

CRITICAL ANALYSIS OF AMLAPITTA (HYPERACIDITY)

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ABSTRACT

Amlapitta is considered to be a *annavaha sroto dusti vikara* due to impairment of jatharagni by increased drava and amla guna of *Vidagdha pachaka pitta* along with *kledaka kapha* and *samana vayu*. *Aharaja* (Dietary factors), *Viharaja* (Lifestyle), *Manasika* (psychological factors), Nonsteroidal anti-inflammatory drugs, smoking, alcohol etc are some of the main etiological factors responsible for the disease. It is clinically characterized by *Avipaka*(indigestion), *Tikta-Amlodgara* (erectations with bitter and sour taste), *Utklesha* (nausea), *Hritkanta daha* (burning sensation in the chest and throat). While describing the prognosis of *amlapitta*, *madhavakara* mentions that it can be cured easily if treated early with proper *pathya-apathya*. *Amlapitta* is an *amashayotta vyadhi* and as mentioned in Ayurvedic texts *vamana* is indicated in disease arising from *amashaya*. In *amlapitta pitta* and *kapha* are responsible for the manifestation of the disease and *virechana* is the ideal procedure to eliminate *pitta*.

KEYWORDS: *Amlapitta*, hyperacidity, gastritis.

INTRODUCTION

Agnimandhya is a pathological condition of delayed and improper digestion and initially leads to a clinical feature called *Ajeerna* (Indigestion). If *ajeerna* persists for a prolonged period, leads to *Amlapitta* (hyperacidity), a state of non ulcer dyspepsia where in the food becomes *vidagdha*, acidic and produces epigastric comfort, retrosternal burning, bitter and acid erectations along with indigestion. Descriptions available in *charaka samhita* explains *amlapitta* as one of the diseases which is the outcome of *viruddha ahara* (incompatible, erroneous diet).^[1] *Ama visha* (Undigested food) produced due to *ajirna* (indigestion) enters in *amashaya* mixes with *pitta dosha* produces *Amlapitta vyadhi*.^[2] There is no clear description of *Amlapitta* as a separate disease entity in *Sushruta Samhita* and *Ashtanga sangraha*. In *Madhanidana* it is mentioned as a separate chapter where aetiopathogenesis, signs and symptoms, two subtypes, *sadhyaasadyata* have been described. In *Kashyapa Samhita* there is separate mention of *amlapitta vyadhi* he also mentions the role of *manasika bhavas* (psychological factors) in the causation of the disease as well as the classification based on doshas.^[3]

It can be correlated to hyperacidity, Non ulcer dyspepsia, Gastroesophageal reflux disease in contemporary science which can further produce complications like peptic

ulcer diseases. Peptic ulcer disease (PUD) results from imbalances in mucosal damage and defenses. Hyperacidity in PUD can be caused by infection, parietal cell hyperplasia, excessive secretory response or increased gastrin production (eg., secondary to hypercalcemia or produced by a tumor). NSAIDs and steroids block the normal prostaglandin cytoprotective effects and cigarette smoking impairs mucosal blood flow and healing.^[4]

Nidana parivarjana is essential for the management of the disease especially spicy food, irritant food, fried food, heavy diet, stress and sedentary life style. *Madhura, tikta, kashaya* predominant *rasas, laghu, ruksha guna, kapha-pittashamaka, pachana* property will easily counteract *amlapitta*.

*NIDANA*s(Etiological factors): *Viruddhahara*, food and its combinations which interrupt the tissue metabolism, which inhibits the formation of tissues and which has opposite property to the tissue are termed as *Virrudha, dushita ahara, amla, vidahi* and *abhisyandi ahara*, dietetic errors like *abhojana* and *atibhojana* and *adhyasana*, emotional disturbances like *chinta, krodha, bhaya shoka* etc.^[5] Due to excess intake of *pitta prakopa ahara, vihara* leads to *amlatha, dravata, vridhi* of *pitta*

and *shukta* of *pitta* resulting in *Amlapitta vyadhi* and *manasikabhavas* do play an important role in it.

