While discussing *Agryas*, *Kulatha* is said to be a substance that is prime among those causing *Amlapitta*.^[6]
- While discussing the diseases caused by excessive use of saline substances, *Amlapitta* manifests.^[7]
- *Amlapitta* is mentioned as one among the diseases caused due to the intake of incompatible foods.^[8]
- *Rajamasha* is said to have *Amlapitta* alleviating properties.^[9]
- While mentioning the benefits of *Mahatiktakaghrita*, it is said to pacify *Amlapitta*.^[10]
- While describing the properties of *Kamsaharitaki*, it is said to possess *Amlapittahara* property.^[11]
- *Susruthacharya* mentions a disease *Amlika* that is caused by the excessive use of saline taste on which Dalhana comments it as a disease with sour eructuations.^[12]
- While discussing the symptoms of *Paittika hridroga* by *Vagbhatacharya* and *Pittaja nantmajavyadhi* in *Susruta samhita*, a condition called *Amlaka* is mentioned which can be correlated to *Amlapitta*.

Unlike *Brihatrayis*, it is well described with its etiology, symptomatology and treatment in other

Clinical features

Clinical features of *Amlapitta* according to various texts are:

Table 1: Clinical features of *Amlapitta*

Clinical features	M N	B P	G N	K S	H S	V S	Y R
Indigestion	+	+	+	-	-	+	+
Fatigue	+	+	+	+	-	+	+
Nausea	+	+	+		-	+	+
Eructuations	-	-	-	+	-	-	-
Astringent eructuations	+	+	+	-	+	+	+
Sour eructuations	+	+	+	+	-	+	+
Heaviness	+	+	+	+	-	+	+
Burning sensation in heart	+	+	+	-	+	+	+
Burning sensation in throat	+	+	+	+	-	+	+
Burning sensation in chest	-	-	-	+	-	-	-

Ayurvedic literatures like *Lakhutrayis*, *Kashyapa samhita*, *Gadanigraha*, *Bhavaprakasha*, *Yogaratnakara*, *Vangasena Samhita* etc. *Kashyapa Samhita* is the first text available to describe the disease *amlapitta* separately.

Etiology

Since the disease is related very much to food intake and digestion, the etiological factors can be discussed as- based on factors related to food and those not related to food.

Factors related to food- Intake of incompatible foods, food intake before the previously taken food is digested, *Amatva*, accumulation of *Ama*, food made with grain flour, improperly fermented drinks, unboiled milk, heavy and moistening foods, excess intake of too hot, unctuous, dry, sour and liquid foods, intake of molasses, other sugar cane products, horse gram, fried grains, wild growing rice, parched rice, drinking water in between food, eating stale food,^[13] intake of unhygienic food, foods causing burning sensation and food and drinks causing vitiation of *Pitta*.^[14]

Others- Suppression of natural urges, sleeping after repeated food intake, excess bath, bathing by immersion in water like in tub or water bodies.^[15]

Pathogenesis

Resorting to the above etiological factors causes vitiation of *Vatadi doshas* causing diminution of body heat and digestive power and whatever eaten by the person gets acidified in the stomach due to improper digestion. If due to greediness one consumes food in this indigested state, it leads to the manifestation of *Amlapitta* as if the milk poured into undried curd pot becomes inspissated and sour. Due to this, *Rasadhatu* too gets *Amlata* and whatever is further intaken also attains *Amlata* thus producing the disease *Amlapitta*.^[16]

Anorexia	-	-	-	-	-	-	-
Head ache	-	-	-	+	+	-	-
Acidic hiccup	-	-	-	-	+	-	-
Diarrhea	-	-	-	+	-	-	-
Pain in cardiac region	-	-	-	+	-	-	-
Fullness of abdomen	-	-	-	+	-	-	-
Borborygmus	-	-	-	+	-	-	-
Horripilations	-	-	-	+	-	-	-

Classification of Amlapitta

Amlapitta is classified in the following two ways

1. Based on the direction of manifestation - *Urdhwaga amlapitta* and *Adhoga amlapitta*.
2. Based on the involvement of *Doshas* - *Vatika*, *Paittika* and *Kaphaja* in *Kashyapa samhita*; and into three as *Sanilam*, *Sanilakapham* and *Sakapham* in *Lakshurayis* and *Gadanigraha*.

