Chapter - 3

AMLAPITTA

CONCEPTUAL STUDY
The life style of today is absolutely altered or modified, within the last two decades, when compared with the past. Likewise are the habits of food intake as well. Most of the people are not able to compromise much in their food habits. They have awful food habits like irregular intake, eating of smoked foods, excessive use of spices, chillies and masalas, intake on inappropriate time, using processed foods, having food with preservatives etc. Similar is the psychological imbalances observed in the present day community and the relation with food. The non proper living style and faulty dietary habits upset the digestion initially. It is reversible to some extend. If we are repeating the same contributory factors in a regular as well as constant manner, it may lead to conditions like dyspepsia, peptic ulcer and other major disorders of the GI tract, in the due course.

Due to these alterations in the food and life style, more than a few people are suffering from a number of disorders of digestion and the resultant clinical conditions. The most common abdominal condition experiencing in the primary health care, is dyspepsia. Gastric dyspeptic disorders are mainly caused by the unfriendly dietetic pattern, mental stress and strain, mishandling of certain
drugs etc. which are directly or indirectly affecting our digestion or its mechanism. Ayurveda has given utmost importance to optimal dietary regimen and its variation as per the season, agni, prakrithi, type of the intaken food and the disease condition. The unaccustomed variations in the same, may lead to the diseases of the koshta or the GI tract. Depending on the three doshas, which gets disturbed with the pathology, the condition or the disease varies and is named accordingly, in the classics.

Charaka and Kashyapa have clearly discussed that the Grahani dosha and Amlapitta occurs in the person, who could not verify the temptation of food in their life. The nidana or the etiological components create agnimandya or depleted digestive mechanism and thus ajirna is developed and leads to the formation of amavisha or substances which are not supportive in nature or even harmful to the body. This amavisha mixed with the doshas, mainly the Pitta dosha and gets accumulated in the amashaya, then gradually resulting in the diseases like Amlapitta. The alteration in the status of the doshas lead to various other clinical presentations.

In Bruhatrayi, diseases such as Amlapitta have not been explained as such, by the name. In many diseases, the symptoms resembling that of the disease can be traced out. It is also dealt with among the indications mentioned in the context of a few medicines. Charaka has specified more than a few references about Amlapitta, in a scattered manner. Acharya Kashyapa was the first to mention a separate chapter to deal with the Amlapitta, among the ancient Indian legends. Acharya Madhava and the Bhavaprakasha have specified a detailed description on the symptoms and also the management of the Amlapitta.
The management is explained under mainly two categories. Hetuvipareetha and the vyadhi vipareetha are the core two types of the chikitsa. The vyadhivipareetha chikita is being performed mainly at the OPD level in our regular practise. The drugs are being selected and prescribed as per the clinical condition of the patient, for the recovery. On the other side, Hethuvipareetha chikitsa, which is the ultimate and wholesome management, can be successfully performed, at the inpatient level. All the suitable sodhana procedures can be incorporated in an appropriate and required manner, on a conditional basis. Each of these branches has their own role to play, in an ultimate management protocol. Satvapachaya chikitsa is the third component which is to be explained, under the psychological aspect and is one of the key approaches in many diseases in the current social scenario, including the GI disorders.

Among the sodhanas, vamana is the most important as well as effective tool, as far as the Amlapitta is concerned. We are using several drugs with success in the management of Amlapitta, for the purpose of samana. Along with the same, a few dietary corrections are also advised and are also having a very significant role, in the current scenario. Another area to be discussed here, is the emotional status of the affected individuals.

Gastritis and Functional dyspepsia have been compared and discussed along with Amlapitta, by several experts of Ayurveda. Modern medicine is not having the exact as well as ultimate answer for gastric diseases, including the Functional Dyspepsia. Ayurveda have a lot to offer in this regard. Ayurvedic physicians are providing cure for the patients of these category of chronic diseases, in a quite efficient manner, where a few more research works are expected in the near future.
HISTORICAL REVIEW

For the complete acquaintance of any subject, it is necessary to trace out its historical background, which gives a concrete picture in the development of the science from time to time. This seems more applicable to the most ancient health care system of the world, Ayurveda. The development this system has achieved in the ancient period itself, makes the study of its history interesting and informative as well. Here the references we are receiving about the disease Amlapitta, has been dealt with detail.

Vedic Period:

The review of Vedic literature points to no known suggestive references, regarding the description of Amlapitta. But among the puranas, in the Agnipurana, the author is mentioning about Gastrointestinal conditions like atisara, aruchi, grahani, sula etc.13

SAMHITA KALA

The real references in Ayurveda about this clinical condition seems available, from the period of samhithas itself.

Charaka Samhitha

Eventhough Acharya Charaka has not mentioned Amlapitta as a separate entity in the samhitha; the treatise is contributing with many scattered references of Amlapitta by the name itself, which are explained below.

1) Among the indications of eight types of ksheera, Amlapitta is mentioned, for the exercise of the particular ksheera.14

2) While mentioning the ultimate dravyas, Kulattha is considered as chief etiological factor or the contributor for Amlapitta.15
3) The excessive use of lavana rasa is said as the causative factor for conditions including Amlapitta, while describing the function of various rasas. This is due to the resultant dushti happening to the Pitta as well as the Rakta.16

4) A list of diseases ensuing from the recurrent intake of virudhahara is mentioned by the Acharya, while explaining the consequences of virudha, which includes also Amlapitta.17

5) Rajamasha is mentioned to have the property of relieving the condition, Amlapitta and is also enhancing the taste.18

6) Mahatikta Ghrita has been indicated for the disease Amlapitta, with its administration.19

7) While describing Grahani roga, pathogenesis of Amlapitta has been clearly mentioned, while explaining the role of agnidushti and its role in the manifestation of diseases, by affecting the three doshas, mainly the Pitta.20 A general samprapthi of a GI disorder can be traced out here.

8) The indications of Kamsaharitaki, mentioned along with the management of sopha, also includes Amlapitta.21

9) The list of Paittika nanatmaja disease includes dhumaka, amlaka and vidaha which are the symptoms seen in Amlapitta, eventhough the term as such, canot be traced out here.22

The references are sufficient to give a clear cut indication regarding the samprapti and management of Amlapitta, in the period of Charaka, eventhough the disease as such is not explained in the samhitha, as a separate disease entity.

Sushruta Samhita

Though Charaka has mentioned the word Amlapitta, but it is not traced
out in Sushruta Samhita. Susrutha is explaining the sthana of Pitta as madhya of amasaya and pakwasaya and Dalhanacharya is explaining the yakrit, pleeha, hridaya, drishti and twak as the peculiar sthanas of Pitta. Katu rasa is the natural rasa of Pitta says the Acharya and it becomes amla when vidagdha, which is observed here in the pathology.

Sushruta while describing the diseases resulting from excessive use of lavana has mentioned a condition “Amlika” which resembles one of the symptoms of Amlapitta. Among the five components of the Vatha, Susrutha mentions that Prana, Samana and Apana controls and maintains the agni directly. While explaining the treatment of dosha according to the localisation, Acharya is of the opinion that, if Pitha is localizing in the seat of Kapha after dushti, the management to be done is for the Kapha, initially which is an important management protocol followed in the case of Amlapitta.

Ashtanga Sangraha and Ashtanga Hridaya

Vagbhata has also not described the Amlapitta as a separate disease entity. In many diseases like hridroga, grahani, chardi etc. particularly in the Paittika variant, many a symptoms observed in Amlapitta are explained. In Paittika chardi, symptoms such as dhoomaka, amlaka and chardi with Amlapitta is being explained. In Paittika grahani, amlaka is described among the poorvaroopa. In the Paittika grahani amlodgara, hrit-kanta daha, aruchi and chardi are also mentioned. In vidagda ajeerna also, the symptoms similar to Amlapitta is explained, but as one among the classification of the ajeernas. The condition of soola in the amashaya is explained by the Acharya, after mentioning the hridrogas.
Kashyapa Samhita

Kashyapa is the former among the ancient scholars, who mentioned Amlapitta, as a separate disease entity. The acharya is explaining detailed causative factors including ahara, vihara, vegadharana, divaswapna, virudha etc. for the materialization of the Amlapitta. Not only the vivid description of the Amlapitta with its treatment, has been mentioned in it, but also the suggestion to change the place for the peace of mind in case where the medicine does not work out, has also been narrated. These points to the importance of a psychological balance in alleviating the symptoms of Amlapitta and also in those affected. Samana vatha along with Udana is responsible for the normal digestion, opines Acharya Kasyapa. Vitbedha is also considered here among the symptoms of Amlapitta.

Kasyapa is explaining the variants of Amlapitta as per the doshas, with the peculiarity in the symptoms, so that it can be approached in the clinics, in an enhanced manner. This is also a hint for considering the associative dosha in the management of Amlapitta. He is also explaining the relevance of vamana in its management, with its peculiarity and also the possible mode of action. The dietary restriction has also been advised with its magnitude, in the treatise. The utmost importance given to this disease by the Acharya has been esteemed.

Harita Samhita

A separate chapter for the disease of Amlapitta is available in this treatise. Acharya explains the etiological factors as the guda sevana, excessive intake of substances with amla rasa and also intake of virudha aahara as the causative factors. The important symptoms mentioned are the burning sensation
in kanta pradesha as well as hridaya and also sirasoola. Udgara or hikka, with amla in rasa, is also being experienced by the patient.

The management is also advised where Vamana is mentioned for the urdhwaga Amlapitta and virechana for adhogata Amlapitta, as the protocol. A kwatha with patola, paatala, dhanyaka, vasa, nimba and nagara is also mentioned. Dhanyaka and naagara is advised as kalka form at night, for attaining pachana.

**Madhava Nidana**

Madhava nidana is the first text available which gives importance to Amlapitta and describes its aetiopathogenesis and symptoms in detail along with two clinical sub types viz. 1) Urdhvaga Amlapitta and 2) Adhoga Amlapitta. This is one of the concepts we are using very effectively, in the clinical scenario of management. The involvement of the other doshas, Vatha and Kapha in the etiopathogenesis has also been discussed. The prognosis has also been mentioned as well.

**Chakradatta**

Chakrapani in his commentary on the management of grahani has given the symptomatology of Amlapitta without mentioning the references. He discussed its management in the manuscript Chakradatta, which is one of the latest available books on chikitsa in Ayurveda. A detailed management protocol has been explained with equal importance to sodhana as well as samana chikitsa. Sodhana as per the condition followed by the samana, is the advice. Several samana drugs like kwatha, choorna, gritha, rasa preparations etc. have been explained. Laja saktu has been mentioned along with the dietary regimen which seems clinically very effective. The importance of tikta rasa in the diet, among all the rasas has been projected.
Sharngdhara Samhita

In the chapter dealing with the enumeration of diseases, Acharya has explained three types of Amlapitta, Vathika, Kaphaja and Vatha kaphaja. Here Pitta dosha has been kept as a common and the associative doshas, Vatha and Kapha are given significance, in the classification. This also points out the significance of keeping the associative doshas in mind, while framing the management. Amla asyata is also mentioned as one of the condition among the nanatmaja roga of Pitta. Sharangadhara has mentioned recipes for the condition of the Amlapitta like laja mandha, indicating the importance of dietary modification.

Yogaratnakara

Regarding Amlapitta, the author has followed the Madhava Nidana as a whole, in the aspect of nidana and lakshana. The oordwaga, adhoga types and also the doshika fractions have also been discussed along with the detailed management. Acharya commences the management by performing vamana with the drugs patola, arishta, madanaphala and saindhava, mixed with honey.

Virechana is to be performed next with the trivrit choorna mixed with the kwatha of triphala. If one does not get relief as expected with the sodhana procedures, raktamoksha is also advised, followed by the dietary restrictions for Amlapitta. If the burning still persists, one have to advise samana drugs accordingly. Vamana followed by virechana is to be done, in prabootha dosha.

Anuvasana is to be done if necessary after snehana, following the sodhana therapies. Nirooha is also to be done if the condition is chronic. The author is also quoting the protocol mentioned by Acharya Vrinda, that Kapha Pittahara drugs are the ideal choice for Amlapitta. This statement is having extreme
significance as many of the drugs we use in an effective manner in Amlapitta, is of Pittakapha samana in nature.

Sarpi with guda, ksheera and kana and also Kamsahareethaki are advised, if Vathakopa associated with vibanda is present, in a person with Amlapitta. Several yogas are also mentioned for the management. Kwathas like guduchyadi kwatha, lehyas like nalikera khanda, grithas like satavari gritha, rasa preparations like sootasekhara rasa, along with a selected diet also explained.

**Gada nigraha**

Acharya Shodala is here also unfolding the condition Amlapitta, with due consideration. The nidana, symptoms and the varieties resemble that of the Madhava nidana. Sleshma Pitta lakshana has also been narrated. The treatment pattern resembles that of Kashyapa to some extend. Several kwatha yogas are also mentioned. A patient with severe burning sensation will be beneficiary on performing the sodhana therapy only, advises the Acharya. Vamana is ideal for both the chronic as well as the acute cases.

**Vangasena samhitha**

In this script also, Amlapitta is dealt with sincerely, as a separate chapter. The nidana portion resembles that of Madhava nidana and the treatment part that of Chakradatta, to a great extend. Acharya explains that the assessment of the dosha in Amlapitta may create moha or confusion in the physician. He also advises to perform a lepa on kanta with Kaphasamana drugs in Kaphaja symptoms like aruchi, asya vairasya etc. Kabala with the Pitta samana drugs are also advised in the resultant arochaka.
Raktamoksha is also advised in a patient not responding to sodhana, followed by application of seeta lepa. A kwatha with yava, dhatri and trisugandha along with honey is mentioned for chardi, with Pitta of amla in rasa. Paiittika grahni chikitsa is also advised for adhogata Amlapitta along with pachana and deepana drugs, as per the condition. In a case of Amlapitta whether chira or achira, vamana is the ideal option, says the Acharya. Vangasena is advising tiktaka gritha, shadpala gritha, panchatiktaka gritha and guggultiktaka gritha for Amlapitta. Besides narikela khanda and also a combination, brihat nalikera khanda is also explained. Avipatti karachoorina is also explained in the same context.

