

**CRITICAL ANALYSIS OF NIDANA AND SAMPRAPTHI OF AMAVATA WITH
SPECIAL REFERENCE TO AUTOIMMUNITY**

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**ABSTRACT**

The human body is a conglomeration of *dosha*, *dhatu* and *mala*. Even though *doshas* are having opposite *gunas* they do not harm the body when in equilibrium state and it maintains the integrity of *dushyas*. *Ama* is a unique concept in Ayurveda which can be considered as improperly digested food or accumulated metabolic waste which is not expelled out of the body has a tremendous capacity to vitiate the *dosha*, *dhatu* and *mala* and is capable of producing various diseases. *Amavata* is a disease entity where *ama* and *vata* plays important role in the *samprapthi* of disease and *viruddha ahara* and *chesta* are considered to be the main causative factors. Autoimmunity is the system of immune responses of an organism against its healthy cells and tissues. Any disease that results from such an aberrant immune response is termed an autoimmune disease.

Keywords: *Amavata*, *Ama*, *virudhahara*, *cheshta*, autoimmunity

INTRODUCTION

Amavata is a clinical entity first described by *Madhavakara* in the 7th century. In *Amavata*, *ama* (undigested food material), and *Vata* (one among regulatory functional factors of the body) are the two major pathological factors. *Ama* (undigested food material) is an improperly digested or accumulated metabolic waste product or abnormal *dosha* (regulatory functional factors of the body) which is a result of improper digestive fire¹. Due to poor digestive power, even light food does not get digested, and this undigested food becomes sour, and it works like poison, give rise to several diseases². *Ama* (undigested food material), is a unique concept in Ayurveda and is involved in the pathogenesis of many diseases. For a systemic understanding of a disease, it is important to know the pathological process right from the causative factors. *Amavata* is a disease that is named based on the pathological entities *ama* and *vata*. So, it is important to discuss the causative factors of both entities. *Ama* (undigested food material), is one of the main pathological elements involved in *Amavata*. The various etiological factors that are involved in the formation of *ama* (undigested food material), can be categorized under the following headings: *Aharaja hetu*³ *Abhojana* (fasting), *ajeernabhojana* (taking food in a state of indigestion), *atibhojana* (overeating), *vishamashana* (irregular eating), *asatmaya* (unwholesome), *guru* (heavy), *seetha* (cold), *atirooksha* (excessively ununctuous food), *dushta bhojana* (polluted food). *Viharaja hetu*, *Vega vidharana* (suppression of natural urges), *swapna viparyaya* (abnormal sleeping patterns) *atyambu pana* (drinking excess of water), *Dukka shayya* (lying down in improper postures) *Manasika hetu*. Even when the patient takes food in proper quantity, time etc; if afflicted with *chinta* (worry), *shoka* (grief), *bhaya* (fear), *krodha* (anger) leads to improper digestion.

Panchakarma apacharaja

Vireka vamana sneha vibhrama (improper administration of purgation, emetic and oleation therapy) *Anya hetu*, *Desa kala ritu vaishamya* (adverse habitat, time and season)

Properties of Ama⁴-

Avipakwa (improperly digested), *asamyuktham* (non-homogenous), *durgandham* (foul-smelling), *bahu pichila* (stickiness) and *sadanam sarva gatranam* are properties of *ama* (undigested food material).

Pathological symptoms *ama* (undigested food material)⁵-

Srotorodha (Blockade of body channels), *balabhramsha* (loss of strength), *gourava* (heaviness of body), *anila mudhata* (blockade in the function of vata), *alasya* (laziness), *apakthi* (indigestion), *nishtiva* (spitting continuously), *malasanga* (obstruction to urine and stool), *aruchi* (loss of appetite) and *klama* (weakness) are symptoms of undigested food.

