



Review Article

PATHOPHYSIOLOGICAL APPRAISAL OF *AMLAPITTA SAMPRAPTI* - A CONTEMPORARY OUTLOOK

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ABSTRACT

Aim: Critical understanding of the disease *Amlapitta* by *Samprapti Vighatana*. The man of this era is becoming more susceptible to series of lifestyle disorders with an unprecedented increase in incidences related to *Annavaha Srotas*. *Amlapitta* is one of the commonest *Annavaha Srotodushti Vyadhi* that closely resembles with hyperacidity in modern science. The altered lifestyle activities i.e., fried food, night shifts, stress, addictions are the major risk factors for *Amlapitta*. *Pitta* and *Kapha* are the main *Doshas* that get afflicted leading to the formation of *Ama* due to *Agnimandya* caused by *Mitya Ahara Vihara* leading to the stasis of the food in *Amashaya*. The vitiated *Dosha* associates with the *Ahara Rasa* to form *Vidagda Ahara*, it undergoes *Shuktata* and cause the *Lakshanas* of *Amlapitta*. Various *Nidanas* acting on the GIT leads to the partial digestion of the food in the stomach and its stasis invites the growth of the bacteria by inhibiting the action of HCL. The impact of hormones and nervous stimulation supports the mechanism leading to the clinical exhibition of symptoms. The critical understanding of the disease manifestation is the fundamental to assess the *Nidana* majorly driving to the pathogenesis. **Methodology:** Manual and electronic search of available Ayurveda classics and related articles regarding *Amlapitta*. **Discussion:** The analysis of *Samprapti* of *Ama Utpatti* and *Amlapitta* with the contemporary understanding.

INTRODUCTION

The ideologies of Ayurveda give the universal sagacity of life. The principle of evaluating the *Nidana Panchaka* is one among them mainly used to assess the *Roga Bala*. The considerateness of the *Nidana*, its relation in manifesting the *Vyadhi* is understood by the comprehensive appraisal of the *Samprapti*. The disease *Amlapitta* is one among the *Annavaha Srotodushti Vikara*. No direct reference of *Amlapitta* is available in *Brihatrayi* but *Kashyapa Samhita* and *Madhava Nidana* explains it as a separate entity. The word *Amlapitta* comprises of two words - *Amla* and *Pitta*, here *Pitta* is

the *Dosha* involved and *Amla* is the *Rasa* of the *Pitta*. This is a condition where the natural *Katu Rasa* of *Pitta* is replaced by *Amlata* due to *Vidagdhavasta*^[1]. In *Amlapitta* the quantity of *Pachaka Pitta* is increased, causing *Shuktata* to *Annarasa* residing in *Amashaya* forming *Ama* and causing *Amlapitta*^[2]. The process of digestion being impaired due to inhibitory action imposed by the nervous system and vasovagal reflex accelerating the secretions is leading to the increased acidic state of the food and stasis of the food due to the inhibition of the motor activity of the stomach producing the *Lakshana* of *Amlapitta*. This course of interpreting the disease is done by the *Samprapti Vighatana*, this stretches the complete understanding of the *Vyadhi*.

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Paryaya

The various *Paryayas* mentioned by the Acharyas indicate the various *Lakshana* and the process of manifestation of the disease.

- *Pittamla*^[3] - Indicating the turn of *Pitta* to *Amlarasa* in *Vidagdavasta*
- *Shuktata*^[4]- The *Vidagda Ahararasa* becomes *Shukta*
- *Amlaka*^[5]- Mentioned under *Pittaja Nanatmaja Vyadhi*
- *Hikkamla*^[6]
- *Dhumaka*^[7]- *Pittaja Nanatmaja Vyadhi*

- *Amlika*^[8]- *Lakshana* includes *Amlata*
- *Jaratpitta*^[9]- Mainly due to vitiation of *Jataragni*
- *Prameelaka*^[10]
- *Pitta Visuchika*^[10]