**Vrinda Madhava (Sidhayoga)**

Vrinda Madhava in his Kusumavali vyakhya mentions Amlapitta as a separate condition and also explains its management. He has mentioned vamana, virechana, anuvasana and asthapana as the main protocol for the condition. The avasthika chikitsa has also been discussed. The treatment seems analogous with that of Kasyapa. Administration of several kwatha yogas and the use of yoosha are also advised. Kusmandaka khanda is mentioned in the condition of associated raktasruthi. Grithas like vasa gritha, tiktaka gritha are also mentioned. Combinations like pippalikhanda, khandanalikera are also mentioned.

**Veera Sinhavaloka**

This treatise has considered Amlapitta as a separate disease along with its varieties and the management. Vamana is the initial treatment, followed by virechana and samana therapy. A few yogas like guda kooshmanadaka has also been narrated.

**Basavarajiyam**

This book has included Amlapitta among the twenty four nanatmaja
vyadhis of Pitta. Among the other symptoms amlodgara, trishna, aruchi and also the symptoms like swara heenata, jihva-vak paridaha has been attributed to Amlapitta, which has not been mentioned in other texts.\textsuperscript{47} Rasoushadis including sudhanidhi rasa, lilavilasa rasa, use of abhraka etc. has also been explained.

**Bhavaprakasha**

Amlapitta has been dealt seriously in this particular samhittha with the entitlement of ‘Amlapitta sleshmapitta adhikara’\textsuperscript{48}. Etiopathological factors and classification has been described with similarity of Madhava nidana. The symptoms of Sleshma Pitta has been described which includes praseka, mukha madhurya and sioruja and also a choorna combination has been mentioned. Here there is an indication of identification of Kapha dominant Amlapitta. He has put forward many recipes along with khandha kushmanda avaleha, narikela khanda and brihat narikela khanda.\textsuperscript{49} The importance of daily intake of amalaki swarasa is mentioned as effective in Amlapitta and also as a rasayana.

**Vaidya Jivana and Vaidya Rahasya**

A kwatha of bhoonimba, nimba, triphala, patola, vasa, amrita, parpata and bringaraja is the only mentioning in Vaidya jivana. In vaidya rahasya, the treatment of Amlapitta is explained, which resembles that of Chakradutta. Sodhana chikitsa followed by samana, is the proposed protocol with combinations that include avipattikara choorna, nalikera khanda and gudapippalyadi yoga.\textsuperscript{50}

**Bhaishajya Ratnavali**

The treatise explains a number of recipes for Amlapitta and also the effective soubhagya sunthimodaka and sunthi khanda.\textsuperscript{51} Along with the same,
pathya-apatya for the particular roga, has also being explained. The treatment protocol observed is very much similar to that of Chakradutta.

**Sidhanta nidana**

This treatise is visualizing many of the diseases through the gaze of modern symptomatology as well as the pathology. Gananathsen opines that the indulgence of the nidana mentioned for vidagdhajeerna at a superior or next level, leads to the manifestation of the condition, Amlapitta. Anasana, akalabhojana, madyasevana and vishamasana has been included among the nidana, which may lead to the increased production of amlarasa srava. This amlarasa srava aggravates with the intake of the food. The excess amlarasa produces daha and also damages the amasaya abyantara kala. The pathology seems to have been explained, as per the modern medical knowledge.

Raktapitta, amasaya kshata, atisara, siro peeta and soola are included among the symptoms. The types as per the dosha also have been explained. He describes some of the complications that of Amlapitta, which is not mentioned in the other former texts such as udarda, vicharchika, visphota, raktapitta, grahani etc. Amlapitta which is chronic and associated with soola is said to be not good in prognosis, says Sidhanta nidana. Also while explaining the soola, it is said that, of all the soolas, those caused by Amlapitta, is the most vital, as well as severe one. If it is occurring in the amasaya, it is called annadravasoola and if in grahani, it is termed as the parinamasoola.

To conclude, it is crystal clear that, the various treatises in Ayurveda had approached the condition Amlapitta very seriously as well as systematically.
Definition and Etymology of Amlapitta

The ‘Amlapitta’ is constituted of the words ‘Amla’ and ‘Pitta’. The term Amla has been used as an appellation to Pitta. Though, the Amla has been said as a natural property of Pitta along with katu rasa, according to Charaka. Sushruta has enlisted katu as its original rasa and mentioned that when the Pitta becomes vidagdha, it transforms to amla in rasa.

By considering the disease as well as its symptoms, it seems that in Amlapitta, the Pitta seems distorted or is vidagdha, as mentioned by Acharya Susrutha. Shrikantha datta in his commentary here, has defined that Amlapitta is a condition where excessive secretion of Pitta with amla in guna takes place, resulting in the conditions like vidaha etc.

- “Amlagunodriktam Pittam Amlapittam”
- “Vidaahyamla gunodriktam Pittam”
- “Amlapitta samjnaam tu amlamamlaadhikam Pittam yateti Vyakhyaaya”

Therefore, Amlapitta is a condition where amlarasa of the Pitta dosha gets amplified, in an unusual manner. For any dosha, the rise in a peculiar characteristic of it, even though it is its natural one, is considered as pathological. The normalcy of the various properties of a dosha is essential for its ideal functioning. In Amlapitta, the Pitta gets vitiated by one or all the gunas, causing various pathophysiological conditions of annavaha srotus and purishavaha srotus.

Madhava Nidana has given a clinical definition of Amlapitta that, the presence of avipaka, klama, utklesha, amlodgara, gaurava, hrit-kantha-daha and aruchi together should be coined as Amlapitta. This is a disease mainly due to
vitiation of Pitta (Pachaka) but Kapha (Kledaka) and Vata (Samana) vitiation is there associated, as mentioned by Shrikanta datta. In samhitas, some other words have also been mentioned, in the reference of Amlapitta. These are amlaka, dhumaka and vidaha which are seen in conditions, with the disturbed Pitta.

The word Amalpitta is composed of the words Amla and Pitta, as mentioned earlier. Pitta is a dosha which is present in the living body and responsible for the digestion, formation of raktadhatu, colouration of the skin, vision, body temperature etc. In brief, it is more or less responsible for all the biochemical transformations, at the cellular level as well as the supracellular level.

‘Amla’ is presented as a qualitative word, which is indicative or characteristic of the guna which is a rasa, implicating sour in the taste. The amla rasa is having its own natural physiological functions in the body including digestion, as mentioned under the karmas of the individual rasas. The rise from the optimum level may cause alterations in the function of the body. That is the reason of a balanced diet being advised, constituting of all the rasas.

According to Dalhana, the commentator of Sushruta samhitha, there are two clinical stages of Pitta.

(1) Sama Pitta  (2) Nirama Pitta.

This is a condition not only for Pitta but also for all the other doshas. Acharya assumed that sama Pitta has amla rasa, while nirama Pitta has katu rasa. So the symptoms of Amlapitta are due to the Pitta, which is sama or associated with ama or a condition produced by sama Pitta.

Chakrapani assumed that Amlapitta is a condition in which amla property of the Pitta is exaggerated. Madhukoshakara has also accepted this.
definition. He has given the vidagdha status of Pitta as a causative factor, for aggravating the amlaguna of Pitta.

**ANNAVAHA SROTUS**

**Anatomical and Physiological Aspects**

The word Annavaha srotus narrates the channel through which food is transported, metabolised as well as absorbed. This is otherwise called the koshta or the mahasrotus. The koshtangas mentioned provides functional support for the entire mechanism.

The functions of Annavaha Srotus deals with

- Anna adana (ingestion)
- Anna pachana (digestion)
- Sara kitten vivechana (separation of nutrients and waste)
- Rasa soshana (absorption of nutrients)

**MOOLA STHANA**

For every srotus, the moola sthanas are mentioned by the Acharyas which can be inferred as the key centres for controlling the functions, to be performed by the system, which is represented by the srotus. Like wise these areas are having too much significance in the management of pathologies affecting them. For the Annavaha srotus they are

- Amashya and vamaparshva
- Aamashaya and annavaha dhamanis

These are said to be the manipulative centres for the entire digestive mechanism, in the body.
Chakapani has given the two terminologies - urdhva and adha, in the case of amashaya\textsuperscript{33}. Urdhva amashaya is the location of the Kapha, while the adho amashaya is the location of the Pitta. Amasaya can be considered as the sthana of both the doshas, Kapha and Pitta. Otherwise, a disease in which amasaya is the prime sthana, both of the doshas has to be considered in the pathogenesis as well as the management.

The ingestion and the deglutination process of food commences from mouth and in the upper part of the esophagus. The main digestive process starts from the stomach, even though salivary enzymes also has a minimum role to perform, in the initial stages. Digestive juices are secreted from the lower part of the stomach and the intestine. Bile and the pancreatic juice secreted from the liver and the pancreas then after, secretes to the small intestine.

Therefore we can include oesophagus and upper part of the stomach as urdhva amashaya and lower part of the stomach and small intestine as adho amashaya, for the matter of explanation. So both the functions of Kapha and the Pitta, can also be interpreted here. The term annavaha dhamanis are also, explained as the moola sthana, of the annavahasrotus which are the channels that transport the end products of ahara from the intestine, to the blood. Under the microscope, the mucous membrane of the small intestine contains villi, the purpose is to increase the surface area of absorption, within the available area. The villi are providing such an extensive area for the GI tract, for enhancing the absorption, as equal to surface area of a tennis court, as per published studies\textsuperscript{74}.

This villus is lined by a single layer of epithelial cells, small arteries, veins and lymphatic vessels. The villi act as a semi permeable membrane and
permits the course of digested food through the rasavaha srotus and raktavaha srotus. In other words, these microscopic parts of the membrane, carry out the transportation of the ahara rasa though the intestinal barrier, so that it is absorbed to the body and are transformed as the dhatus.

**PITTADHARA KALA**

Acharya Sushruta and Vagbhata have described the Pittadhara kala. Acharya Sushruta opines this as “the sixth kala situated in between the pakvashaya and the amashaya and it is better known as Grahani.” In his view, “the integrity of grahani depends upon the agni.” As per Charaka, grahani is so called because of grahana ie. it receives and retains the food, upto the extent of its digestion. He observed that the food, which has reached the amashaya after under going the digestion, is absorbed, while the grahani holds the food for the time being, essential for the digestion. Such a minimal retension of the food or a timelag is crucial for its proper digestion.

Pittadhara kala endows with the digestive juices collectively and functions as jatharagni. These enzymes not only digest the food, but also aids the seperation of the saara and the kittabhaga.

The descriptions of Pittadhara kala illustrate that it is a macroscopic structure which not only serves as the protective lining of the small intestine, but also as a secreting and absorbing structure. The structure can be compared as the absorptive area of the small intestine responsible for absorption. Here the term ‘grahana’ is mentioned not for the sphincteric action, but holding the food so that, the absorptive action is properly undergone. So the area responsible for performing the digestion of food, that is localized in the intestine is the “grahani”.

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Samana Vatha

Vagbhata clarifies that the Samana Vatha is located in the vicinity of the agni and responsible for the reception, digestion, separation as well as propulsion of the food\textsuperscript{77}. The seat of agni is said as grahani. The functions of Samana Vatha are similar to intrinsic nervous system of the stomach and intestine. Intrinsic nervous system is the part of the autonomic nervous system, supplying the gut. This system is related to the brain and the spinal cord and works as its integral part.

The peristaltic movements of the intestine are responsible for the mechanical breakdown of the intestinal contents. They are throughly mixed up with the enzymes of pancreas, liver and the small intestine and are absorbed through the intestinal wall. So the Vatha dosha definitely have an important role in the modus operandi of digestion. One such condition we are observing frequently in the clinics is the diabetic gastroparesis where, the gastric emptying is delayed due to the affection of the intrinsic nervous system, resulting from the slowening of the nerves, resulting from the diabetes\textsuperscript{78}. It is a magnificent observation done by Vaghbata that, there is a chance of one with prameha, to have kroorakoshta, and has to be managed accordingly.

This has been known to be described as the role of Samana Vatha in the digestion of food, separation of nutrient fraction and also expulsion of the undigested food ie. pachana, vivechana and munchana.

We consider following organs & systems in annavaha srotus

(A) Amashaya:-

(i) Urdhva :- (a) Oesophagus  (b) Upper part of the stomach
(ii) Adha: - (a) Lower part of the stomach (b) Small intestine
(B) Pittadhara kala: - Inner layer of mucous membrane of small intestine and lower part of stomach responsible for absorption.

(C) Annava dhamanis: - The channels that receive the end products of the food from the intestine.

(D) Samana Vayu: - Intrinsic nervous system of the GI tract.

**AHARA PAKA KRIYA**

The ahara undergoes two stages for the complete digestion says Chakrapani.79

(A) Avastha paka    (B) Nishta paka or Vipaka

In Ayurveda, the digestion and metabolism is interrelated to agni. Mainly the Pachaka Pitta is responsible for the digestion of the food.80 The Pachaka Pitta is situated in the grahani that directly participates, in the mechanism of digestion. Grahani is also considered as the Pittadhara kala, by the Acharyas. Avastha paka is the primary phase and vipaka is the subsequent phase of the digestion. Avasthapaka, the former phase of the digestion is completed by pachakagni in the annavaha srotus and vipaka, the subsequent phase of digestion is completed by bhutagni and dhatvagni. Vipaka commences after the avasthapaka and is also responsible for the metabolism at the cellular level.

(A) **AVASTHAPAKA**

There are three stage of the avasthapaka mentioned as such81.

(i) madhura avasthapaka (ii) amla avasthapaka (iii) katu avasthapaka

(i) **Madhura Avasthapaka**

Four types of intaken ahara like the asita, peetha, leeda and khadita that reaches the amashaya turns in to madura bhava, initially. At this stage, salivary
digestion will be completed in the fundus of stomach, where the insoluble starch and polysaccharides are converted into soluble dextrin, under the influence of salivary amylase. The final rasa in the upper portion of the urdhva amashaya, is madhura. Prana Vatha is responsible for the entire movement of food from the mouth to the amashaya. It is responsible for the mechanisms like shteevana and also controls the budhi or the higher control, in this regard. Any alteration in the functioning of Prana Vatha results in the disorders of deglutition or swallowing. Such presentations are seen in conditions like bulbar palsy, where the deglutition is affected, eventhough there is no disturbance in the organs concerned with the same.