Vata

The *doshas* (regulatory functional factors of the body), *pitta* (one among regulatory functional factors of the body) and *kapha* (one among regulatory functional factors of the body), *malas* (waste products) and *dhatu*s (major structural components of the body) are lame and don't have independent movement, they get mobilized by *vata* (one among regulatory functional factors of the body) just like clouds move only when pushed by *vata*⁶. All voluntary and involuntary functions are under the control of *vata* (one among regulatory functional factors of the body). Physiologically *vata* performs functions such as *utsaha* (enthusiasm), *uchvasa* (expiration) *nishvasa* (inspiration), *chesta* (motor activities of body) *vega pravartana* (regulation of natural urges) *samyak gati of dhatu*s (regulation of proper nourishment and functions of tissues) and *patava of akshas* (regulation of functions of sense organs)⁷. Etiological factors for *vata kopa* (aggravation of one among regulatory functional factors of the body)⁸ *Aharaja hetu* – *ruksha* (dry), *sheetha* (cold), *alpa* (less), *laghu* (light), *abhojana*. *Viharaja hetu*-*vyavaya* (excessive indulgence in sexual activities), *atiprajagara* (sleeplessness), *plavana* (swimming), *atyadwa* (excessive walking), *ati vyayama* (excessive physical activities), *dukha shayya asanat* (lying and sitting in improper postures), *vegadharana* (controlling natural urges), *abhigata* (trauma)

Manasika hetu –*chinta* (worry), *soka* (grief), *bhaya* (fright) and *krodha* (anger).

Anya hetu -*dosha asrik sravana* (expelling dosha or blood), *roga karshana* (person suffered from debilitating disease), *ama* (indigestion) and **vishama upachara** (improper treatment).

Atiyoga of *vamana* (emesis), *virechana* (purgation) and *rakthamoksha* (bloodletting) cause *vata prakopa*. All these *nidana* (causative factors) will lead to vitiation of *vata* (one among regulatory functional factors of the body) and its functions will get impaired.

Amavata

Amavata is a chronic disease of *madhyama roga marga* in which *ama* and *vata* are the main culprits involved. It is a condition where *stabdhata* (stiffness) of the body occurs due to lodging of vitiated *ama* and *vata* in the *trika sandhi*⁹.

Amavata nidana¹⁰

Viruddhahara sevana

Charaka in *Atreyabadrakapya* explains anything that causes aggravation of *doshas* but does not expel out from the body is called *virudha*. These are *dosha prakopaka* (aggravation of regulatory functional factors of the body) and *dhatushailthilyakaraka* (laxity of tissues). In Charaka sutra 26th chapter explains 18 types of *virudhahara*¹¹.

Viruddha cheshta

Virudha cheshtas are the activities that are having an adverse effect on the normal physiology of the body. If this gets disturbed this, in turn, vitiates *Agni* and leads to the production of *ama* and this *virudha cheshta* also causes vitiation of *vata* (in classics it is not mentioned clearly but we can consider the following as *virudha cheshtas* e.g. performing *vyayama* (exercise), *vyavaya* (sexual intercourse) after consuming *snigdha bhojana* (unctuous foods), taking food without *mala nutra tyaga* (suppression of urges), taking food without *kshut* (hunger), not taking food after *kshut* (hunger), *vegadharana* (suppression of urges), excessive intake of *khanda shakas* (tubers)¹².

Virudha vitiates *tridosha* and is capable of vitiating *rakthadi dhatius* (body tissues). It is *maha abhishyandi* and *srotorodhaka*.

Mandagni

Agni is responsible for strength, health and longevity. There are four types and *mandagni* is considered as a diminished function of *jataragni*, *dhatuavagni* and *bhutagni*. *Mandagni* is a predisposing factor for all disease¹³. If one consumes food without considering *agni* they are more prone to get the disease. The ingested food is digested by all these types of *agni* and among this *jadaragni* is very necessary as it also augments the functions of *bhutagni* and *dhatuavagni*. *Mandagni* is the most important factor of *Amavata*. If *Agni* is powerful even *virudhahara* cannot do any harm, so *agnimandhya* is the root cause for all diseases.

Nischalata

Lack of physical activity or sedentary lifestyle is the main cause for *agnimandhya* which leads to the formation and accumulation of *ama* in the body.

Vyayama after snigdha anna sevana

To maintain *agni* use of internal *sneha* is essential, however proper rest should be taken after intake of *snigdha ahara*, which is *guru*, and indulging in heavy works after immediately disturbs *agni* and leads to improper digestion. If sufficient rest is not taken there is a chance of *vata kopa*.

Bhavaprakasha, Vangasena, Gadanigraha and Yogaratnakara have also explained about *nidana* of *Amavata* same as *Madhavakara*. Only *Haritha* included extra *khandasaka*.

Samprapthi of *Amavata*: The process by which the *doshas* gets vitiated by etiological factors and how this vitiated *dosha* afflicts the *dooshyas* and results in the disease is called *samprapthi* (pathogenesis). As per *Ayurveda*, the diagnosis of the disease depends mainly on three factors *sammuthana vishesha* (specific etiological factor), *vikaras prakriti* (signs and symptoms) and *adhishtanantharani* (pathological process)¹⁴.