According to Kashyapa *hetusevana* causes *pitta prakopa* especially *pitta*. This causes *mandagni* and the ingested food becomes *vidagdha* and attains *shuktva*. This *vidagdha* and *shuktbhava* of *ahara* creates *amlata* in *amashaya* producing *amlapitta vyadhi*.

Aharaja (Dietary factors), *Viharaja* (Lifestyle), *Manasika* (Psychological factors), *Agantuja* hetus, alcohol, smoking, faulty eating habits, stress, NSAIDS (Non steroidal anti-inflammatory drugs) are the major etiological factors for the manifestation of the disease.

SAMPRAPTI (Etiopathogenesis): *Prakrita pitta* (Physiological *pitta*) is *katu, tikta rasa* in taste and *laghu guna* when vitiated it will be converted to *amla rasa*. In *Madhava nidana* it is mentioned that due to *pitta prakopa nidana*, *pitta* gets vitiated and *amlata* (sourness) of *pitta* gets increased.^[6] *Nidana sevana* causes *mandagni* (hyposecretion of acid, bile, enzymes and hormones) which leads to vitiation of *pitta* and converts into *vidagdha* or *sama pitta*. This *sama pitta* burns the food in the stomach and converts it into improperly digested, excessively charred acidic chyme. The aggravated *pitta* tries to find out its way either through mouth or rectum i.e *Urdhwa* and *Adhobhaga* and exhibits the symptoms of *amlapitta*. Sometimes this *vidagdha pitta* (acid plus bile) is thrown out of the body in the form of regurgitative reflexes and produces symptoms like nausea, bitter or sour eructations, abdominal pain/discomfort, burning sensation and severe indigestion.

RUPA (Symptoms): *Avipaka* (Indigestion), *Klama* (exhaustion without exertion) *Utklesha* (Nausea), *Tikta-Amla Udgara* (acid bitter eructations), *Gaurava* (abdominal discomfort), *Hrit-Kanth daha* (burning sensation in the chest and throat). According to Kashyapa *Antrakujana* (gurgling noise), *Vidbheda* (diarrhea), *Udara adhmaana* (tympanitis) and *hrid shula* (Precordial pain).^[7]

Vishesha Lakshanas of Amlapitta

1. Urdhvaga Amlapitta

Vamana Pradhana Urdhvaga Amlapitta: In this type *vamana* is the presenting symptom. The vomitus is of different colours, *Harita* (green), *Peeta* (yellow), *Nila* (bluish), *Krishna* (black), *Arakta* (slightly red), *rakta* (bright red), *tikta amla udgara* (bitter and sour eructations), *Karacharana daha* (burning sensation in the palms and soles), *ushna* (feeling intense heat), *Mahati aruchi* (severe loss of appetite), *hwara* (fever), *kandu* (itching) and *mandala pidaka* (circular rashes)

2. Adhoga Amlapitta

This variety of *amlapitta* is characterized by *trishna* (thirst), *daha* (burning sensation), *murcha* (fainting), *bhrama* (giddiness), *moha* (delusion),

analsada (loss of appetite) *vividhaprakara mala* (various types of stools-greenish, yellowish, blackish, red colored), *sweda* (perspiration), *murcha* (fainting), *peetatwak* (yellowish skin).^[8]

3. Vataja Amlapitta

Kampa (tremors), *Pralapa* (delirium), *murcha* (fainting), *chimichimi gatra* (feeling of pins and needles), *shoola* (pain in epigastrium), *tamodarshana* (darkness before the eyes), *bhrama* (giddiness), *moha* (delusion) are the symptoms due to *vata* predominance.

4. Sleshmika Amlapitta

This type is characterized by *kapha nishteevana* (expectoration of thick sputum), *angasada* (feeling of heaviness), *aruchi* (anorexia), *chardi* (vomiting), *jihwalepa* (coating of the tongue), *balasada* (loss of strength), *kandu* (itching).