The Bodhaka Kapha and Kledaka Kapha are also responsible for the madhura avasthapaka. Bodhaka Kapha is responsible for perception of the taste of the food in the mouth. The Bodhaka Kapha is the analogue of the saliva which acts on substances including proteins, the enzyme content begins to act and it lubricates the food. Kledaka Kapha lubricates the food in the amashaya and also converts it into such a form, so that the action of the other enzyme is also enhanced. We can consider it as mucine like substances present in the stomach.

(ii) Amla avasthapaka

An amla type of srava occurs here, and after its completion, ahara is transformed to amla and hence termed as the amla avasthapaka. Ahara gets converted from insoluble proteins to soluble one, under the influence of pepsin, in the presence of the hydrochloric acid. According to Charaka and Vagbhata, the final outcome of the entire gastric digestion is the acidified chyme. The term ‘Vidagdha’ has been interpreted by Chakrapani as ‘pakva- apakvam’ or ‘kinchit pakvam - kinchit apkvam’ i.e. partly or not fully digested. At this phase, the
ahara pachana is due to the amla factor secreted within the urdhva amashaya. The ahara which is amla in nature passes on to the next lower portion of the annavaha srotus, where achapitta is secreted.

The acidified chyme passes down from the pylorus to the duodenum, acts as a stimulus for the duodeneal glands, to secrete the secretin, cholecystokinin, enterogastrone, pancreozymin etc. The presence of acid in the duodenum enhances the circulation of the secretin and stimulates the flow of the pancreatic juice. Secretin also enhances the secretion of the bile and the intestinal juice.

The pancreozymin and intestinal hormone also stimulates the secretions of enzymes from the pancreas, occurring in the intestinal mucosa. Cholecystokinin is also responsible for the contraction of the gallbladder and therefore the discharge of bile to the duodenum. All these hormones act due to entering the acidified chyme in to duodenum and therefore pancreatic juice, bile and intestinal juice are secreted in the small intestine. In Ayurveda, achhapitta can be considered as a combination of these enzymes, responsible for the mechanism of digestion. Due to these enzymes, all the fats and semidigested proteins are digested and converted to fatty acids, glycerol and the amino acids.

(iii) Katu Avasthapaka

The content transverses down the pakvashaya from the amashaya and are being dried up by the action of agni and are rendered in to lumps here ie. Paripindita pakva. Already the main component of absorption has been completed from the small intestine itself. The sesha agni indicates that the digestive process going on here is continuous that of amasaya. During this process, Vatha and mala
are produced, as the outcome. The minerals and water are absorbed from the end products and the remaining materials are converted into faeces.

(B) **VIPAKA**

According to Charaka, the digestion of food by the jatharagni breaks down the food into parthiva, apya, agneya, vayavya and akashiya. Activated agni bhuta is present in each of these bhautika groups. The bhutagni thus activated, digests the substance of the peculiar group, converts and also helps their absorption into the body. Panchaboutika nature of the sareera is maintained with the food in this manner.

(i) **Bhutagni Paka**

Bhutagni paka follows jatharagni paka and it completes the process of intestinal digestion. After the bhutagni paka, ahara rasa is completed and the rasa shoshana is possible. Thus the Agni constituents of the predominant parthiva molecule spoken as the parthivagni, digests the substances of the corresponding molecule. Similarly apyagni digests the substance of the molecules of apya and so on. The outcome of this type of digestion according to Chakrapani, is the transformation of the characteristic qualities of each group and the assumption by them of vilakshana gunas or all together new qualities. This is in fact the conversion of the food as a whole to its different basic components, being explained through the physico chemical parameters, according to this ancient science.

(ii) **Dhatvagni Paka**

After jatharagni paka and the bhutagni paka, the resultant ahara rasa is absorbed from the annavaha srotus and circulates of dhamanies throughout the body. This annarasa undergoes the process of dhatvagni metabolism and thus the
seven dhatus are formed and also stabilized. Each of the seven dhatus has to be provided nutrition for their growth and maintenance. Seven dhatvagni corresponds to seven specific dhatus respectively: viz rasagni, raktagni etc. The rasagni does the digestion of the ahararasa, so rasadhatu and its mala ie. the malarupa Kapha is the result.

Similarly, every dhatvagni digests the same molecular particles of the ahararasa and the corresponding dhatu is developed. Charaka explained that the pakas act upon the seven dhatus giving rise to kitta and prasada bhaga. The prasada part is related to the anabolic aspect and the kitta part to the catabolic one. Dhatvagni converts the ahara rasa in to the sthayi and asthayi dhatu. Prasada bhaga is being an asthayi dhatu. Asthayi dhatu is converted into sthayi dhatu by the particular dhatvagni by its accomplishment.

By the dhatvagni, the kitta portion like sveda, mutra, purisha, vatha, pitta, kapha, smashru, nakha, kesha etc are also developed, which are infact the dhatumalas. The significance of the dhatumala is that, they are the direct indicators or predictors of the ongoing proper dhatu metabolism. The alteration in the status of the malas indicates a derangement of the dhatu metabolism and has to be considered by the physician. So their level in the body is having its own significance, rather than the functions.

Jadaragni paka results only in the breakdown of complex substances into their elemental forms, which continue to be viajatiya in nature, says Chakrapani. Bhutagnipaka is required to process and convert them to pre-homologous substances. These are being worked upon by the seven corresponding dhatwagnis, leading to the contribution to the respected dhatu.
Ayurvedic scholars have given various hypotheses like Khalekapota nyaya, Ksheeradadhi nyaya, Kedara kulya nyaya etc. so as to narrate the transformation and metabolism of dhatus in the body, in an scientific manner. These seem helpful in illustrating the dhatu transformations and the pattern of distribution to all dhatus, in an effective manner. These are also helpful for a critical and analogical reasoning of the pathologies, in the dhatu parinama as well. For eg. in conditions like muscular dystrophy, where the mamsa dhatu is affected much more, than either the rasa or rakta dhatus, the pathogenesis can be explained using the khale kapota nyaya as the nutrition of mamsa dhatu is impaired without much affecting the rasa or rakta dhatu, the contributory component being, the genetic or hereditary factors. Like wise is the case of the other nyayas. The various nyayas represent the different aspects or the areas of the dhatu metabolism.

PATHOPHYSIOLOGICAL ASPECTS OF ANNAVAHA SROTUS

Main Reasons for vitiation of the srotus

(1) Atimatra Bhojana  (2) Akala Bhojana
(3) Ahita Bhojana    (4) Agni Dusti

Ati matra bhojana is the excessive intake of food not only in quantity, but also in quality. Nowadays the over or excess nutrition with the reduced expenditure of energy resulting from the sedentary life style, is the causative factor of many a lifestyle disease. Hence the santarpanajanya diseases are on the rise, nowadays all over and is also gaining importance.

Akala bhojana means the irregular pattern of food intake which includes the time factor as well. Timely intake of food and its importance is an
area that needs further discussion. Its role in the pathogenesis of many abdominal conditions has been studied in detail. Ahita bhojana means the food taken by the person that is not reliable or ideal for his health. The aspect may have a psychological component as well as it affects the proper digestion, of even an ideal food. A food which is ideal to a person may not be suitable for another. Dietary habits also vary from place to place or country wise.

Agni dusti means the improper digestive power or mechanism which may be contributed by quite a few factors. First three causative factors mentioned above contribute to the agni dusti by the alteration in the customary functions of the doshas. The cause of agni dushti is also due to other diseases like rajayakshma, inhibition of vegas, excess intake of drava ahara or due to the psychologic components such as soka, krodha etc. affecting the digestion. The violation in the rules regarding the sodhana procedures also results in the disparity of agni.

All the above causative factors create the platform for the manifestation of a disease of the annavaha srotus, including the Amlapitta. They generate the amadosha and abnormality in the functioning of the doshas, which is responsible for the aggravation of the mechanism of the diseases like ajirna, chardi, atisara, arsha, grahani, Amlapitta, alasaka, aruchi, visuchika etc. These causative factors alter the functioning of the annavaha srotus and its components as well as the Pittadhara kala resulting in the manifestation.

**DUSTI LAKSHANA**

Four cardinal symptoms are mentioned resulting from the annavaha srotodusti. They are the the primary and cardinal presentation of any diseases affecting the srotus including the GI tract. These features are seen as combinations
in several diseases and are also of the most informative.

(1) Arochaka
(2) Avipaka
(3) Chardi
(4) Anannabhilasha

(1) Arochaka

The loss of exact taste of the food is considered as Arochaka\textsuperscript{100}. The loss of interest in the intake of food even though it is very excellent and delicious, is the case. Acharya Sushruta opined that arochaka is a condition in which one has absolute loss of interest in the food due to shoka, bhaya, krodha, lobha etc.\textsuperscript{101} Vitiated tridoshas and manasika bhavas are mentioned as locating in jihva, hridaya and bhaktayana in the condition\textsuperscript{102}.

The different areas of sthanasamsraya point out to the various causes of arochaka like oral cause, psychological cause along with the GI cause. According to Sushruta, manasika bhavas including shoka, bhaya etc. are the dominant causative factors of the same. They generates the vitiation of the three doshas. Vitiated doshas situated in jihva, hridaya and bhaktayana causes the various types of arochaka according to the etiological factors. Arochaka is to be dealt with seriously because it may be the key presentation of an uncomplicated disease like Pandu to the most terminal conditions like gastric carcinoma\textsuperscript{103}.

(2) Avipaka

Avipaka points to the lack of proper digestion as well as absorption of the food. The paka of the ahara or biotransformation is affected due to disturbance in agni or alteration in the digestive mechanism and the avipaka is the resultant condition. It is also termed as ajeerna, ajaraka, apakti and paktinasa by various scholars\textsuperscript{104}. Any sort of digestion can be included under avipaka, if it is
lacking in any sort, so that it is not resulting in effective absorption. It is one of the symptoms of koshtagata Kaphakopa says vridha Vaghbata. The paka of the food is affected by the altered functioning of any of the three doshas.

The causative factors may be either a psyche or a somatic one. Grahani is the key organ in the annavaha srotus, responsible for the digestion and the absorption of the ingredients. Any alteration of its functioning may lead to symptoms like avipaka. So the Pittadhara kala and the agni are also disturbed, because there is a reciprocal relationship between the agni and the grahani. Such is the explained pathogenesis and significance of the conditions like grahani.105

The mucos membrane lining the stomach and small intestine is responsible for the secretion of enzymes. If there is some disturbance in it, the enzymes are not secreted properly, resulting in avipaka. Avipaka is also resulting from conditions with hypermotility of the intestines like IBS, diarrhea etc. Many GI conditions such as gastritis, peptic ulcer, malabsorption syndrome etc. have avipaka as the primary symptom. Many of the psychological factors such as fear, anxiety etc. also leads to avipaka. It is one of the presentation in many a psychiatric conditions like depression, indicating the psychological component.106

(3) Chardi

Chardi is the forceful expulsion of the gastric and / or duodenal contents through the mouth. Usually it may be the resultant item from avipaka and the alteration in agni. Mainly the components of Vatha dosha, Udana and Samana seem to be disturbed in Chardi, according to Susrutha.107 Prana vayu is also a contributor factor, as the transfer of food from the mouth to the stomach, is well explained as its function.108
Chardi occurs when any part of the upper GI tract is excessively provoked or disturbed. Impulses are transmitted both by vagal and sympathetic afferent to the vomiting center of the Medulla, which lies near the tractus solitarius.\textsuperscript{109} Motor impulses are transmitted though the 5th, 7th, 9th, 10th and 12th cranial nerves to the upper GI tract and through the spinal nerves, to the diaphragm and abdominal muscles.

This nervous mechanism is considered as a vitiation of Vatha in Ayurveda, as the sole responsible factor for the motility, is Vatha\textsuperscript{110}. Mainly observation of anti peristalsis activity is responsible for the vomiting. Irritation of mucus membranes like gastritis, enteritis etc are also responsible. In psychological vomiting, there is direct stimulation of the chemoreceptor trigger zone (CTZ) which is causative behind vomiting, at once, without enough prodormal or warning symptoms.\textsuperscript{111}

(4) Anannabhilasha

Anannabhilasha means the overall loss of desire or interest of food even though it is provided, as per the daily demand by the individual. Chakarapani has mentioned that the particular person can dig the food in to stomach through the mouth with the loss of interest of food, persisting \textsuperscript{112}. The absolute loss of appetite may not be there, but the interest in the food intake is mislaid, accordingly. In Ayurveda, this is termed as abyavaharana sakthi and it has to be successfully differentiated from jarana sakthi, which is altered in several conditions.\textsuperscript{113} Here, if the person is taking the food without considering the status of abyavaharana, it may not get properly digested.
Aharaparinama kara bhavas

Gastro intestinal digestion or change in the state or form of the food substances in amashaya and pakvashaya is the course of the digestive process. Two phases of the paaka ie. prapaaka and vipaaka have been envisaged. The prapaaka opines Chakrapani, as the prathama paka or the primary stage. These changes have been described in terms of the rasa or the taste of the end products of gastro-intestinal digestion viz. madhura, amla and katu.

Prapaka commences right from the time, when food is introduced into the mouth. This aspect of digestion ie. in the upper portion of urdhwa amaashaya are comprehended by the madhura bhava. When the food is introduced into the mouth, the perception of its rasa takes place which is stated to be enabled by Bodhaka Kapha which is also agreed by Vaghbata. The next event which takes place is the categorisation of food by the tejas or agni element of the lala srava, also described in Ayurveda Sootra. Taste perception, preparatory digestion and the beginning of the madhura bhava occur here. The movements are brought by Prana Vatha.

The second phase i.e. amla avastha paaka involves the vidagdha stage of food. As the partly digested food which has attained amla bhaava is moved down, the achha Pitta is secreted. The term amla refers to the production of Pitta under influence of the ahara, which has since assumed amla in nature.