Parinamasoola

The word *Parinamasoola* is used for disease with *Soola* (piercing) type of pain during digestion of food. The word *Parinama* means transformation. Here, transformation of food implies digestion in the *Koshta*. *Soola* implies pain produced as if being pierced by a sharp weapon. Hence *Parinamasoola* refers to the colicky pain produced during the digestion of the ingested food. It is also called as *Parinamaja soola*, *Annadrava soola*, *Pakti soola*, *Mahagada* and *Annavidahaja soola*.^[17]

Etiopathogenesis

Vata vitiation is the prime cause of *parinamasoola*. The *Vata* getting aggravated by its own aggravating factors gets enveloped by *Pitta* and *Kapha* near it, thus becoming powerful enough to cause colic pain during the period of digestion and thus called *Parinama soola*.^[18]

Clinical features

The *Kapha* dislodged from its site in association with *Pitta* along with *Vata* produces colic pain in the abdomen, flanks, umbilical region, urinary bladder, intermammary area, sacral region and all over the body.

This colic subsides after taking meals, on vomiting and on digestion of the intaken food. It exacerbates on intake of cooked *Sali*, *Vrihi* grains etc.^[19]

Classification

Pariamasoola is classified into eight types as *Vatika*, *Paittika*, *Kaphaja*, *Samsrishtaja sannipataja* and *Amaja parinama soola*. Whereas, it is classified into only seven types with the exception of *Amaja parinama soola* in literatures like *Madhava Nidana*, *Yoga Ratnakara*, *Vangasena Samhita* and *Gada Nigraha*.

Annadravasoola

This is a digestive disorder characterised by colic that persists always- when food is ingested, during its digestion, or before its digestion. This colic manifests always irrespective of whether conducive food or not is taken, or food is taken or not, or with any other conditions.^[20]

Other diseases with similar symptoms

There are also certain other diseases which has some of the symptoms similar to those of Acid peptic disease like *Grahani*, *Gulma*, *Chardi* and *Shoola*.

In the *Purvarupa* of *Grahani* certain symptoms like acid regurgitation, increased salivation, loss of appetite, anorexia, vomiting, abdominal fullness, improper digestion are similar to those of Acid Peptic Disease. When the digestive power is weak, the improperly digested food moves upwards and downwards; when it moves downwards it is termed as *Grahani*. It could be assumed that the upward movement of this *Vidagdharaha* is seen in Acid Peptic Disease. Certain symptoms of *Paittika grahani* like *Amla udgara* (acid regurgitation), *Hrit kanta daha* (burning sensation in cardiac region and throat) and *Aruchi* (anorexia) are also seen in Acid Peptic Disease. Symptoms of *Kaphaja grahani* like difficulty in digestion, *Hrillasa*, *Chardi*, *Arochaka*, *Asyopadeha* and *Shteevana* also are seen in Acid Peptic Disease.

Burning sensation in abdomen, cardiac region, chest, and feeling of acidic fumes coming through throat along with acid regurgitation are the features of *paittika gulma* which are similar to those of Acid Peptic Disease.

Symptoms of *Pittaja shoola* which are similar to those of symptoms mentioned in Acid Peptic Disease are burning sensation and pain in umbilical region that increase on *Vidaha kala*. Similar symptoms in *Kaphaja shoola* are *Hrillasa*, *Aruchi*, *Praseka*, *Shoola* in *Amasaya* that increase immediately after the ingestion of food. Similar symptoms in *Kaphapittaja shoola* are *shoola* in the region between *Hrit* and *Nabhi*. Similar symptoms seen in *Amaja shoola* are *Atopa*, *Hrillasa*, *Chardi*, *Gaurava*, *Anaha*, *Kapha praseka*.