5. Vatakaphaja Amlapitta

Symptoms of both *vataja* and *kapha amlapitta* are present in this type.^[9]

6. Paittika Amlapitta

It is mentioned in Kashyapa Samhita, symptoms are *bhrama*, *vidaha* and *madhura sheeta padartha upashaya*

Sadhya- Asadhyada (Prognosis): According to *Madhavakara* if the disease is of recent origin it can be cured with proper efforts. If the disease becomes chronic it can be cured with difficulty. If *upadravas* are present then it is *asadhya*.

Upadravas: Kashyapa has mentioned some *upadravas* (complications) of *Amlapitta*. The *upadravas* are; *Jwara*, *Atisara*, *Pandu*, *shotha*, *shoola*, *aruchi*, *bhrama*, *grahani roga*. *Amlapitta* is *asadhya* (incurable) when these *upadravas* are present.

Amlapitta Vis A Vis Acid Reflux Syndrome

The gastrointestinal tract is responsible for breaking down of food and supplying the body with water, nutrients and electrolytes. For proper digestion an appropriate pH is essential which is usually acidic in stomach serves as gastric emptying time. During this time nutritive substance undergo changes by its secretory activity which provides enzymes. A delayed gastric emptying leads to fermentation of food producing organic acids as seen in conditions like gastroparesis whereas rapid gastric emptying acidifies the medium of gastrointestinal tract. These states are seen in *amlapitta* related diseases, the abnormal acid medium erode the mucous lining of the concerned segment of the gastrointestinal tract leading to painful conditions of upper abdomen such as *Parinama shoola* (duodenal ulcer), *Annadrava shoola* (Gastric ulcer).

Amlapitta cannot be correlated with one particular disease. Considering the causative factors and the symptomatology *amlapitta* has close resemblance to acid

reflux syndrome which comprises of gastritis, hyperacidity states, dyspepsia GERD (Gastroesophageal reflux disease). Reflux of gastric juices is caused decreased LES (Lower esophageal sphincter) tone and /or increased abdominal pressure and can be exaggerated by alcohol, tobacco use, obesity, CNS depressants, pregnancy, delayed gastric emptying or increased gastric volume. The presenting symptoms are usually heart burn, sour erectations, abdominal distension, nausea, vomiting etc. The signs and symptoms of amlapitta mentioned in Ayurveda classics has close resemblance with gastritis and GERD (Gastroesophageal reflux disease).^[10]

Table Showing clinical correlation between amlapitta and hyperacidity state.

No.	Amlapitta	Hyperacidity state
1.	Avipaka	Indigestion
2.	Amlodgara	Sour belching
3.	Utklesha	Acid refluxes of the food taken in
4.	Hritdaha	Burning pain and discomfort in the chest, upper abdomen
5.	Udara adhmana	Abdominal distension

Gastritis: Various forms of gastritis have been depicted in the table.

Type A	Type B	Reflux	Erosive
Autoimmune- antibodies to parietal cell	H.Pylori associated	After cholecystectomy, gastric surgery	It occurs due NSAID
Fundus and body are affected	Antrum is affected	Antrum is affected	It affects entire stomach
Atrophy of parietal cell mass. Hence hypochlorhydria and decreased intrinsic factor	Predisposes to peptic ulcer disease	Usually does not give rise to peptic ulcer disease	It occurs due to defective gastric mucosal barrier
Hyperchlorhydria stimulates antral gastrin. Predisposes to development of gastric cancer	Can give rise to intestinal metaplasia, dysplasia and predisposes to development of gastric cancer	Treated by prokinetic agents or bile chelating agents	Treated by H2 blockers or proton pump inhibitors

Nonulcer Dyspepsia

Dyspepsia is characterized by symptoms related to upper abdominal viscera. Symptoms may include heart burn but heart burn alone suggests GERD (Gastroesophageal reflux diseases) and excludes the diagnosis of dyspepsia. Nonulcerative dyspepsia is considered when no anatomic or biochemical abnormality is discovered that explains the patients symptoms.^[12]