Due to improper food and activities *agni* (digestive fire) gets impaired and affects digestion and metabolism. This will result in *tridosha dushti* (vitiation of regulatory functional factors of the body) and *amot-patti* and this can be considered as *sanchaya avastha* (stage of accumulation) and if a person continues the *nidana seva* (exposure to causative factors) then *doshas* attain *prakopa avastha* (stage of aggravation).

In *Amavata* the *anyonya sammurchita dushta dosha* that is *ama* is dragged by *vyana vata* to *sleshma sthana* particularly *sandhi* through *dhamanies* can be considered as *prasara avastha* (migratory stage). The *ama* gets obstructed into channels and promotes further vitiation of *vata dosha* (one of the regulatory functional factors of the body). As the *ama* is having qualities like *atipichilatha* and *abhishyandha* gets *sthansamsraya* in *hridaya, trika sandhi*¹⁵. In this stage, the disease is not manifested completely. In *vyaktha avastha*, all the symptoms of *Amavata* are manifested. If the disease is not treated properly it reaches *bheda avastha* (stage of complications) *pravritha Amavata*.

Amavata and autoimmunity

The formation of *doshas* takes place in *koshta* and *doshas* (regulatory functional factors of the body) are having different qualities, some of these are opposed to each other. Normally when opposite qualities are brought together they fight and destroy the weaker ones, but in the case of *doshas* (regulatory functional factors of the body) even though they are having opposite qualities they do not harm the body when in an equilibrium state as these are *sahaja satmya* to the body this equilibrium of *doshas* (regulatory functional factors of the body) helps to maintain the body by preserving the integrity of *dushyas* and allowing them to perform their *karmas* properly. In *Amavata* the *ama* which is not having a direct correlation in modern science can be considered as toxins. It is produced in the body as a result of impaired *Agni* and acts as a foreign body Here it is important to analyze that when the *samprapthi* (pathogenesis) is that of *ama visha* the properties can be equated with *visha* in respect to its qualities as well as the clinical features it produces in the body. The *dosha, dushya* and *mala* which is affected by *ama* will result in abnormal functioning of this *dosha* and *dushyas* will show *lakshanas*. Here the equilibrium state of *doshas* (regulatory functional factors of the

body) is affected. *Ama* does not reveal itself directly physically but expresses itself through the effects it has on the body. *Amavata* can be considered an autoimmune disease. Autoimmunity is one of the central features of the immune system, which is the capacity to mount an inflammatory response to potentially harmful foreign materials while avoiding damage to self-tissues¹⁶. Autoimmune disease is an abnormal condition in which the body reacts against constituents of its tissues. The result may be simply hypersensitivity reaction and or autoimmune disease when the body begins attacking its healthy tissues. We can say it is a case of mistaken identity failing the immune system to differentiate between self and non-self¹⁷. This failure in differentiation is due to some extraneous environmental factors like some viral infections, exposure to some mutagenic agent's breakdown and failure of immune regulation and some aberration in the genes. Whatever the reason the result is an autoimmune disease that may involve a particular organ when it is called an organ-specific disease, Oxidative stress plays a role in autoimmune disease. Whereas recognition of self plays an important role in shaping the repertoires of immune receptors on both T and B cells and in clearing apoptotic and other tissue debris from sites throughout the body, the development of potentially harmful immune responses to self-antigens is, in general, prohibited¹⁸.

Autoimmunity, on the other hand, refers merely to the presence of antibodies or T lymphocytes that react with self-antigens and does not necessarily imply that the self-reactivity has pathogenic consequences. Autoimmunity is present in all individuals and increases with age; however, autoimmune disease occurs only in those individuals in whom the breakdown of one or more of the basic mechanisms regulating immune tolerance results in self-reactivity that can cause tissue damage.

Table 1: The mechanism of Autoimmunity in *Amavata* is better understood by *shat kriya kala*.