H pylori is attributed to be a proven cause for the causation of Gastritis, Gastric ulcer and Duodenal

ulcer and this could be correlated with *Amasayaja krimi*. Most of the symptoms of *Amashayaja krimi* like *Hrillasa*, *Asyasamsravana*, *Arochaka*, *Avipaka*, *Anaha*, *Chardi* and *Karshya* are seen in *Amashayaja krimi*.

Analysis of symptoms of acid peptic disease based on Doshas

The cardinal symptoms of Gastro Esophageal Reflux Disease are heart burns and acidic regurgitation. Associated symptoms include acidic taste in mouth, water brash, chest pain, sore throat, nausea, dry cough, gum inflammations and mouth ulcers.

Symptoms of Gastritis are anorexia, nausea, vomiting, hemetemesis, malena, abdominal pain, bloating, burping, indigestion, hiccups, weight loss, diarrhea, early satiety and flatulence.

Symptoms of Gastric ulcer are abdominal pain, anorexia, indigestion, nausea, vomiting, bloating, early satiety, heart burns, acid reflux, burping, hemetemesis, malena, weight loss, fatty food intolerance and pain on food intake (within an hour of food intake).

Symptoms of Duodenal ulcer are abdominal pain, anorexia, indigestion, nausea, vomiting, bloating, heart burns, acid reflux, burping, hemetemesis, malena, weight gain fatty food intolerance and pain after digestion (after 2-3 hours of food intake).

The symptoms of the diseases in Acid Peptic Disease are more or less overlapping. Presenting symptoms are analysed in terms of involvement of dosha in the following way.

Table 2: Analysis of symptoms of Acid Peptic Disease

Symptoms	Similar symptom in Ayurveda	Predominant dosha
Heartburns	<i>Hrit daha</i>	<i>Pitta vridhi</i>
Acid regurgitation	<i>Amlodgara</i>	<i>Pitta vridhi</i>
Acidic taste in mouth	<i>Amla rasata</i>	<i>Pitta vridhi</i>
Waterbrash	<i>Praseka</i>	<i>Kapha vridhi</i>
Chest pain	<i>Hrit shoola</i>	<i>Vata vridhi</i>
Sore throat	<i>Kanda paka</i>	<i>Pitta vridhi</i>
Nausea	<i>Hrillasa</i>	<i>Kapha vridhi</i>
Dry cough	<i>Sushka kasa</i>	<i>Vata vridhi</i>
Gum inflammations	<i>Dantamoola paka</i>	<i>Pitta vridhi</i>
Mouth ulcers	<i>Asya paka</i>	<i>Pitta vridhi</i>
Anorexia	<i>Arochaka</i>	<i>Kapha vridhi</i>
Vomiting	<i>Chardi</i>	<i>Vata vridhi</i>
Haemetemesis	<i>Rakta chardi</i>	<i>Pitta vridhi</i>
Malena	<i>Raktatisara</i>	<i>Pitta vridhi</i>
Abdominal pain	<i>Shoola</i>	<i>Vata vridhi</i>
Bloating	<i>Adhmana</i>	<i>Vata vridhi</i>
Burping	<i>Udgara</i>	<i>Vata vridhi</i>
Indigestion	<i>Avipaka</i>	<i>Kapha vridhi</i>
Hiccups	<i>Hidhma</i>	<i>Vata vridhi</i>
Weight loss	<i>Karshya</i>	<i>Vata vridhi</i>
Diarrhoea	<i>Atisara</i>	<i>Vata vridhi</i>
Early satiety	<i>Tripti akshamatva</i>	<i>Vata vridhi</i>
Flatulence	<i>Adhovata</i>	<i>Vata vridhi</i>
Haemetemesis	<i>Rakta chardi</i>	<i>Pitta vridhi</i>
Malena	<i>Raktatisara</i>	<i>Pitta vridhi</i>
Fatty food intolerance	<i>Avipaka</i>	<i>Kapha vridhi</i>
Pain on food intake	<i>Shoola</i>	<i>Kapha vridhi</i>
Pain after digestion	<i>Shoola</i>	<i>Vata vridhi</i>

Analysing these symptoms, it is to be understood that the feature of vitiation of all the three *doshas* can be seen in Acid Peptic Disease

Possible *Srotases* vitiated in acid peptic disease

Since the disease shows symptoms relating to *Koshta* and the symptoms described above points out that the possible *Srotases* which may get vitiated in this disease are *Annavahasrotas*, *Rasavahasrotas* and *Pureeshavahasrotas*.