The third aspect of avastha paka is the katu bhava. This aspect relates to the acrid and pungent nature of the reactions that occur in the pakvashaya. Charaka explains that the material passed down from the amashaya having reached the pakvashaya is dehydrated and converted into lumps by the ushma.
Chakrapanidatta has observed that the term soshana used by Charaka instead of Paachana, is very relevant.\textsuperscript{121}

The former relates to the dehydration of the food residue, which has been brought to pakvashaya whereas, the later refers to the digestion of food in the amashaya by the agni. The term ‘Paripindita pakva’ refers to the process of formation of fecal lumps\textsuperscript{122}. The term ‘Vaayu syat katubhavatah’ describes the production of acrid and pungent gas\textsuperscript{123}. Pakvashaya is the seat of Vatha where all the fractions are formed and hence the pakwasaya is considered as the prime site of the Vatha dosha. The importance of pakwasaya in the management of Vatha vyadhi comes over here. That is the reason of vasthi being considered as the ultimate sodhana procedure for Vatha, the site of action of it, being the pakwasaya.

Sushruta opines that the separation of rasa, mala and mootra is brought about by the Pachaka Pitta\textsuperscript{124}. Sharngdhara and Bhavamishra states that, the sara bhaga or useful portion is known as rasa, and the saraheena bhaga is the mala\textsuperscript{125,126}.

Shad ahara parinamakara bhavas or the six factors responsible for the proper digestion are mentioned by Acharya Charaka\textsuperscript{127}.

\[ \text{i.e. } \begin{array}{ccc} 
\text{i) Ushma} & \text{ii) Vayu} \\
\text{iii) Kleda} & \text{iv) Sneha} \\
\text{v) Kala} & \text{vi) Samyoga.} 
\end{array} \]

Let us discuss one after the other and its role in digestion.

\textbf{i) Ushma:} Ushma is a quality of agni mahabhuta, which is represented in the body in the form of Pitta. Here two related terms are to be considered i.e. Agni and Pitta. Sushruta explains that there is no agni except Pitta, in the body
and that agni or Pitta can be represented itself in the body, in the form of the ushma only. Out of the five types of Pitta, Pachaka Pitta situated in the amashaya, performs all the favorable and unfavorable functions, described as agni. Various secretions of the GIT can be considered in the radiance of Pachaka Pitta. The Pitta which has lost the natural drava guna is said to function as the agni. So the release of these secretions in proper time and the quality of the same is crucial for proper digestion, interruption of any of them will lead to agni dusti and commences the background of the aetiopathogenesis, for a disease.

**ii) Vayu:** Samana Vayu is seated in amashaya and helps the Pachaka Pitta in digestion, explains Sushruta. There is a vicious relationship between the three components of Vatha responsible for the entire digestive mechanisms, Prana, Apana and Samana. The Prana and Apana Vayu balances or maintains the Agni. Prana Vayu directly takes place in the act of digestion by transporting the food upto the stomach and Samana moves in koshtha all around and performs the functions attributed to agni, grahani and Pachaka Pitta. Three phases of gastric acid secretion can be considered under the karma of Vayu ie. the cephalic phase, gastric phase and intestinal phase. The other two fractions of the Vatha, the Udana and Vyana is also having indirect role in maintaining the digestive mechanism.

The apakarshana, grahana and munchana karma of Vatha are essential for proper digestion and any exacerbation or cessation in these, lead to improper digestion. As definite time is required for proper digestion, delayed emptying will cause shuktapaka and formation of annavisha or ama, essential for the samprapti of abdominal disease. Now, it is clear that all the regulations of the secretions can be understood to be by Samana Vayu. Any disturbance of Samana causes agni vaishamya, which leads to ajeerna and the pathogenesis. The etiological factors
like krodha, shoka, bhaya, chinta and other stress factor work through the vagus chain, which is mediated by Vatha. Provocation of Vatha by any factor will result in hypo or hyper secretion leading to gastritis or similar manifestations.

### iii) Kleda:
This factor is necessary for the proper digestion. For a food to digest in an effective manner, several changes must occur inside the GI tract. Kleda loosens and emulsifies the food substance, so that it may be easily digested. This function is performed mainly by the liquid portion of the food where Kledaka and the Bodhaka Kapha is considered. Charaka has mentioned that the function of disintegration and softening of food substance in the Koshta is due to ‘drava’ and ‘sneha’.

Though Kapha has not been explained having drava quality but Kapha is made up of ‘Ap’ dhatu and so that Kapha possess dravata, but it depends upon the ushna guna. So the task of Kledaka Kapha can be summarized as kledana, sithilikarana, mridukarana and samghata bheda. Also Bodhaka Kapha does moistening of mouth to help in speech and aids mastication. Dravata is also the quality of Pitta and kleda functions can also be attributed to dravata of Pachaka Pitta. The ideal level of dravata is ultimate for the proper digestion to take place, balanced by Pitta and Kapha.

The excessive klinnata hampers the agni directly as mentioned in the literature that, dravata ceases the agni the ideal example being Pittaja grahani. Eventhough this disease is Paittika in nature, the Pitta causes agnimandya due to increase in the drava guna, says Chakrapani, while clarifying the role of agnimandya in Paittika grahani.

Ingestion of any excessive ushna, tikshna and katu dravya causes too
much secretion of the mucosa, which interferes with digestion process and causes
the vidagdha avastha in excess, leading to conditions such as arijna. Similarly,
increase in the Kapha dosha causes the mandagni. Hence, if the function of Kapha
ceases or lessens, the insult can directly be produced due to action of agni on the
mucosa, leading to conditions like gastritis and even that of gastric ulcer. Hence,
a very delicate balance of the responsible factors is required for proper digestion.

iv) Sneha: Usually ahara consists of the property of sneha which is
the most familiar or the guna which is most satmya to the human. Kapha is also
having the property of Sneha, it also belongs to Ap mahabhuta which is been
described, possessing a specific quality of ap. Pitta is also having sneha guna but
not to the extent of Kapha. Hence, it can be said that, sneha is also the quality
of Kledaka Kapha and also the Pachaka Pitta. Sneha performs the function of
mardava of ahara. Ultimately it helps in the proper mastication and churning by
stomach musculature, so that proper digestion and the transformation takes place.

The decrease in the quality of sneha damages the intestinal mucosa
due to ruksha guna of the various food materials. Hence, sneha guna also performs
the protective effect to the stomach musculature during the mechanism of
digestion, which is attributed to Kledaka. The similar thinking comes as the
bicarbonate mucosal layer protecting the mucosa form the tides of acid secretion.
Decrease of sneha in the stomach leads to provocation of Samana Vayu which
causes imbalance of agni, infact leading to diseases. Nowadays people are having
numerous food items which adds to rookshata of koshta affecting the functioning.

v) Kala: This is an important factor for every process to accomplish
which starts with the time of ingestion of food. Kala means mainly, the time
required for the digestion of the ingested food. Time required for the proper secretion of all the digestive components and for proper digestion and absorption, is also a matter of concern here. But other consideration of the kala are also necessary for proper digestion and absorption of food i.e. the kala or time period of kshut, trishna, dosha, rithu, chinta and also charvana. The normal status of agni is having the diurnal variation and the seasonal variation.¹³³ That is the reason of the seasonal purification methods mentioned with rithucharaya. Like wise is the case of drug administration, the virechana drug is administered at the time after the Kaphakala, for achieving the optimum action. Like wise, the sodhana sneha should be administered before the feeling of appetite.

The subsequent food is to be taken after the proper digestion of the previous meal. The meals we had without proper digestion of the previous one is termed adhyasana and this untimely food leads to improper digestion and also mixing of the undigested and semidigested food causing amadosha, leading to agnidushti. Emptying of the stomach requires certain instance, liquids empty rapidly than the solids, in a usual manner. Timing of transit of food material in the intestine is regulated by Vatha. Any disturbance to Vatha disturbs the dharana and munchana period leading to improper digestion and absorption, leading further to provocation of the doshas and agni. Also the prakrithi, koshta status as well as the status of the psyche of the individual, is also having a role in the intestinal movements. That is the basic difference in the individuals by differing in koshta, prakrithi etc.¹³⁴ Excessive dharana of acidified anna causes damage to the duodenal mucosa, as the ahara turns vidahi. Adhyashana and ajirna-bhojana causes prakopa of all the three doshas simultaneously, leading to agnidushti¹³⁵.
vi) Samyoga

Equilibrium of all above factors are necessary for the proper digestion. Ashtavidha ahara ayatana should be considered and followed always, to avoid the aetiological factors for agnidushti. Charaka has specified a judgment on the various aspects of the qualities of food materials, which is obvious from the fact that, most of the diseases have a long list of etiological factors from the dietary habits and also the contents of the diet. Acharya has formulated guidelines for a healthy diet selection and at the same time framed the rules for healthy eating, for maintaining the health\textsuperscript{136}. Therefore the ashtavidha ahara ayatana and the ahara vidhi vidhana should be considered in a serious nature, so that the agni vaishamya and vitiation of doshas may not take place.

vii) Ashtavidha Aharavidhi Visheshayatana

Acharya Charaka suggests a few factors to be considered or assessed while selecting the food. The hitatwa as well as the ahitatwa has been explained by Chakrapani in the explanation. Such factors are being explained in detail by the Acharya in the Vimanasthana indicating that, an ideal food selection is the prime factor supportive for the digestion which is the reason behind the variation in diet from place to place.

a. Prakriti (Natural Qualities) – Before ingestion, the natural properties of food must be considered so that these may not hamper the agni as well as the doshas. Here, prakriti means the natural qualities of a substance prior to any samskara or processing. For example, among the dhanya, masha is guru, while the mudga is laghu by prakriti, says Chakrapani\textsuperscript{137}. The difference in the gunas of the food may have different impact on the the agni as well as the doshas, during the process of digestion.
b. **Karana** (Preparation) – Various preparation procedures increase, decrease or rather alter the properties of the food stuffs which is due to admixture of water, heating and predominance of time as well as the season. Also the other factors ie. desha, kala and bhajana must be considered, during the instant of preparation process. Chakrapani has specified several examples for the same. The dhanya such as saali becomes more laghu on samyoga with agni. Dadhi is usually sophajanana, but will act in reducing sopha, after mandhana. The karana factor has to be dealt with before the intake of a particular type of food, along with its prakrithi.

c. **Samyoga** (Combination) – The combinations of dravyas vary much in accomplishment from the individual properties, mentions Charaka samhitha. For eg. the madhua and sarpi which is very excellent and supportive to the body becomes harmful, as a combination. Acharya has discussed eighteen types of virudha in the diet, which is not compatible to the body\(^{138}\). These combinations in one way or other hampers the process of digestion, in the due course. If the same offence is repeated, it may lead to the manifestation of several disorders or diseases itself. The primary location may be in the digestive tract itself.

Acharya has also enlisted the various diseases manifested, including the Amlapitta and grahani roga, resulting from the ingestion of the virudhahara. So, for avoiding an insult for agni, one has to take care to avoid the combinations of virudha, mentioned in the classics. The mentioned list can be taken only as examples as the dietary habits have been changed, to a greater extend.

d. **Rasi** (Quantum) – It refers to the overall quality of food as well as that of the various constituents of the diet. Everybody must eat the required quality
of food, which may directly interfere with the gastric juice secretion and the digestion. Atimatra and heena matra bhojana leads to impaired digestion, resulting in vitiation of the doshas. Not only vitiation, but the heena matra bhojana may result in many diseases arising, as a result of undernutrition and the resultant depletion of dhatus, as well as the Vatha kopa. The ideal matra suitable for the body has to be promoted, so as to maintain the healthy status of the GI tract.

e. **Desha** (Habitat) – This denotes the place relating to growth as well distribution of a substance. The different desas vary in the dosha status as well. Really the quality or guna of the food stuff varies depending on the habitat, in which the plant grows. Such alteration in the climate and the soil seems to affect the chemical constituents of the plant. So the same food stuff collected from different habitat varies in the guna, slightly. This may also directly affect the status of the agni and hence digestion. So as the desa or sthana of those who are intaking the food is also included here and also has to be considered.

f. **Kala** (Time factor) – Here both nityaga and avasthika kala should be considered. Nityaga is the diurnal variation and avasthika is the variation as per the age of the the patient, according to Chakrapani. Seasonal dietetic variation, age wise, diurnal and disease wise variation are all to be considered here. These all may have an impact on the digestive mechanism and functions. There is more chance for a child to have Kaphaja vikara as per the characteristics of his age and also an aged person to have a Vatha vyadhi. We have to consider these factors, while administering the routine food.

g. **Upayoga Sanstha** (rules of use) – Mainly two factors are under consideration here. One is the policy mentioned while having food like naatidrutam,
naati vilambitam, tanmana etc. ie. the nature of food intake, which also have to kept in our mind. The pace of intake, the method of chewing, the status of manas while administering the food, all these are having a role to play in the ongoing digestive process. The other factor is to be kept in mind, is the jeerna lakshana of ahara mentioned. These have to be taken into account while moving on for next food. Ajeernabhojana leads to excessive vridhi of all three doshas, says the Acharya.

h. **Upayokta** – means one who consumes the food ie. the user. Diet varies from person to person according to their physical compatibility and habits. One has to consider all the factors described above to have an ideal food habit. One who consumes the food keeping in mind, all the above said factors, is the real upayokta, opines Charaka. He will have an appropriate digestion and is not much vulnerable to diseases of the GI tract. Such an importance has been given by the Acharyas, regarding the intake of food. The concept of Okasatmya is also discussed in the context as the pathya as well as apathya will become suitable for a peculiar person, on constant and continuous use.

**Aharavidhi vidhana**

Charaka has also prescribed the code of healthy eating, after describing the basis for the selection of a healthy diet which is being discussed below.

i) **Ushnamashniyat** – It enhances the taste, favours agni, makes food easily digestible and does anulomana of Vatha and results in the decrease of the Kapha.

ii) **Snigdhamashniyat** - It diminishes the rookshata of ingested food and regulates the Vayu, makes digestion easy, enhances bala, varna, prasada and also stimulates the indriyas.
iii) **Matravadashniyat** – Quantity is related with the status of the agni of the individual. Such a diet digests and eliminates from the body without altering the three doshas, says Chakrapani. Decline and excess in the qualities of food create the disturbance in agni and results in impairing the normal digestive process.

iv) **Jirne ashniyat** – Ingestion of food before digestion of the previous meal causes the vitiation of agni and all the three doshas. The transforming ahara rasa gets mixed with the subsequent intaken food, leading to disturbance in functioning of the doshas. Hence a meal should be taken only after digestion of the previous meal. It results in the timely nutrition and maintenance of the dhatus. Many current gastric problems are due to the repeated intake of several types of food, without even considering the jeernata of the previous one.

v) **Viryaviruddham ashniyat** – Intake of virya viruddha dravyas cause tridosha prokopa and must be avoided.

vi–xi) **Ishta desha, Ishta sarvopakarana, Natidruta, Nativilambita, Tanmana.**

The food has to be taken from one’s favourite place or atmosphere. We must satisfy all our requirements, during the intake. The food has to be properly chewed and swallowed ie. must be taken not too fast, neither too slow. We have to concentrate on the food and not on anything else. The involvement of mind in the food intake and its absorption in the body has to be taken very seriously. Today’s fast life is not allowing a food intake with the involvement of mind, due to the technological advancements and all. The stress and similar components are
proved as affecting the metabolism and leading to conditions like dyslipidaemia, still they are having food with high nutritious value.