<i>Sanchaya</i>	Sensitization
<i>Prakopa</i>	Immune complex formation
<i>Sthanasamsraya</i>	Deposition of immune complex in various systems, inflammation, and tissue injury
<i>Vyaktha</i>	Clinical manifestation of disease
<i>Bheda</i>	Complications

CONCLUSION

Amavata is a special disease entity where *ama* and *vata* plays important role in the *samprapthi* (pathogenesis) of disease and *viruddha ahara* and *chesta* (mutual contradictory food and activities) are the main causative factors. Autoimmunity is the system of immune responses of an organism against its healthy cells and tissues. Any disease that results from such an aberrant immune response is termed an autoimmune disease. The immune system attacks the body's cells not accidentally, it is to defend against certain harmful metabolites in the body called *ama*. *Ama* hinders the physiological channels of the body it slows down the metabolism and toxins are produced and again leading to the production of *ama*.

REFERENCES

1. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana, Amavatanidana, Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbharrati Prakashan; 2010. p.186. Pp.412.
2. Vaidya Jadavji Trikamji , editor. Commentary Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Chikitsa Sthana, Grahanidoshachikitsitam, chapter 15, verse 42-44. Varanasi: Chaukhamba Prakasham; 2017. p. 517. Pp738.
3. Vaidya Jadavji Trikamji , editor. Commentary Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Chikitsa Sthana, Grahanidoshachikitsitam, chapter 15, verse 42-44. Varanasi: Chaukhamba Prakasham; 2017. p. 517. Pp738.
4. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana. Amavatanidana, Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbharrati Prakashan; 2010. p.186. Pp.412.
5. Pt. Hari Sadasiva Sastri Paradakara, editor. With the commentaries of Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Ashtanga hrdaya of Vagbhata, Doshopakramaniya, Chapter 13, verse 23-24, Varanasi: Chaukhamba Sanskrit Samsthan; 2012.p.216. Pp.956.
6. Pandit Parasurama Sasatri, Vidyasagar, editor. With the commentary of Adhamalla's Dipika and Kasirama's Gudhartha Dipika, Sarngadhara Samhita of Sarngadharacharya, Kaladhikanjanadhyayam, Chapter 5, Verse 25, Varanasi: Chaukhamba Orientalia; 2018. p.50. Pp.398.
7. Pt. Hari Sadasiva Sastri Paradakara, editor. With the commentaries of Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Ashtanga hrdaya of Vagbhata, Doshadivinjnaneeyam, Chapter 11, verse 1, Varanasi: Chaukhamba Sanskrit Samsthan; 2012.p.182. Pp.956.
8. Vaidya Jadavji Trikamji , editor. Commentary Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Chikitsa Sthana, Vatavyadhi chikitsitam, chapter 28, verse 15-18. Varanasi: Chaukhamba Prakasham; 2017. p. 617. Pp738.
9. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana. Amavatanidana , Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbharrati Prakashan; 2010. p.186. Pp.412.
10. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana. Amavatanidana , Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbharrati Prakashan; 2010. p.186. Pp.412.
11. Vaidya Jadavji Trikamji , editor. Commentry Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Sutra Sthana,Atreyabadrakapeeyamadhyaya, Chapter 26,verse 85. Varanasi: Chaukhamba Prakasham; 2017. p. 150. Pp738.
12. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana. Amavatanidana , Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbharrati Prakashan; 2010. p.186. Pp.412.
13. Vaidya Jadavji Trikamji , editor. Commentary Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Chikitsa Sthana, Grahanidosha chikitsitham, chapter 15, verse196-197. Varanasi: Chaukhambha Prakasham; 2017. p. 524.Pp738.
14. Vaidya Jadavji Trikamji , editor. Commentary Ayurveda Dipika of Chakrapanidatta of Charaka Samhitha of Charaka, Sutra Sthana; Trishodeeyam: Chapter 18, verse 46. Varanasi: Chaukhamba Prakasham;2017;p.108.
15. Tripathi Brahmananda editor. with Madhukosha commentary by Vijayaraksita & Srikantadatta of Madhavakara of Madhava Nidana, Amavatanidana ,

Chapter 25, verse 1-5, Varanasi: Chaukhamba Surbhara-
rati Prakashan; 2010. p.186. Pp.412.

16. Robbins S, Cotran R, Kumar V, Abbas A, Aster J. Pathologic basis of disease. 7th ed. Philadelphia, PA: Saunders Elsevier; 2015.p.145.1400.
 17. Mohan H, Damjanov I. Textbook of pathology. 7th ed. New Delhi [etc.]: Jaypee Brothers Medical Publishers; 2019. p.77.Pp.949.
 18. Fauci AS, Braunwald E, Kasper DL, Hauser SL, et al, Editors. Harrison's principles of internal medicine. 20th ed. New York: Mc Graw Hill, Medical;2001. p.2501. Pp.3528.
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