The symptoms of vitiated *Annavaha srotas* seen in Acid Peptic Disease are disinclination for food, anorexia, indigestion and vomiting. *Rasavaha Srotodushti lakshanas* like dislike for food, anorexia, nausea, anemia, fatigue and emaciation are seen in Acid peptic Disease. Altered bowel habits like constipation and diarrhoea are seen in Acid peptic Disease which may be correlated to *purishavahasrotodushti*.

DISCUSSION AND RESULTS

As per Ayurvedic classics, it is not possible to name all the diseases and one need not be ashamed of this. Mere naming of diseases will not serve the purpose of treatment and naming is adopted only for the ease of distinguishing diseases. Instead, one should try to analyse the diseases based on available information like *Vikara prakrti* (cause of diseases), *Vikara adhishtana* (site of manifestation of the disease), *Vikara hetu visesha* (diversity of causes), altogether named as the *Trividhabodhya sangraha*. Here, *Vikara prakriti* is the *Vatadi doshas*, *Adhishtana* is the gastro intestinal tract and *Hetu visesha* includes the causes for vitiation of *Doshas*.

Though *Tridoshas* are all pervading in the body, they have their predominance with respect to function as well as structure in different parts of the body. Since Acid Peptic Disease is related to the digestive system, the *Doshas* predominant in this part of the body can have its influence in manifestation of the disease. Digestion of food is the main function of stomach. Even though all the three *Doshas* are involved in the process of digestion, this function is mainly carried out by *pitta* among the three *Doshas*, especially *Pachaka pitta*. *Pachaka pitta* is devoid of *Dravatva* and hence is *Agneya* thereby capable of digesting food. *Susruthacharya* says, *Jataragni* is the *Pachaka pitta* itself, *Agni* is dependent on *Pitta* and any vitiation caused to it is due to vitiation of *Pitta* and not directly. And this *Agni* is protected by *Prana vayu*, *Samana vayu* and *Apanavayu*. The manifested symptoms with respect to *Vata* may be due to the derangement of *Prana vayu*, *Samana vayu* and *Apana vayu*; and the symptoms with respect to *Kapha* may be due to derangement of *Kledaka kapha*.

Kledaka kapha moistens the food thereby helps in disintegrating it for digestion. The *Kapha kopa nidanas* may also cause *Dushti* to *Kledaka kapha*

thereby making the food more *Kledabahula*, which causes *Avipaka* and delayed digestion. This also accounts for *Suktapaka*, *Amlata* and increased *Vidahitwa*.

CONCLUSION

Acid Peptic Disease as such is not mentioned in Ayurvedic classics. In Ayurveda all the unnamed diseases should be understood in terms of characteristics of the disease, site of its manifestation and causes. *Dosha* vitiation is considered as the sole causative factor of diseases in Ayurveda. So observing the *Doshas* involved in the disease helps in understanding Acid Peptic Disease in Ayurvedic perspective and treat it effectively.

The above literary review shows that Acid Peptic Disease has more similarity to *Amlapitta* and the most prevalent among them viz., Gastro Esophageal Reflux Disease, Gastritis, Gastric ulcer and Duodenal ulcer can be understood in terms *Amlapitta*. Equivalent symptoms of the selected Acid Peptic Disease in terms of *Ayurveda* were taken to understand the *Dosha* involvement. It could be seen that all the three *Doshas* are vitiated in Acid Peptic Disease, and in varying degrees. Considering *Vatadushti*; *Pranavayu*, *Samanavayu* and *Apanavayu* seems to be vitiated. Considering *Pitta* signs of *Pachaka pitta* vitiation is evident and considering *Kapha*; *Kledaka kapha* vitiation is evident. So *Dosha* vitiation in the disease with respect to individual *Dosha* variations and associated conditions should be observed well for framing an effective treatment protocol.

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