**Bhunjita Ajalpannahasan** – The habits of talking, laughing etc. are also not acceptable while having the food in a proper manner which is the key thing that allows proper chewing of food and mixing with the saliva.

xii) **Atmanam Abhisamiksha bhunjita** – Every user must consider his self well being of psyche as well as soma, while preferring his dietary habits, so that he may follow mentioned dietary rules.

The food administered in such an atmosphere provides some sort of positive energy to the body as well as the mind. In modern life, the least cared thing is the nature or the atmosphere of the food intake. We are eating, while we are doing something else ie. we are not concentrating on the food which is against the methodology, mentioned seriously by our acharyas.

All the above factors cause proper digestion of food by which there is no chance of vitiation of agni and hence lesser chance of getting diseases like Amlapitta. All the above factors are responsible for proper secretion of the gastric juice and normal digestion. If any factor causes vitiation of Pachaka Pitta or Samana Vayu, it leads to agni dushti.

Sushruta has also prescribed the code of behaviour after a meal. He advised walking at least a hundred steps, after the food intake. There after taking rest in sitting position for a while and then lying supine in left lateral posture, is ideal. This provides proper instance for digestion. This seems very much practical nowadays, with the hectic life schedule of the majority of the individuals. The new style of occupation sitting infront of the computer, after taking hyper nutritious
food along with the lack of exercise, is the contributory source behind most of the lifestyle diseases.

**Samanya nidana for the diseases due to agnidushti**

Acharya Charaka is narrating the mechanism of digestion and absorption very effectively, while explaining the chikitsa of grahani. This is because grahani is such a condition where, the proper transformations of dhatu is affected. Chakrapani says that by the term Grahani, the doshas of agni located in the grahani, is being explained.\(^{144}\) Here the transformation and metabolism of the dhatus are dealt with seriously also with the stage of metabolism of the food. The etiological factors for agnidushti are mentioned thereafter.

**Table 1 Samanya nidana for Agnidushti**

<table>
<thead>
<tr>
<th>Dietary habits</th>
<th>Abhojana, ajeerna bhojana, atibhojana, vishamasana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alteration in food quality</td>
<td>Excess of guru, seeta, rooksha bhojana, dushta bhojana</td>
</tr>
<tr>
<td>Unused</td>
<td>Asatmya bhojana</td>
</tr>
<tr>
<td>Iatrogenic</td>
<td>Snehana, sodhana vibrama or unideal paschat karma</td>
</tr>
<tr>
<td>Convalescent</td>
<td>Karsana resulting from other vyadhis</td>
</tr>
<tr>
<td>Seasonal</td>
<td>Alteration in the desa, kala, rithu</td>
</tr>
<tr>
<td>Vega</td>
<td>Dharana of the vegas</td>
</tr>
</tbody>
</table>

These all leads to alteration in the functioning of agni, altered digestive mechanisms and the resultant disorders like ajeerna or in the later stages, diseases such as Amlapitta.\(^{145}\) The resulting ajeerna or amadosha is acting as a toxin or the causative factor, for the a choice of resultant diseases. If it does not gets subsided at that level, the pathogenesis progresses further. The ama or toxin when associated
with Pitta, results in conditions like daha, trishna, mukha roga, Amlapitta etc. If the associative dosha varidhi is that of Kapha, it leads to peenasa, meha, rajayakshma etc. If there is associated Vathavridhi, the result is the manifestation of Vathavyadhis. If the amavisha associates with dhatu dhushti, it may result in rogas affecting that peculiar dhatu. The associative factor, is the deciding point in the pathogenesis of such diseases.146

Thus Acharya Charaka has described two important areas, along with this discussion. Primarily, all the diseases will be having a basic level of doshadushti, originating in the koshta. Secondly, the associative dosha dushti as well as the involved dhatu, is the deciding factor of the disease to be manifested. Also it is to be projected that the dietary factors will not only contribute to digestive disorders like Amlapitta, but also to systemic diseases like prameha or rajayakshma. The initial stage of many a diseases, commences from the koshta itself. For eg. in swasa, one of the initial things happening or the basic level of samprapthi is the Vatha kopa, in the amasaya.

**Nidana of Amlapitta**

Nidana is the sum total of all the causative factors of the disease. They include the contributory factors, to the development of the condition, at all levels. They may definitely aid the management of the disease, by preventing further progress and also the reversal of the pathogenesis. Acharya Sushruta has assumed that, nidana parivarjana is the first line of treatment of any disease147. For the same, a definite knowledge of the etiological factors has to be dealt with.

After a careful screening and analysis of the etiological factors of Amlapitta, discussed under the various texts, it may be better to classify the same
into groups, for the expediency of understanding. Various types of etiological factors have been described, in the reference of the diseases of annavaha srotus and purishavaha srotus.

**Aharaja Hetu**

The first and the foremost group of the etiological factors of Amlapitta may be considered as the dietary factors. Under this group, the intake of food against the code of dietetics i.e. ahara vidhi vidhana and ahara vidhi viseshayatana is included. Various types of incompatible substances, excess use of Pitta aggravating factors like katu, amla, vidahi etc. bharjitanna and untimely consumption are the factors against the dietetic code and they directly disturbs the equilibrium of all the doshas, mainly the Pitta dosha.

Intake of food which is processed by several methods is the custom of the modern community. Refrigerating and reusing of food materials and also the fast foods is also a routine habit now, and is the part of the lifestyle. The use of soft drinks is also creating some sort of mutilation, to the stomach. The increase in consumption of bakery items and smoked items is also not gracious to the stomach. The addictions like smoking and alcohol also definitely disturbs the stomach physiology. Kasyapa advises to consume food materials which are not processed in the dietary schedule of an Amlapitta person, as a part of its management.

**Viharaja Hetu**

To keep the health undisturbed, one is required to follow the code of healthy habits. An individual requires to have the regular habit of defecation, to eat properly and to sleep on time. One must not supress the natural urges, maintaining the equilibrium of the body constituents and by that obviously, he
would maintain good health and proper functioning of the body. If this is not followed regularly, the whole functioning of the body will be disturbed and in the long run, they will cause disturbance to the equilibrium of Pitta and digestion, which ultimately result in conditions including Amlapitta.

The modern life style has affected the above said stuff, very negatively. The habit of exercise is becoming less and less. Also the life style is increasing in the pace as well. Nobody is satisfied with their own pace. The primary affected by all these is the GI system along with its functions.

**Manasika Hetu**

Psychology also plays an immense role in maintaining the health and physiological activities. While one is with an imbalance in psyche, the primary function that gets impaired is the mechanism of digestion and its components.

Any abnormal psychology in terms of anger, anxiety, greed etc. affects the physiology of digestion and also the functions of Vatha, the regulator among the doshas. Either there would be a lesser secretion of the digestive juice or secreted at improper times and sometimes a hyper secretion. All these conditions lead to indigestion which ultimately gives rise to conditions like Amlapitta. Besides, the increased pace in the peristaltic movements also alters the absorptive aspects of the digestion.

The modern medicine has established that gastritis is resulting from the stress and strain which shows the imperative role played by the psychogenic factors, in the production of diseases like Amlapitta. The psychic factors affects the abdomen in altering the release of chemicals and hormones and also affecting the motility of the gut. The enteric nervous system supplying the gut is having as
much neurons as in the brain and spinal cord, as per latest studies. The functioning of the gut is affected by the variation in the neurotransmitter function. This is the reason of the high influence of psychic factors in the functioning of the GI tract.

**Agantuja hetu (Miscellaneous Factors)**

Allied factors can be taken under this factor. Under this group constant and excessive consumption of alcohol, tobacco, beverages, soft drinks, smoking or other irritant substances are taken. These substances cause a local irritation in the stomach which in turn secretes further gastric juice. Also the excessive use of gastro irritant drugs like NSAID’s, corticosteroids etc are also a real contributors.

**Krimi**

Krimi denotes the various microorganisms in the body. While explaining krimi, Chakrapani comments that of the several krimis present in the human body, many are helpful or supportive to the bodily functions. The mentioned names in the text are of the pathological krimis and the non pathological or physiological are not mentioned. But the keen observation of the Ayurvedic ancestors at their period without microscopes is very much appreciable, from this information and at a very later stage was evolved, the concept of probiotics.

The twenty types of krimi mentioned are of the pathological ones, seen both externally and internally. One of the sites mentioned for the localization of krimi, is in the amasaya. The amasayagata krimi causes symptoms such as hrillasa, asyasravana, avipaka, aruchi, chardi, anaha etc. which resembles very much with the gastric conditions like dyspepsia which gives us an initial hint regarding the contribution of krimi in the same.
Even though the microorganisms like Helicobacter pylori were not known to our Ayurvedic ancestors, they evolved the theory of localization of krimi in amasaya and the resultant symptoms, resembling the dyspepsic condition. We have to think of incorporating the drugs with krimihara in action in the management of conditions like Amlapitta, resulting from krimi, along with the much needed sodhana therapy, so as to eradicate the organisms like H pylori.

The Acharyas Kashyapa, Harita, Madhavakara have described the etiological factors of Amlapitta, but the list of Kashyapa is minute. Madhavakara has given few etiological factors which are mainly causing the Pitta prakopa. Kashyapa has mentioned such etiological factors of Amlapitta, which are Kapha Prakopaka in nature – this shows his inclination towards the role of Kapha as the chief causative factor. The importance of amasaya as sthanas for both the Kapha and Pitta is also stressed on, by Kashyapa while explaining the Amlapitta. All scholars have mentioned viruddhahara as one of the causative factor of Amlapitta, which points to the importance of it in the pathology.

**TABLE 2 : ETIOLOGICAL FACTORS OF AM LAPIT TA**

<table>
<thead>
<tr>
<th>No.</th>
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**TABLE 3  Aharaja and Manasika Hetus**

<table>
<thead>
<tr>
<th>Aharaja Hetu</th>
<th>Manasika Hetu</th>
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<tbody>
<tr>
<td>Viruddha bhojana</td>
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### TABLE 4  The involved nidana and the affected dosha

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<th>Nidana</th>
<th>Dosha</th>
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<td>Guru ahara</td>
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<td>Ruksha ahara</td>
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### Table – 5  Nidana and the affected dosha – a comparison

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<th>Nidana</th>
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**BHEDAS OF AMLAPITTA**

Amlapitta is classified according to its associative dosha lakshanas by the ancient Acharyas. Kashyapa has given the classification of Amlapitta according to symptoms from the involved doshas. Madhavakara as well as Bhavamisra has also classified the Amlapitta into two types according to the location of dusti in the srotus or the main distribution of the symptoms, whether in the upper or lower part of the mahasrotus.¹⁵⁵
According to the vitiated Doshas

Acharya Kashyapa has mentioned three types.


Madhavakara has explained four types\textsuperscript{156}.

4. Shleshma pittaja

According to dusti sthana of the srotus

Madhavakara and Bhavamishra\textsuperscript{157} both have described mainly two types

1. Urdhavaga Amlapitta 2. Adhoga Amlapitta

This classification is mainly based on the presentation of the symptoms suggestive of the GI tract. This classification has its own importance in the management, as far as the clinical strategy is considered.

SAMPRAPTI

In Ayurveda, samprapthi is the gross of the various stages upto the manifestation of the disease, right from the commencement of the dosha dushti. It really explains the progressive development of the disease, including the etiological factors. Even the quality of the doshas involved in the aetiopathogenesis is also being discussed ie. because of this the five types of samprapthi being discussed, in this ancient medical science. By this methodology, it is possible to explain each and every aspect of the disease.

As long as the etiopathogenesis of GI diseases are concerned, Charaka has described, it elaborately\textsuperscript{158}. No other scholar has mentioned it so vividly. But Charaka has not mentioned Amlapitta, as separate disease entity. The samprapti
of grahani roga mentioned by Charaka is able to explain the pathogenesis of Amlapitta, eventhough the name not mentioned as such. Ayurveda gives the emphasis on the fabrication of the disease, mainly due to mandagni.

If we come across the samprapti of Grahani Roga, it seems that it is the progressive samprapti of different diseases. The samprapti of different diseases coincide at few stages, that being the reason behind the similarity between symptoms of a few diseases. The poorvaroopa of kushta resembles vathasonitha, opines Vaghbata, due to this similarity, the disease being different. There are so many conditions which resembles Amlapitta e.g. poorvarupa of gulma, udara, grahani, roopas of arsas, pittaja pandu, pittaja hridroga, Pittavrita Vatha etc. There are two main conditions from which we must differentiate the disease Amlapitta, those are vidagdhajirna and sama Pitta. These are the points supportive for its differential diagnosis.

Out of which sama Pitta is the stage of the Pitta, where ama is associated. As there is no specific dosha-dushya- sammurchana undergone at that level, it cannot be demonstrated as disease. But in Amlapitta, mainly the rasadhatu is involved as dushya and sthanasamsraya is in the amashaya.

**Samprapti Ghataka**

<table>
<thead>
<tr>
<th>Dosha</th>
<th>Pitta (Pachaka)</th>
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<tbody>
<tr>
<td></td>
<td>Vatha (Samana, Prana, Apana)</td>
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<tr>
<td></td>
<td>Kapha (Kledaka, Bodhaka)</td>
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<tr>
<td>Agni</td>
<td>Mandagni</td>
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<td>Vishamagni</td>
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<tr>
<td>Srotus</td>
<td>i. Annavaha ii. Rasavaha</td>
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<td>iii. Purishavaha iv. Raktavaha</td>
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</tbody>
</table>
Srotodushti - Sanga, Vimarga gamana, Atipravriti
Adhisthana - Amashaya, Grahani
Dushya - Rasa, Rakta
Vyakti - Amashaya, Grahani
Marga - Abhyantara (Kostha)
Swaroopa - Chirakari
Prabhava - Daruna

**Dosha**- In the pathophysiology, the involved sites of lesion and disturbance are observed to be Pachaka Pitta, Samana Vayu and Kledaka Kapha.