Nidana

The etiological factors of *Amlapitta* can be classified as

- *Aharaja*^[11]
- *Viharaja*^[12]
- *Manasika*^[13]
- *Agantuja*

Table 1: Aharaja, Viharaja, Manasika & Agantuja Nidana for Amlapitta

S.No.	Ahara Sambandhi	Vihara Sambandhi	Manasika Sambandhi	Agantuja Nidana
1.	<i>Viruddhahara</i>	<i>Bhukte Bhukte Atisnana</i>	<i>Laulya</i>	<i>Desha</i>
2.	<i>Dushtahara</i>	<i>Bhukte Bhukte avagaha</i>	<i>Chintha</i>	<i>Kala</i>
3.	<i>Vidahi Ahara</i>	<i>Bhukte Bhuktedivaswapna</i>	<i>Bhaya</i>	<i>Ritu</i>
4.	<i>Pitta Prakopi Ahara</i>	<i>Veghadharana</i>	<i>Shoka</i>	<i>Prakriti</i>
5.	<i>Vidagda Ahara</i>	<i>Shayyaprajagaraihi</i>	<i>Krodha</i>	
6.	<i>Adhyashana</i>			
7.	<i>Ajeerna Ashana</i>			
8.	<i>Pishtanna</i>			
9.	<i>Madhya Sevana</i>			
10.	<i>Guru Abhishyandhi Bhojana</i>			

Aharaja Nidana

The *Nidanas* mentioned by various Acharyas have a major role in manifesting the disease *Amlapitta*. In total all these are *Pitta Pradhana Tridoshakar Ahara*, leads to *Agnimandya* further to *Ajeerna* and then turning to be *Amlapitta*. The *Ama* produced by these *Nidana* can even penetrate at the *Dhatu* level and cause the *Lakshanas* involving various systems.

Viharaja Nidana

The *Viharas* mentioned vitiate the *Kapha Dosh* majorly along with *Pitta Dosh*. This leads to *Agnimandya* and manifest *Ama*, it attains *Shuktatva* due to prolonged stasis of the food. This directs the pathogenesis of the *Amlapitta*.

Manasika Nidana

The *Manasika Bhavas* are the major factors in leading to *Ama Utpatti* as mentioned by Acharya *Charaka*. These *Manasika Nidanas* mentioned vitiate the *Shareerika* and *Manasika Dosh* together. This has a direct impact on the sympathetic nervous stimulation and the process of digestion. The ingested food is not absorbed properly due to the *Ama* formation leading to *Ajeerna* and manifesting the *Lakshanas* of *Amlapitta*.

Any Nidana

Desha: Though it's explained as *Anupa Desha* is predominant of *Kapha dosha*, *Sadharana Desha* is predominant of *Tridosha* and *Jangala* is predominant of *Vata dosha*, the impact of it associates with the food one consumes regularly. The change of *Desha* is being explained as treatment for the *Amlapitta* i.e., if the person staying in *Jangala Desha* and has *Amlapitta* being unable to cure for longer duration then it's advised to shift from *Jangala* to *Anupa*.

Kala: The *Madyamavasta* of *Vaya*, *Madhyana* time of the day and at the midnight there is normally predominant *Pitta Dosh* in the body and environment, *Pitta Prakopaka Ahara Vihara* taken during this time will leads to *Amlapitta*.

Ritu: The person indulging in *Pittaja Nidana* during the *Grishma Ritu*, *Sharad Ritu* and in the *Ritu* where *Pitta Sanchaya* is taking then it invites *Pitta Prakopa* and leads to *Amlapitta*.

Prakriti: The *Pitta Prakriti* person has more tendency of being prone to *Amlapitta*.

Poorva Roopa

Amlapitta has no Purva Roopa mentioned in the classics as they are not evident and difficult to distinguish because of the minor fluctuations in the Dosh.