Urdhvaga and Adhoga amlapitta described in Madhavanidana can be clinically understood on the basis of acid state. In *urdhva amlapitta* gastric emptying is delayed. The food stasis in such conditions may also be due to gastric outlet obstruction, gastroparesis, hypotonia, post vagotomy states. The acidic food rich in carbohydrates, proteins and fats will ferment to produce organic acids like fatty acids, lactic acid, acetic acid, butyric acid etc, lowering the Ph leads to characteristic features of disease. Reflux of acidic contents of stomach leads to clinical features like heart burn, sour erectations,

Aetiologies of gastritis

Neurological causes: Stimulation of vagus increases secretion of acids. This is brought about by anxiety, hurry, worry and curry.

NSAIDS: Alters mucosal defense

Food habits: Spicy food, diet poor in vitamins, smoking and alcohol

Bacteriological causes: *Helicobacter pylori*, a spirochaetal bacteria. It increases pH levels by splitting urea and releasing ammonia. Rise in Ph results in proliferation of bacteria.

Endocrinal causes: Zollinger-Ellison's syndrome is a non beta cell tumor of the pancreas with hypergastrinaemia. Hyperparathyroidism causes increased levels of calcium which stimulates the parietal cell mass there by resulting in hyperacidity.^[11]

nausea and vomiting. Such pathological states may be found in primary hyperchlorhydria, vagotonic states, Zollinger Ellison syndromes (gastrinomas). The alkaline medium is necessary for the final digestion of carbohydrates, proteins and fats. It is being converted into acidic by acid reflux giving rise to osmotic diarrheas of various colors, constituents, odor and quantity

Samshamana Chikitsa: It includes *pathya, ahara and aushadha*.

Pathya-Apathya

In the management of any disease food and dietetic code (*Pathya-Apathya*) are important aspects. In *amlapitta* following proper *pathya-apatya* helps to produce soothing effect on the inner layer of the stomach, reverses inflammatory changes and controls the digestive secretions.

	Pathya	Apathya
Ahara (Dietary factors)	<i>Yava, Goduma, Puranshali, Mudgayusha, Dadima, Amlaki, Goghrita, Godugdha, Madhu, Sarkara, Narikelodaka, Haritaki, Pippali</i>	<i>Vidahi, Amla, Lavana, Katu, Guru, Madya, Vishamashana, Adhyashana, bakery items which are excess in salt, oils and maida</i>
Vihara (Life style)	<i>Sheetopachara</i>	<i>Atapasevana, Vegasandharana</i>
Manasika (Psychological factors)		<i>Chinta, Shoka, Krodha, bhaya</i>

Drug Treatment: *Shamana* drugs should be of *madhura, tikta rasa, snigdha guna, and sheeta veerya*. Some famous formulations for the management of *amlapitta* are *Avipatikara choorna, Triphala choorna, Sutasekhara rasa, Satavari ghrita, Amlaki rasayana* etc.

Samsodhana Chikitsa: It includes *Vamana* to pacify the *Kapha dosha*. Mainly *pitta kapha doshas* are involved in the manifestation of this disease and *virechana* is the best procedure to eliminate *pitta dosha*.

CONCLUSION

Amlapitta is one of the most common symptom (disease) which occurs as a consequence of faulty diet and *ama visha*. It is a *pitta pradhana vyadhi* of *annavaha srotas* clinically characterized by *avipaka, amlodgara, utklesha, hritkanta daha* indicating the *vikriti* of *pachakapitta, kledaka kapha* and *samana vayu*. The patho-physiology of *amlapitta* states that is a disease due to functional disturbance rather than organic lesion. Considering the similarities in etiological factors and symptomatologies *amlapitta* can be correlated with acid reflux syndrome. It can be cured easily if treated with proper *pathya apanya, samshamana* and *samsodhana chikitsa*.

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