**Samana Vatha** – The seat mentioned for samana is very near to the agni and is the causative factor for grahana, pachana, vivechana and munchana, almost all the functions expected to be performed, by the GI tract. It controls all the secreting and motility functions of the two ashayas and helps in the action of digestive enzymes, assimilation of end products and their separation into various tissue elements and when vitiated, causes indigestion, diarrhoea and defective assimilation.

**Pachaka Pitta**- The amlaguna and dravaguna of Pachaka Pitta gets vitiated. Kledaka Kapha situated in amashaya is to counteract the withering action of Pachaka Pitta. Due to the imbalance in Pitta, the pachana kriya is also disturbed. This leads to the formation of vidagdhajeerna then to suktapaka and later to ama. The ama deprives the body of its nutrition and causes sadana. It is the root cause of all the diseases and is also the first stage or phase of dosha dushti in any disease.

When this ama is combined or impregnated with tridosha or saptadhatus or with malas, they are called sama and the diseases produced as
such are the sama rogas. This is so crucial in the management of any disease. For eg. in the management of autism in children, the ama is to be considered seriously before providing snehana or similar treatments.

TABLE 6  Symptoms of the Sama Doshas

<table>
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<tr>
<th>Sama Vatha</th>
<th>Sama Pitta</th>
<th>Sama Kapha</th>
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<tr>
<td>Vibandha</td>
<td>Durgandha</td>
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<td>Haritha syava</td>
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<td>Antrakujana</td>
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<td>Vedana</td>
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<td>Sopha</td>
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<td>Nisthoda</td>
<td>Amlika</td>
<td>Kantadeshe avatishtate</td>
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<tr>
<td>Adhmana</td>
<td>Kanta hritdahakara</td>
<td>Kshududgara vighatakara</td>
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These symptoms are very much useful for a clinician approaching a disease and tailoring the management. It is ideal to manage the ama initially and correct the jadaragni, then only rest of the treatment can be performed effectively. The components of the samprapthi are dealt here with in detail.

Agni – Sushruta explains that the prana, samana and apana while enduring at their original sites, maintain the agni. Charaka is explaining the various aspects and merits of agni along with grahani. Agni can be considered as normal or equal (samagni) if all the components controlling it such as Samana Vatha, Pachaka Pitta and Kledaka Kapha are on the normalcy. ie. samagni seems to be the sum total of these components of dosha. The vitiation of any one of these, leads to agni dushti and vice versa.
Amashaya and grahani are the sthana of jatharagni or infact, the Pachaka Pitta\textsuperscript{163,164}. Any type of disturbance of agni as mentioned above, starts the pathogenesis ie. i) vishamagni, ii) tikshnagni and iii) mandagni, which are said to be the resultant of the disturbances in the three doshas, respectively.

As the diseases of the mahasrotus are caused from agni dushti and all the three doshas affects the agni, the manifestation may be according to the dominance of the relevant dosha. Kashyapa Samhita is the first treatise, to explain the symptoms of Amlapitta, as per involvement of predominant associative dosha.

**Srotus** – Amlapitta involves the amashaya, grahani and the pakvashaya. Hence the annavaha and the purishavaha srotus seem to be mainly affected but the rasavaha srotus which receives the ama resultant from agnidushti first, gets surely involved. Regarding the types of srotodushti, the three types of disturbance of annavaha and purishavaha can be observed ie.i) Sanga ii) Atipravritti and iii) Vimarga gamana.

**Dushya** – While reviewing the symptoms of Amlapitta, it seems that the main dushya is rasa, as the initial dhatu to receive the ama along with the ahara rasa. The aetiological factors and symptoms are also suggestive of the rakta dushti. There is also a chance of affection of the other dhatus, if it is not intervened in a proper time or manner.

**Mala** – One of the important cause of the diseases in Ayurveda is vegavarodha i.e. suppression of natural urges. eg. micturition, defaecation, hunger etc. This affects the sphincteric competence and the related physiology adversely. Natural contractility and motility of the smooth muscles of the viscera, the GI tract and the macro and micro channels of the body are also affected. Once the
function of srotus gets affected, it leads to abnormality in them, leading to accumulation and later the vitiation of doshas.

The etiological factors such as abhojana, atibhojana, veganigraha, vyapats of panchakarma, seasonal variation etc. causes the vitiation of doshas altering the agni. Due to the resultant avipaka, even light and small quantity of food is not digested in a proper or expected manner. This ill digested food gets shuktatva, leading to ajirna.

Acharya Charaka opines that the ajirna forms the annavisha resulting in ama. This ama, when mixed with the aggravated Pitta, resulting from its own etiological factors, develops to the disease Amlapitta. Usually dravaguna and amlaguna of Pitta gets altered, causing vidagdha ajirna at the initial stage. If neglected, as suggested by Gananat sen, this will progress causing the inflammation and erosion of sleshmadhara kala of the amashaya, leading to the manifestation of diseases like Amlapitta and Parinamasoola.

Shadkriyakala

Shadkriya kala was explained by the Acharyas so that, the steps of the pathogenesis, be explained in a better manner. This also helps the physician to intervene in the pathology, at any level effectively. This is very much evident in many a clinical conditions. The concept has been much seriously dealt by Susrutha, while describing the condition of vrina. If a vrina has to be properly managed, it is highly essential to analyse each and every stage of the pathogenesis and must be intervened within no time. Similarly these steps give significant information, in the stage of each and every disease which is very much crucial to the physician and also the management seems different in each stage.
(1) SANChAYA

Anupa desha, varsha ritu, vidahi annapana, excessive amla and katu rasa, dusta anna sevana etc are the causative factors, resulting in the vridhi of Pitta. This stage is sanchaya where mainly, the Pitta is on the rise, at its own site. Pitta is the principal dosha which is necessarily vitiated but the associated Kapha and Vatha dosha are also disturbed, due to further nidanas. In this stage, the treatment principle is only the nidana parivarjana and also promotion of health.

(2) PRAKOPA

With the excessive and continous use of the etiological factors, Pitta is exaggerated more and more. So, sanchita Pitta becomes prakupita and this stage is called as prakopa. This stage includes the stages of vidagdha and shukta paka of anna leading to ajirna. Amlodgara, daha, trishna, avipaka, etc. are the resulting symptoms which is according to the main dosha. Due to involvement of Pitta and Kapha there may be amlodgara, pipasa, daha, annadvesha, utklesha and hrittasa. In this stage, treatment is nidana parivarjana, deepana and pachana.

(3) PRASARA

If the prakopavastha is not managed properly, the prasara stage commences. In this stage, ahara which is shukta in nature due to the agnimandya and ajirna becomes ama, circulates the whole body with the ahara rasa and through the dhamanies. So the rasa dhatu is also vitiated in this stage. This annavisha gets mixed with the Pitta dosha and circulates throughout the whole body. This is called as Sama Pitta which is of amlarasa and the stage called as the prasaravastha.

This stage differentiates ajirna like – aama, vidagdha and vishtabdha due to involvement of three doshas with visharupa anna. Also observed that
manovaha srotus gets vitiated due to various mental factors causing ajirna and Amlapitta. In this stage, the main symptoms are trishna, jvara and avipaka. The treatment desirable is the nidana parivarjana, ama pachana with tikta madhura rasa along with langhana.

(4) STHANASAMSHRAYA

This is the auxilliary stage and from here the specific pathogenesis of each disease commences as per the specificity of nidanas, quality of doshas by which they are vitiated and the site of alteration in the functioning of srotus. Mixture of annavisha and Pitta dosha is retained in annavaha srotus, mainly the amashaya vitiating the srotus. Amlarasa and dravaguna of the Pitta are increased further. According to Kashyapa, Kapha has an important role in Amlapitta. This vitiated kapha also is staying in the Pittadhara kala of the amasaya and hence Pittadhara kala of the amashaya is vitiated. The symptoms manifested in this stage may be same as of the Amlapitta but with less in severity. In this stage, the management needed mainly is sodhana karma with ama pachana and agni deepana.

This is the stage from where the vidagdhajirna can be separated from the Amlapitta. Vidagdhajirna is an acute stage occurring due to the causative factors, directly. The nidana is sapeksha, which means after the mithyaahara vihara leading to Pitta kopa leads to vidagdhajirna, but here the doshas have not established their affinity with any organ on tissue and only langhana or kala will cure the condition, but the symptoms may be produced again and again whenever, the mithyaahara and vihara is administered. But due to the repeated provocation, the doshas establish their affinity in amashaya and grahani ie. sthanasamshraya. After this stage even the laghu and alpa bhojana causes shuktatva and vidagdhata
to the annapana, leading to the production of Amlapitta and hence the relapse.

(5) **VYAKTI**

In the sthana sampraya stage, pittadhara kala or amasaya gets vitiated by the sama Pitta. After this stage, if the vitiated Pitta gets the appropriate alteration of the functioning of srotus, process gets commenced. Pitta eventhough drava is acting as agni, when it is not atidrava and not atiamla. This type of Pitta acts as tyakta drava in the form of agni, digesting whatever the food is taken. But in this condition, Pittadhara kala is vitiated by sama Pitta and so the Pachaka Pitta is produced, which has elevated degree of amlata and dravatha. So the normal action of Pitta is diminished, i.e. it acts as vytka drava, giving rise to avipaka and stagnation of food leading to fermentation. Due to this condition, all the symptoms and signs of Amlapitta are created. In this stage, the treatment advisable is the sodhana karma, preferably vamana, ama pachana without ushna and teekshna drugs and also agni deepana\textsuperscript{72}.

![Diagram 1](image)

\textit{Samanya Samprapthi of Amlapitta}
(6) BHEDA

Bhedavastha is the final stage of any disease. If Amlapitta is not managed in its vyaktavastha, it proceeds to the bheda stage as well. Due to the high degree of amlata and dravata of Pitta, mandagni results. More and more vitiated rasa dhatu also leads to aggravate the agnimandya. Hence annavisha is produced more, which vitiates the Pittadhara kala accordingly. So the symptoms and signs are produced in a severe manner and also lead to the manifestation of other diseases of GI tract such as parinamasoola and gulma. The ahara, even taken with the proper quality and quantity cannot be digested in this stage, ultimately leading to dhatukshaya and jvara, sopha, pandu etc. develops as the upadravas173. The disease goes into an incurable state with the complications.

From the management point of view, we must differentiate these stages and the diseases, which amends the line of treatment.

Kashyapa has described samprapti of Amlapitta in detail and it seems similar to samprapti of grahani Roga, described by Charaka174. Chakrapani commented so as to describe the whole itinerary of action175. Madhava mentioned the involvement of only one dosha ie. Pitta, but Kashyapa has given involvement of three doshas by the word “Vatadyaha,” with the dominance of Pitta.

Srikanthadatta has clarified that like the symptom of Kotha, the causative factors of Amlapitta are also Kapha and Pitta. Acharya advised that gourava, udgara and kampa are due to involvement of Kapha and Vatha respectively.176 Hence from the above discussion, it is clear that Kapha and Pitta i.e. Kledaka Kapha and Pachaka Pitta are the main doshas. But at the same time, we know that inverse relation of Pachaka Pitta and Samana Vayu, which always
work in association with agni. Hence, it can be concluded that there is involvement of tridosha, but with the dominancy of Pitta and Kapha in Amlapitta\textsuperscript{177}. In the pathogenesis of Amlapitta, it can be categorized as mainly Pitta on the foremost place, Kapha on subsequent place and the least involved is the Vatha, but the status can amend, with the chronicity of the condition. On becoming chronic, the condition from the Pitta Kapha stage becomes more and more Vatha Pittaja in nature. The condition Pittavrita Prana stay near to the symptoms of the Amlapitta. Hence it seems that the Amlapitta is a disease condition produced due to Pitta Kaphavrita Vatha, mainly Prana and Samana\textsuperscript{178,179,180}. In brief, some sort of avarana pathologies in the koshta results in the symptoms of Amlapitta. Like wise, with the samprapthi of parinamasoola, Madhava is explaining one of the reasons of the Vathakopa in the amasaya, as the avarana caused to the gati of Vatha, by the other two doshas ie. the Pitta and Kapha.\textsuperscript{181} It seems that, the obstruction to the gati of Vatha not only in the sakha, but also in the koshta, is resulting the Vatha kopa leading to diseases. Similar pathology is explained by Acharya Vaghbata, while describing the samprapthi of gulma\textsuperscript{182}. Kashyapa describes that this disease manifests mostly in the persons having the jihva laulya ie. lack of control over their dietary habits\textsuperscript{183}. Patients generally are aware of the etiological factor of the diseases, but due to greed or lack of control over their mind, they go on with consuming and this progress to the krichraasadhya stage and it manifests as the upadravas, like Parinama soola. This also indicates the relation between the food and the manifestation. The drastic changes in the food habits, is providing more gravity to this matter, in the occurrence of such diseases.
Madhavakara has explained two types of Amlapitta i.e. adhoga and urdhvaga. Doshika varieties are also mentioned by the various Acharyas and the differentiation in this type, is a complex task. This is also supported by Madhavakara by mentioning this as bhishak mohakara vyadhi or confusing to the physician. The adhoga type is very difficult to diagnose or differentiate, as it coincides with the Pitta atisara as well as Pitta grahani, in the presentation. Amlapitta is a disease with a direct relationship with the GI tract and mithya ahara and vihara are the chief causes. The etiological factors are further are classified into two groups. The first group includes those factors, which are responsible for agnimandya and the second group include the factors, those alters the dravata of Pitta and causes its pathological vridhi or variation in its quality.