Roopa

The Lakshanas mentioned by Acharya Madhava^[12]

include

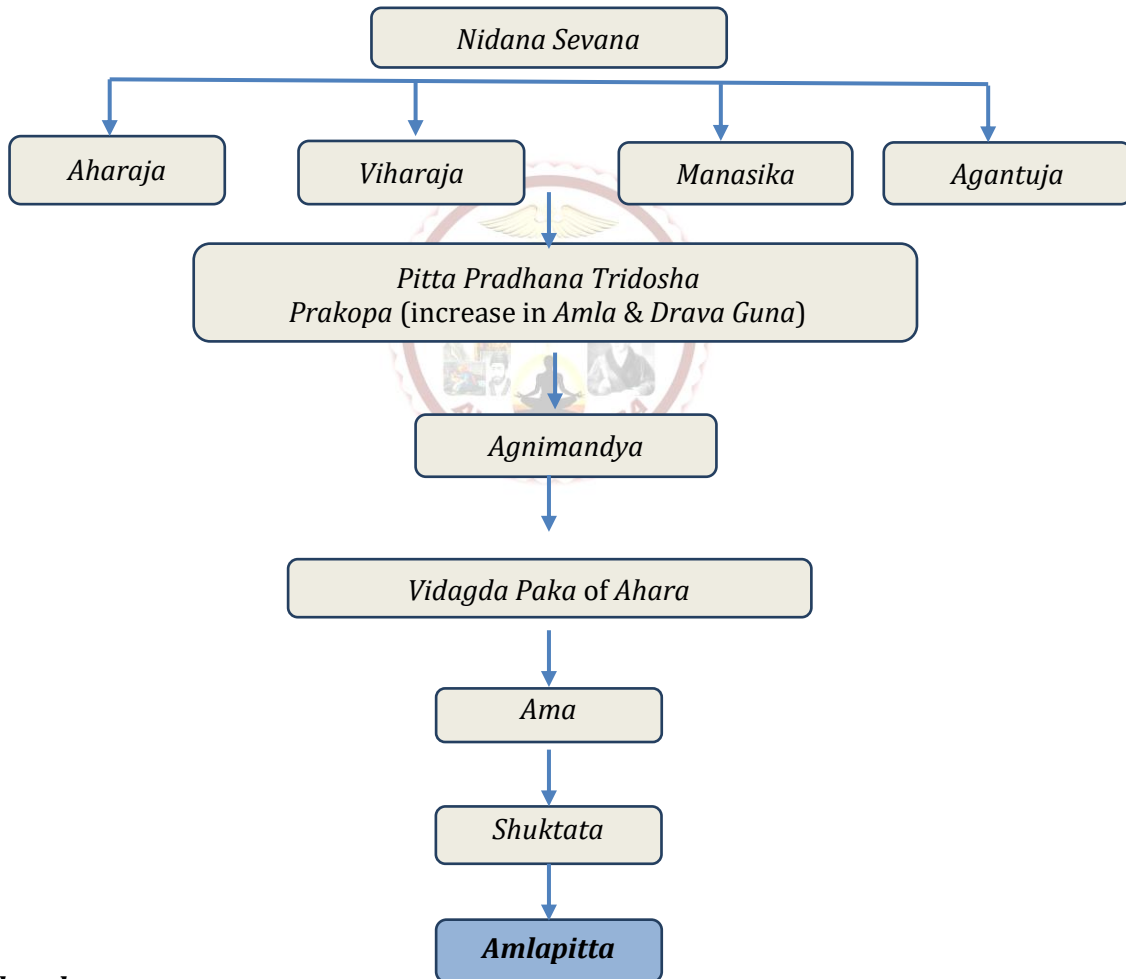
Bheda

- Avipaka
- Klama
- Utklesha
- Tiktodgara
- Gaurava
- Hrit-kanta Daha
- Aruchi

Table 2: Types of Amlapitta According to Different Acharyas

Acc. to Gati ^[14]	Acc. to Kashyapa ^[15]	Acc. to Madhava Nidana ^[16]
1. Urdwaga Amlapitta	1. Vataja Amlapitta	1. Vatadhikya Amlapitta
2. Adhoga Amlapitta	2. Pittaja Amlapitta	2. Kaphadhikya Amlapitta
	3. Kaphaja Amlapitta	3. Vata-Kaphadhikya Amlapitta
		4. Shleshma – Pittaja Amlapitta