Two additional components which aggravate the Pitta, anupa desha and the varsha ritu, have specifically been observed and mentioned by Kashyapa and Madhavakara respectively. Both these factors vitiate the Pitta as well as the jatharagni leading to agnimandya. As a result of above stated causes, any of the dosha vitiated leads to agnimandya. In this state of mandagni, whatsoever food material is consumed by an unwise person, become vidagdha and are converted to shukta form, This vidagdha and the vitiated Pitta later manifests in the form of the disease, Amlapitta.
Diagram 2
Detailed Samprapthi of Amlapitta
SANKHYA SAMPRAPTI

A. Two types according to the Gati
   1) Urdhvaga  2) Adhoga

B. Three types according to Kashyapa
   1) Vatolbana  2) Pittolbana
   3) Kapholbana

C. Four types according to Madhavakara
   1) Vatha  2) Vata-Kapha
   3) Kapha  4) Sleshma Pitta

VIDHI SAMPRAPTI

a) 1) Nija  2) Agantu
b) 1) Svatantra  2) Paratantra

According to the curability of the disease

Nava — Curable
Chirottha — Krichrasadhya or yapya
Purana — Asadhya

VIKALPA SAMPRAPTI

is the amsansha kalpana or categorisation of the aggravated dosha.

(1) Vata - Chala and rookhsa guna vriddhi
(2) Pitta - Drava, amla, usma, teekshna guna is increased
(3) Kapha - Guru guna vriddhi

PRADHANYA SAMPRAPTI

Independence or dependence of the aggravated dosha

(i) Pitta – Vridhatama  (ii) Kapha – Vridhatara
(iii) Vata - Vridha.
BALA AND KALA VISHESHA SAMPRAPTI

Bala samprapthi - cause of the disease, purvaroopa, bala of the roopa and the curative nature of the disease is acknowledged.

Kala samprapthi - By knowing the relation of the doshas with the ritukala, ahara, vihara etc. we can be acquainted with the chief caustive dosha.

Seasonal aggravation - In varsha and sarad ritu, the variation depending on the dosha.

Day / Night - Noon and mid night ie: the diurnal variation

Food time - Bhojanottara

Many conditions like gastro esophageal reflux disease, hyperacidity, gastritis, gastric atrophy, gastric ulcer, gastric carcinoma etc. can be included in its various stages under the condition of Amlapitta and managed accordingly.

PURVARUPA

Purvarupa is the manifestation observed, when the vitiated doshas gets localized in a pecuiliar organ, area or the srotus. It is interesting that some of the diseases like amavatha, visarpa, vidradhi, vatavyadhi etc. are mentioned without an appropriate poorvaroopa. Purvarupa or premonitory symptoms of Amlapitta is not mentioned, in any of the classical texts. But while going through the patient history, the symptoms of ajeerna are observed. In those diseases, in which the exact purvarupa is not mentioned, the avyakta form of roopa is usually considered, says Charaka. Chakrapani opines that, in such conditions, the atmaroopa of the involved doshas will be manifested, in the premature stage. This is mentioned in the diseases, Vatha vyadhi and kshata ksheena. The cardinal symptoms or roopa
mentioned at a milder level may be considered here, as the purvarupa of Amlapitta.

A few symptoms of Ajirna and especially the vidagdhajirna, may be appearing before the manifestation of the Amlapitta and is considered as the purvarupa, says Gananath Sen. Charaka has mentioned a few purvarupas of grahani like trishna, alasya, loss of bala, anna vidaha, and heaviness of body. These symptoms are considered as the purvarupa of grahani as well as of Amlapitta, due to the similarity in findings. In some of the cases, the poorvaroopas mentioned for chardi such as utklesa, praseka, aruchi etc, are also being noticed. Besides, the presentation varies due to the drastic variation, in the dietary habits.

**RUPA**

Rupa is manifested after the exact localization of the doshas has taken place and gives a clear indication of the doshas involved, in the corresponding pathology. Rupa is specific for each and every disease and helps the diagnosis of that particular condition. The analysis of the classical references related to Amlapitta will reveal that a big list of symptoms of Amlapitta can be prepared according to different sources. Rupa or lakshana are useful for the clinical knowledge of a disease as well as diagnosis. For having a uniform diagnosis of the disease allover, the diagnostic criteria have been framed as in ICD. The general symptoms of Amlapitta described by Madhavakara are as follows. Kashyapa has given a few symptoms in addition to the same.
Symptoms of Amlapitta have been described by Kashyapa, Madhavakara and Harita. Thereafter all the scholars have followed the same.

### Table 7  Symptoms of Amlapitta

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<th>Madhavakara</th>
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<td>Antrakujana</td>
</tr>
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<td>Hrit daha</td>
<td>Udara adhmana</td>
</tr>
<tr>
<td>Utklesha</td>
<td>Kanta daha</td>
<td>Vidbedha</td>
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<td>Klama</td>
<td>Hritshula</td>
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### Table 8  Symptoms of Amlapitta by various authors - comparison

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**Table 9  Symptoms of Ekadoshaja Amlapitta**

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**Table 10  Symptoms of Vathika Amlapitta - comparison**

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### Table 11  Symptoms of Kaphaja Amlapitta - comparison

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### Table 12  Vishishta Lakshana of Urdhvaga Amlapitta

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### Table 13 Vishishta lakshana of adhoga Amlapitta

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**Symptoms**

- **Anala sada**
- **Anga pitata**
- **Brama**
- **Daha**
- **Harsha**
- **Hrillasa**
- **Murcha**
- **Moha**
- **Trit**
- **Sweda**
- **Kotha**
Analysis of the symptoms of Amlapitta

(1) AMLA / TIKTA UDGARA

The commonest symptom of Amlapitta is amlodgara, tiktodgara or both which is due to vitiated Pitta dosha. Normal pitta is mentioned to have katu rasa. But when it becomes vidagdha, katu rasa is transformed to amla. The amla guna and dravaguna of Pitta are also increased resulting in agnimandhya and ajirna. The ahara becomes vidagdha in amashaya and the amla/tikta udgara is the result.

(2) HRIT - KANTHA DAHA

The subject with the Amlapitta feels burning sensation in the throat, heart region as well as the abdomen. Sometimes the whole body, palms and soles are also affected which depends on the extent of the Pitta kopa. The vitiated Pitta leads to agnimandhya, ajirna and ama. This is one of the distressing symptoms and seen in gastritis and also in GERD. In the initial stages, the Pitta vridhi is in koshta but in the later stages, it also happens in the sakha as well, which results in the burning sensation of the extremities.

(3) AVIPAKA

Mandagni and ajirna are the core causes of Amlapitta. Charaka explains that annavisha is produced from the resultant ajirna because of agnimandya. It is mixed with the Pitta dosha and creates the disease Amlapitta. Avipaka is due to the reduction in the performance of agni. There is a feeling that the food after intake is not actually digested or transformed which causes discomfort to the person and may affect the subsequent food intake as well.
(4) **KLAMA, ANGASADA AND GAURAVA**

It means fatigue, lassitude and heaviness in the body respectively. They are much related terms and the person gets tired without any unusual exercise or strain and is termed as klama. One will have a decreased energy level as well as disinterest in their routine activities. All these symptoms occur due to the rise or accumulation of the amadosha in the body, which affects all the functions. Many GI conditions like gastritis, liver diseases etc. causes the feeling of fatigue in the individual. It is one of the early presentations of jaundice, before icterus. These symptoms are also observed in conditions like hypothyroidism, wherealso the BMR seems affected. These symptoms point to accumulation of ama in the body.

(5) **UTKLESHA**

It can not be clearly defined and considered as the pravritti of doshas in the upward direction, either Vatha or Kapha is the contributor. Nausea is the word which can be compared here. Utklesha is generated due to amadosha and vitiated Kapha as well as the Vatha. Praseka can be considered as its poorvaroopa. These two symptoms altogether are explained in the poorvaroopa of chardi. Utklesha is considered as the sensation of vomit or retching. It is one of the most common symptom seen in dyspeptic patients and is really distressing as well.

(6) **ARUCHI**

Loss of taste of food and loss of interest of food intake, both are considered as aruchi, better known as anorexia. Sushruta believed that aruchi is a disease where one has absolute loss of interest in food due to shoka, krodha, bhaya like manasika bhavas and vitiated Vathadi doshas staying in jihva, hridaya and bhaktayana. This indicates the somatic as well as the psychic components for the
causation of aruchi. This condition is explained by Vaghbata along with the rajayakshma, as one of the upadravas of the same. This is an indicator of the association of the symptom ‘aruchi’ along with the chronic conditions.

(7) **GURUKOSHTATA**

Heaviness in abdomen is termed as guru koshtata. It is due to delayed gastric emptying as well as digestive mechanisms. Mandagni in Amlapitta causes avipaka and vitiation of the dosha peculiarly, ama or Kapha. This avipaka and resultant dosha dusti are responsible for producing this symptom, gurukoshtata.

(8) **VIDBHEDA**

While explaining ajeerna, Vaghbata has mentioned that the resultant presentation due to ajeerna is of two ways. One is the atipravritti or vidbheda and the other is the apravrithi or malarodha. In poorvaroopa of atisara also, malarodha is explained. So vidbheda is one of the conditions resulting from ajeerna. It is one of the symptoms of Amlapitta as well, explained by Acharya Kashyapa. The vegas regarding the malapravriti is increased, but the total quantity of pureesha may be normal. Vatha dusti and agnimandya are the main responsible factors for developing vidbheda. This is a more prominent feature of adhoga Amlapitta.

(9) **UDARADHMANA**

It is found in amashaya or in pachyamanashaya. The pain or discomfort may be due to the movement of Vatha in the koshta. The function of the Vatha is deranged by the altered doshas or the ama. The excessive production of Vatha is due to the resulting fermentation or shuktata. Fermentation occurs due to the avipaka or chirakala or late paka. Excessive production of Vatha leads to the distension of amashaya and pachyamanashaya. Excess admana leads to discomfort.
in breath as well leading to conditions like kshudra swasa. The sthanasamsraya of
doshas are in the amashaya, in the samprapthi of Swasa roga.

(10) SHIRORUK

Acharya Kashyapa has explained this symptom along with the
Amlapitta. Mainly it is associated with bhrama. Headache is produced due to
vitiated Pitta and Vatha dosha. Ajirna and amadosha, which produces vibandha,
are also responsible for the same. Most of the the patients of Amlapitta, have
constipation, which also creates shiroruk, due to the pratiloma gathi of Vatha.

Urdhva Amlapitta and Adhogata Amlapitta

1) In this type, the upper GI symptoms predominate clinically.
   Vamana/ utklesha are the most common presentation. The
   vomitus may be of various colours. Also the daha of uras, kanta
   regions are also associated.

2) Tikta and amla udgara are the main symptoms of urdhvaga
   Amlapitta, amla rasa being characteristic rasa of vidagdha Pitta.

3) Kapha Pittaja urdhvaga Amlapitta – Here kara-charana daha,
   avipaka, utklesha, aruchi, jwara, kandu and mandala are present.
   a. Urdhvaga Amlapitta tends to affect the annavaha srotus
      predominantly. Urdhvaga Amlapitta exhibits symptoms of
      Pittaja and Kaphaja Amlapitta. (aruchi, vami, kandu, daha)
   b. Adhoga Amlapitta exhibits also the symptoms of
      Purishavaha srotodushti. Here the Vatha dosha is also
      having a significant role. This disease if continued for some
      time, involves many other srotuses of body.
c. Marked similarity can be observed between adhoga Amlapitta and grahani (bhrama, daha, murchha, moha, and harsha) and is the point for differential diagnosis.

UPASHAYA – ANUPASHAYA

Those factors which relieves and aggravates the signs and symptoms of the disease are known as upasaya and anupasaya of the specific disease. It provides a diagnostic aid for the disease, which are the otherwise difficult to diagnose. It includes not only the oushada, but also ahara and vihara. Really these three factors are causing any sort of disease in the body and also is contributing to the relief or cure as well. It also provides an idea about the initial line of management to the physician. The idea we are getting while assessing the upasaya, has to be effectively incorporated for further treatment.

Vatika Snigdha as well as ushna is comfortable for the patient.

Paittika Madhura and seeta dravyas relieve the symptoms.

Kaphaja Ruksha and ushna dravya provides upashaya.

We are determining the dosha status of many a disease by using the appropriate gunas, in the form of oushada. In Vatika Amlapitta, we can use grithas as the medicine. While in Kaphaja, we can effectively use churnas like hinguvachadi or vaiswanara, eventhough rooksha and ushna, they may subside the symptoms of Amlapitta, due to the samana of Kapha. As the Amlapitta is having association of ama along with Pitta, initially the administration of gritha is noticed as anupasaya. Grithas are being given after getting rid of the ama stage. Aharas are also providing similar information, regarding the dosha status of the condition.
UPADRAVA

In the progressive stages, if the nidana sevana continues, samprapti spreads to other adhisthanas causing different diseases or symptoms, rather than pertaining to Amlapitta. The main samhitas explaining the upadravas of Amlapitta are the Kasyapa samhitha\textsuperscript{197} and the Sidhanta nidana.\textsuperscript{198}

### Table 14  Upadravas of Amlapitta

<table>
<thead>
<tr>
<th>Symptom</th>
<th>K</th>
<th>S</th>
<th>N</th>
<th>Symptom</th>
<th>K</th>
<th>S</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jwara</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Seetapitta</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Atisara</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Udarda</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Pandu</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Kandu</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Shula</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Mandala</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Shotha</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Vicharchika</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Bhrama</td>
<td>+</td>
<td>-</td>
<td></td>
<td>Pidaka</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Amasaya kshata</td>
<td>-</td>
<td>+</td>
<td></td>
<td>Grahani kshata</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

DHATUGATATVA OF AMLAPITTA

Doshas vitiated due to same nidana can produce different diseases as per their lodging, with special reference to ashaya and dushya.\textsuperscript{199} Though the pathology of Amlapitta seems simple, but the treatment given in some condition does not give relief, this exhibits another view to think about. Each and every dosha resides by the shelter of any of the related dhatu. But the vitiated doshas moves in different places, dhatus and leads to the vikruti of that particular dhatu, this condition is known as dhatugatatva or existence of roga in the dhatu. If doshas are following the dhatugatatva, then there should be difference in its treatment. In many a diseases, the chronicity leads to dhatugata condition, the
extent varies as per the pathogenesis of the disease. Even though each and every disease is having a dhatugata avastha, a few examples or the dhatugata stage of the major diseases are only explained in classics.

Dhatugata doshas are generally tiryakgata and are difficult to manage. Doshas might be sama or nirama, that is why we must think on the line of samadosha and tiryakgata doshas, in the management. They are chronic in nature and so the pachana or shamana should be done by observing the status of dosha, agnibala etc. Doshas should be brought into kostha and thereafter, they should be eliminated out of the body. “Dhatu vaishamya” is nothing, but the discordance of the corresponding dhatu. Dhatu samya is the ultimate aim of Ayurvedic treatment.

For a gata Vatha to occur, it needs two types or stages of nidana, the nidana for the Vatha kopa and the nidanas for the dhatukshaya. Such is the case of any disease affecting a peculiar dhatu.

Acharya Vagbhata in Ashtanga samgraha has described the dhatugatatva of Pitta and Kapha. Charaka has explained the Gatatva of Vatha. In dhatugata avastha, dosha disturbs the sthayi dhatu along with poshaka dhatu. Generally, it leads to kshaya condition of that peculiar dhatu. At such a condition, treatment should be based on that particular dhatu. The drug should be doshasamana as well as doing poshana of that dhatu.

Dr Sadashiva Sharma have described that, in the Samhitas, Dhatugata stage of four diseases have been described namely;

1) Jwara, 2) Kustha, 3) Vatavyadhi 4) Masoorika.

He explained that, the first three diseases are representatives of Dhatugatatva of Pitta, Kapha and Vatha diseases. He further explained that Jwara
should be taken as example for all the Pittolbana diseases, Kustha for Kapholbana and Vatavyadhi for Vatolbana diseases in the context of concept of dhatugata.

In Amlapitta, the rasagata symptoms observed are gourava, aruchi, chardi, praseka etc. The raktagata symptoms are hasta pada daha, hritdaha, manadala, pidaka, trishna etc. In the stage of Mamsagata, Mamsapaka can be observed which can be co-related with peptic ulcers, gastritis etc. The soola resultant from Amlapitta, is the most difficult to manage, says the great Gananath sen in his manuscript, the Sidhanta nidana.

VIKALPA SAMPRAPTHI

In the pathogenesis of Amlapitta, first there is production of suktapaka due to agni dushti and if it mixes with Pitta, leading to the disease. So whenever the patients complain about the symptoms of Amlapitta, a thorough examination as per Ayurvedic point of view, should be done. We must analyze by which of the properties, Pitta is vitiated and mixed with shuktapaka, as treatment differs in these situation. Mainly drava and amla guna is aggravated, in this disease. By observing the sign and symptoms of the patients, we can infer by which guna, Pitta is vitiated as described here.

Altered Guna - Lakshana

<table>
<thead>
<tr>
<th>Drava</th>
<th>Hrillasa, Asyasrava, Chardi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amla</td>
<td>Amlika, Amlasyata, Amlodgara, Amlarasayukta Chardi</td>
</tr>
<tr>
<td>Teekshna</td>
<td>Vedana, Vrina</td>
</tr>
<tr>
<td>Ushna</td>
<td>Ura-Udara-Kantha Daha, Jwarapratiti, Aaushnya, Sarvanga daha</td>
</tr>
<tr>
<td>Visra</td>
<td>Aasya daurgandhya, Loha-Ama Gandha, Utsahahani</td>
</tr>
<tr>
<td>Sara</td>
<td>Asamhata malapravritti</td>
</tr>
</tbody>
</table>
By analyzing these gunas, we can alter the line of management accordingly. If we are able to differentiate these properties, we can manage the patient easily and get enhanced results. Likewise, if these properties involve different dhatus then also we can change line of treatment and it should be according to progression of the pathogenesis.

**PRINCIPLES OF CHIKITSA**

Ayurveda has three basic categories of Chikitsa regarding the management of any disease. The combinations of these are used in the treatment of the condition, accordingly.

1) **Nidana Parivarjana**

Removal of all the alleviating factors of both ahara and vihara which are responsible for causation of the disease, is to be performed. It is to be advised to the patient to avoid such type of factors which are responsible for. Even in the days of Kashyapa, Acharya advises to avoid the food materials which are processed. While explaining the sadhyasadhyata, he adds that the diseases like Amlapitta becomes sadhya in those who are not greedy towards their food habits\(^2^0^2\).

The ancient people were not as careless as we people, as far as the food habits are concerned. Still the restrictions are mentioned by them, to be followed. That points towards the seriousness of dietary restrictions, in GI conditions like Amlapitta, in their management.

2) **Apakarshana**

Apakarshana or sodhana chikitsa is the unique methodology of Ayurveda as far as the approaches of all the medical systems are considered\(^2^0^3\). Sodhana is the management protocol for the prabhoota dosha in any condition.
While selecting the concerned sodhana, mainly 3 factors are to be considered. ie. the status of dosha, localization of the doshas or the sthanasamsraya and bala of the patient. In Amlapitta, eventhough it is a Pitta dominant disorder, the sthanasamsraya is in the amasaya, which is the Kaphasthana. The primary route of sodhana mentioned in vyadhi affecting the amasaya is the oordhwa sodhana, vamana. The sodhana which eliminates the doshas through the easiest route is always considered as the ideal one204.

Kashyapa has described vamana as the first line of treatment, followed by langhana and laghu bhojana.205 ie. Eventhough the Amlapitta is a Paittika disease, the most effective sodhana is vamana. Kashyapa opines that just like a tree with its trunk and branches are destroyed by striking the blow at its root. He says that, pecuiliarly for the chronic conditions; vamana is to be done definitely. He also gives another example for the relevancy of sodhana. If we are pouring pure mik in a vessel in which we have already kept takra and not properly cleaned, the milk eventhough fresh, is having a chance to become fermented. In fact, the samana drugs applied after doing vamana, will have the expected effect. The amasaya with the doshas associated with the ama is defective in absorbing the drugs eventhough samana drugs are being advised, without proper sodhana. Such a significance is there for sodhana, in the context.

As per the Chakradatta and Yogaratnakara, the second line of treatment is to perform mridu virechana.206, 207 Drugs used for vamana are lavanambu, sukhosna, dugdha, ikshurasana, madhudaka or tiktadravyas and for the virechana triphala, trayamana, katuki along with trivrit is mentioned.208 According to Bhavaprakasha, the decoction of patola, nimba, and madanaphala with saindhava lavana should be used for vamana in Amlapitta209.
Nishotha churna and amalaki are prescribed for the virechana. Avipathi choorna is one of the most commonly used yogas for virechana, which is mentioned by Vaghbata. The next regimen consists of administration of anuvasana followed by asthapana, in the chronically afflicted patients. The drugs such as tikta gritha, indukanta gritha, aragwadhadi gana gritha etc. are usually used for the purpose of anuvasana. Madhuyashtyadi taila and Ksheerabala taila are also used in this regard. After anuvasana, in chronic cases, nirooha is mentioned. Usually ksheeravasthi is the ideal one to be administered here. Instead of plain ksheera, ksheera kwathas with guduchyadi gana, tiktaka kwatha, indukanta kwatha, aragwadhadi gana is usually used. Plain gritha is observed to cause utklesha in these patients.

Yogaratnakara added raktamokshana as a tool if Amlapitta is not cured by both of the sodhana procedures, vamana and virechana. Vaghbata explains the diseases occurring due to raktadushti. Even though, Amlapitta is not mentioned as such, the symptoms resembling the disease are mentioned as katu and amla udgara may happen in one with the vitiation of raktha. Moreover in some of the patients with Amlapitta, symptoms of rakta dhatu dushti are also observed. So in such a condition, raktamoksha is having significant role, the technique being decided by considering all the related factors.

3) Prakritivighata

Prakritivighata refers to the use of drugs which suppress the elevated dosha, such treatment is also termed as the samana therapy. Kashyapa opines that after vamana, if the doshas persist, the physician should resort to the samana chikitsa with the aid of laghu bhojana, samana and pachana. It is forbidden by Acharyas to give drava aushadhi if the doshas are in condition of utklesha, because
if vamana is not done, the drava aushadhi will not be metabolized. When the
dosha utklesha has reduced with the help of ahara and vihara, physician can advise
ama pachana and bhedana drugs. Once the doshas have been expelled and amashaya
is devoid of vitiated doshas, the physician should direct the patient to take care
of the agni. The doshas lodged in the pakvashaya, is removed with the help of
sramsana drugs, which is selected as per the condition.

Mainly tikta rasa, laghu, snigdha guna, katu or madhura vipaka and
seeta veerya drugs are advocated by all the Acharyas, for Amlapitta. Use of samana
drugs opposite to quality of Pitta and to an extent Kapha, is beneficial for
Amlapitta.

We have to consider the associative dosha, while prescribing the
samana drug. We can use combinations like drakshadi kwatha in Vatha pitta
condition, guloochyadi gana in Kapha Pitta condition and tiktaka kwatha for
Pitta condition. Likewise we can select gritha yogas as well. Indukanta gritha is
ideal for Vatha Kapha condition, Mahatiktaka gritha for Vatha Pitta condition
and Aragwadhadi gritha for Pitta Kapha condition. The drug of any format is
usually selected according to the dosha. Choornas like Avipatti can be used both
as a samana as well as a sodhana drug.

The yogas can also be used in a different format, if the condition
demands. The gritha yogas can be administered in the form of Kwatha, if we
know that gritha must not be administered, but the combination is ideal for use216.
For eg. Mahatiktaka yoga when administered in the gritha form is much more
Vatha Pitta in action, while if it is being administered as kwatha, it is more Pitta
Kapha samana in action.
**Importance of tridoshas**

From the above said factors, it is very much clear that Samana Vatha, Pachaka Pitta and Kledaka Kapha is directly involved in the functioning of agni. So the variation or insult in any of the three doshas affect the process of digestion and is the causative factor of conditions like dyspepsia or Amlapitta. So in the management of Amlapitta also, all the doshas are to be considered, while performing the management.

On the other side it is also to be said that, the medicines mentioned for the management of other diseases are being used successively in cases of Amlapitta. For eg. Gandarvahasthadi kwatha which is indicated in mandagni and malarodha is causing relief to the patients with Amlapitta. The combination seems to create anulomya of Vatha which infact, improves the symptoms of the GI tract, eventhough it is Paittika in nature. Nayopaya kwatha mentioned for the swasa roga is also showing similar effects. The kwathas like sukumaram, saptasaram is also reported to have clinical efficacy in this regard.

Similarly, if the dominating symptom is avipaka, utklesha etc. the condition seems much more Kaphaja in distribution. Here we can safely use combinations like shaddharana, vaiswanara etc. ensuring that the patient is not having vridhi of Pitta. Even though, these are not effective in Amlapitta condition directly, the pachana property of the drugs help the condition to become better, if it is more Kaphaja in nature. So an ideal drug for Amlapitta is to have the properties of Kapha Pitta samana, Vathanulomya and Pachana.

**SADHYAASADHYATHA**

The prognosis of the disease, Amlapitta is not uniformly favorable as
per the classics. Madhavakara has pointed out that, in case the patient has been suffering from Amlapitta recently or is nava and is treated properly, the prognosis is excellent.\textsuperscript{220} Chronic cases may either improve a little or may be relieved completely, during the course of treatment. As soon as the patient deviates from the wholesome diet, the disease relapses. When the disease is of short duration, then it is sukhasadhya, it is yapya when chronic, kricchrasadhya when the duration of the disease is prolonged and cured with great obscurity and asadhya when the patient will be having different upadravas and symptoms of dhatu kshaya\textsuperscript{221}.

Kashyapa has indicated that in case of patients with Amlapitta gets complicated by jwara, pandu, soola, sopha, aruchi and bhrama with dhatu kshaya are incurable.\textsuperscript{222} Age of maximum occurrence is in the youvana avastha which is Pittakala. Sharad ritu is also Pitta prakopaka kala and the reasons also are many in the causation of this disease i.e. ahara, vihara, manasika bhavas etc. These are the factors capable to convert this disease as krichhrasadhya.

The life style of the people has changed drastically, since the age of the samhithas. The stressful life situations happening nowadays is having a very serious role to play, in the pathogenesis of conditions like Amlapitta. A psychological approach is to be enhanced in the present day management protocol after assessing the situation. Yoga therapy and pranayama can be incorporated here in an effective manner.

**PATHYA-APATHYA**

Any disorder involving the GI tract is having a direct and definite relationship with the dietary habits and hence the dietary regulations are a must. This has to be considered seriously while managing diseases like Amlapitta, where the dietary factors are working along with several other diseases, in the
manifestation. Even in the period of samhithas, Kashyapa has stressed on the
dietary restriction and its importance in the management of Amlapitta, with utmost
concern. In the recent times the human beings have lost the control over sticking
on to the healthy food habits. So besides enlisting the good or bad as per the diet,
strict patient education is to be done in this regard.

The following list of Pathyapathya are observed in the disease
Amlapitta as suggested by various Ayurvedic scholars.

**Ahara**

1) Anna Varga – Yava, godhuma, purana sali, mudgayusha, lajasaktu.
2) Saka Varga – Karavellaka, patola, kusmanda etc.
3) Phala Varga – Dadima, amalaki, kapittha etc.
4) Dugdha Varga – Godugdha
5) Mamsa Varga – Jangala, mamsarasa
6) Miscellaneous – Sarkara, madhu, narikelodaka.

**Vihara** Seetopachara, vishrama etc.

**APATHYA**

A) Ahara – Guru, vidahi, viruddha, ushna, katubhojana, kulatha, 
    rasona, navanna, tila, and fermented foods like bread, pickles
B) Lavana, amla, katurasa, madya, arishta, preservatives in food as 
    well as drugs
C) Adhyasana, samashana, vishamashana, virudhashana
D) Bakery items which are excess in salts, oil and maida and 
    processed
E) Vihara - Vegadharana, atapasevana, ayasa after food, divaswapna

F) Psychological - Chinta, krodha, shoka, bhaya.

G) Vishama nidra

The interesting thing observed in clinics is that, one which is apathy to a person is not creating much disturbance or harm in another one. So a general list of apathyas are difficult to frame for all the patients attending with conditions like Functional Dyspepsia and the advise varies from person to person. One fact explained by Vaghbata in udara chikitsa needs mention here ie. One must not exercise the apathy mentioned for that disease, also he must not use the pathya mentioned also, beyond a certain extend.