Samprapti



Samprapti Ghataka

Dosha - Pachaka Pitta, Samana Vata, Kledaka Kapha

Dushya - Rasa

Agni - Jatharagni

Udbhava Sthana - Amashaya

Sanchara Sthana - Rasa

Adhishtana - Amashaya

Vyakta Sthana - Mukha, Kantha, Uraha

Srotas - Rasavaha, Annavaha

Srotodushti Prakara - Sanga, Vimargagamana

Rogamarga - Abhyantara

Sadhyasadhyata - Navottita - Sadhya

Purana – Yapy

DISCUSSION

Pathogenesis of the disease *Amlapitta* needs to be understood with the *Amshamsha Kalpa* or *Vikalpa Samprapti*. The *Pitta Prakopakara Ahara Vihara* increases the *Drava Guna* of the *Pitta* leading to *Agnimandya*. *Ahara Rasa* formation does not take place properly and attains *Vidagdaavasta*. This *Vidagda Ahara* does not undergo *Paka* leading to the formation of *Ama*, this stays in *Amashaya* for long time and produces *Shuktata*. This *Avasta* changes the *Prakruta Katu Rasa* of *Pitta* to *Amla* or *Tikta Rasa*. This manifests the *Lakshanas* like *Amlodgara/Tiktodgara, Hrit Kanta Daha, Aruchi* etc., other *Lakshanas*.

Concurring to the contemporary analysis, as the food enters the stomach it forms concentric circles in the orad portion. The newest food lying closest to the oesophageal opening and the oldest food lying nearest the outer wall of the stomach^[19]. As the person does the *Adyashana* (*Ajeerna Bhojana*/eating before the previous meal is digested) the newly consumed food stays in the centre and the old undigested food particles move to the periphery and this food undergoes *Shuktata* (become fermented/sour taste).

Normally, as the food stretches the stomach, a “vagovagal reflex” from the stomach to the brain stem and then back to the stomach reduces the tone in the muscular wall of the body of the stomach so that the wall bulges progressively outward, accommodating greater and greater quantities of food.

Due to this stretch of wall of stomach and closure of the pyloric antrum for additional few hours, the food in the stomach may accumulate for enhanced time period. As there is stasis of food in the stomach there will autonomic nervous stimulation which reduces the blood flow to the stomach and reduces the secretions in the stomach hindering the process of digestion.

This results in the stasis of the food for longer time than the usual as a result of this the defence occurring for the bacterial growth from the HCL secreted is hindered and there are chances of bacterial infection which will also lead to the formation of ulcers in the stomach and leading the symptoms similar to that of *Amlapitta*. The infection in turn will lead to inflammation which does the vasodilatation of local blood vessels with consequent excess local blood flow. This enhances the gastric secretions and further worsens the situation.

The stasis of the food also results in the impaired exchange of the micronutrients along with the water molecules. The movement of the molecules usually occurs from the intestinal compartment to the intravascular compartment then to the interstitial compartment then to intracellular compartment and

later it's been taken by the cells for the process of energy production and homeostasis maintenance.

This also disturbs the trilaminar flow of the blood as there is impaired movement of the molecules to the intravascular compartment. The normal exchange of fluids to the interstitial compartment occurs through the capillaries these results in the reduction of fluid and leads to the sluggish blood flow in the micro vessels. As the tissue metabolism continues despite the low flow, large amounts of acid, both carbonic acid and lactic acid, continue to empty into the local blood vessels and greatly increase the local acidity of the blood. This increases the tendency of the blood cells to stick to one another and makes difficult flow of blood through the microvasculature, giving rise to the term sludging of blood. This further leads it many other complications like anaemia, malabsorption syndrome etc.

Emotional stimuli frequently increase interdigestive gastric secretion^[20] (profoundly peptic and acidic) in exceptionally the same way as that in cephalic phase of gastric secretion excites secretion in response to emotional stimuli is believed to be one of the causative factors in developing the symptoms of *Amlapitta*.

Hence it becomes necessary to analyse a disease in all the angles through the light of the basics known, to derive at the conclusion of estimating the prognosis of the disease and to cure it.

CONCLUSION

Amlapitta is a disease affecting the larger population and its complaints are the most neglected ones. Minor changes in the process of digestion reflect the symptoms on other systems also. Hence the complete analysis of the *Nidana Panchaka* of the *Roga* especially the *Samprapti* and its *Vighatana* will help us in diagnosing, finding the main line of treatment required to alleviate the disease and to get the *Prakritavasta* of the *Dosha* and maintain the health of an individual. The contemporary understanding helps in providing the evidence of pathogenesis of the disease.

REFERENCES

1. Susruta, Susruta samhita with Nibandha Samgraha and Nyayachandrika commentaries, Ed. Vd. Y.T Acharya, Chaukhambha Orientalia, Varanasi, 2014 (Reprint), Sutra Sthana. 21/11, p101
2. Vruddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter *Amlapitta chikitsadhyaya*, p335
3. Yogaratnakara, Vaidyaprabha Hindi Commentary, Ed. Indradev Tripathi and Daya Shankar Tripathi,

- Chaukamba Krishnadas Academy, Varanasi, 1st edition 1998 (Reprint), Amlapitta Nidana Chikitsa Prakaranaam, p666
4. Vriddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter Amlapitta chikitsadhyaaya, p335
 5. Vriddha Vagbhata, Ashtanga Samgraha with Shashilekha Commentary, Ed. Shivaprasad Sharma, Chaukhambha Sanskrit Series, Varanasi, 2006 (Reprint), 20/16, p159
 6. Haritha Samhita with Nirmala Hindi commentary, Ed. Vaidya Jaymini Panday, Chaukamba Surabharti Prakashana, Varanasi, 1st edition 2010 (Reprint), 24th Chapter, p384
 7. Agnivesha, Charaka Samhita with Ayurveda Dipika Commentary, Ed. Acharya Y.T, Chaukhambha Orientalia, Varanasi, 2015 (Reprint), Sutra Sthana. 20/14, p114
 8. Susruta, Susruta samhita with Nibandha Samgraha and Nyayachandrika Commentaries, Ed. Vd. Y.T Acharya, Chaukhambha Orientalia, Varanasi, 2014 (Reprint), Sutra Sthana. 42/9, sub 2, p185
 9. Acharya Shrangadhara, Sharangadhara Samhita with Jiwanprada commentary, Ed. Shailaja Srivasthava, Chaukhambha Orientalia, Varanasi, 2003 (Reprint), Purva Khanda, 7/44, p81
 10. Vriddha Vagbhata, Ashtanga Samgraha with Shashilekha Commentary, Ed. Shivaprasad Sharma, Chaukhambha Sanskrit Series, Varanasi, 2006 (Reprint), Sutra Sthana, 13/2, p124
 11. Vriddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter Amlapitta chikitsadhyaaya, p335
 12. Madhavakara, Madhava Nidana with Madhukosha Commentary, Ed. Y Upadhyaya, Chaukhambha Sanskrit Sansthan, Varanasi, 1993 (Reprint), Amlapitta Nidana, 51/1, p170
 13. Yogaratnakara, Vaidyaprabha Hindi Commentary, Ed. Indradev Tripathi and Daya Shankar Tripathi, Chaukamba Krishnadas Academy, Varanasi, 1st edition 1998 (Reprint), Amlapitta Nidana Chikitsa Prakaranaam /1, p664
 14. Vriddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter Amlapitta chikitsadhyaaya, p335
 15. Vriddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter Amlapitta chikitsadhyaaya, p335
 16. Madhavakara, Madhava Nidana with Madhukosha Commentary, Ed. Y Upadhyaya, Chaukhambha Sanskrit Sansthan, Varanasi, 1993 (Reprint), Amlapitta Nidana, 51/3-4, p171
 17. Madhavakara, Madhava Nidana with Madhukosha Commentary, Ed. Y Upadhyaya, Chaukhambha Sanskrit Sansthan, Varanasi, 1993 (Reprint), Amlapitta Nidana, 51/8-12, p172
 18. Vriddha Jivaka, Kashyapa Samhita with Vidyotini Hindi Commentary, Ed. Sri Satyapaala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 4th edition 1994 (Reprint), Khila Sthana, 16th Chapter Amlapitta chikitsadhyaaya, p335
 19. Guyton & Hall, Textbook of medical Physiology, 11th ed, Elsevier Saunders, 2006, 63rd chapter Propulsion and mixing of food in the alimentary tract, p784
 20. Guyton & Hall, Textbook of medical Physiology, 11th ed, Elsevier Saunders, 2006, 64th chapter secretory functions of Alimentary tract, p799

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