

Conceptual Study on Ama and Development of a Probable Diagnostic Tool for its Assessment

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Abstract


Ama is a chief cause for most of the Amasaya samudbava Vyadhi. Understanding the etiopathogenesis of Ama and its management is central to Ayurvedic diagnostics and treatment strategies. By knowing the level of presence of Ama in the body, it is easier to assess the degree of vitiation of dosha there by the stage of pathogenesis of a disease. So, developing a probable diagnostic tool will be helpful in Ayurvedic diagnostics & management. This conceptual study gives a light to better understanding the concept Ama and will provide a probable diagnostic tool for assessment in a human body. By tackling Ama at the early stage, we can also arrest the disease progression.

Material and Methods: *The present study aims to explore the concept of Ama and development of probable diagnostic tool for its assessment. The information collected from different Samhitas, various research articles & Internet.*

Discussion and Conclusion: *Understanding the concept of Ama & developing a probable diagnostic tool in Ayurveda will enhance the knowledge but also make the Ayurvedic diagnostics & treatment much easier. The present article summarizes the concept of Ama and development of probable diagnostic tool for its assessment.*

Keywords

Ama, Diagnostic tool, Amasaya samudbava

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1. Introduction

Āyurveda, the ancient system of medicine that originated in India since the beginning of human civilizations, offers a comprehensive approach to health and wellness. Āyurveda have its own plenty of concepts like Dosha, Dushya, Mala, Agni, Ama etc., in which Ama is one among the most important fundamental principle of Āyurveda in understanding psycho-somatic harmony and most importantly Pathophysiology of the diseases [1-5].

Ama is a Sanskrit word which has a number of synonyms, literally means undigested, uncooked, unripened or food materials. According to Ayurvedic classics Ama is the outcome of improper metabolism of food at Jatharāgni (macro level), Bhutāgni (micro level) and Dhatwāgni level, also in Mānasika level. Doṣa Prakopa & etiological factors also play an important role in manifestation of Ama. Its action is similar to that of toxic substances that is called as Amavisha. The word Amaya, synonym of Vyadhi reflects the importance of Ama in Vyadhi formation [4,5].

According to Acharya Vāgbhata [1] cause for all diseases is Mandagni, which in turn causes formation of Ama. The concept of Ama is closely related to the digestive fire or "Agni" in Ayurveda. When Agni is weak or imbalanced, it fails to properly break down and assimilate nutrients, leading to the formation of Ama [6,7].

According to Madhukosha commentary of Madhavanidana [2], if Kayagni fails to perform normal functions leads to accumulation of undigested food products inside Amasaya, which is the initial Rasadhātu is called Ama. This accumulation can block the vital channels, disrupt the flow of nutrients/energy (Prana), and create an environment conducive to various diseases and discomforts [8-10].

Some Acharya accept Ama as improperly digested food, some other Acharya consider accumulated Mala as Ama, Others say that it is the primary stage for the vitiation of Doṣa.

2. Materials and Methods

The concept of Ama has been reviewed from the classical texts of Āyurvēda. Based on this data, items have been generated for the development of probable diagnostic tool.

2.1. Nirukti

The word Ama is derived from the combination of "Am" dhatu with "Nich" pratyaya. The word Ama is derived from Ama Dhatu with the suffix 'A'. It means improper or partially digested matter.

2.2. Nidana

According to Caraka Samhita/Vimanastāna[3];

न च खलु केवलमतिमात्रमेवाहारराशिमामप्रदोषकरमच्छन्ति, अपि तु खलु

गुरुक्षशीतशुष्कद्विष्टविष्टम्भिविदाहयशुचिविरुद्धानामकालेचान्नपानानां उपसेवनं,

कामक्रोधलोभमोहेर्ष्याहीशोकमानोद्वेगभयोपतत्पमानसा वा यदन्नपानमुपयुज्यते, तदप्याममेव प्रदूषयति। (C.S/Vi/2/8)

Table 1. Etiologies According to Caraka Samhita/Vimānastāna.

S.No.	Etiologies (Āhara)
1	Intake of food in excess
2	Untimely intake of food and drinks
3	Intake of foods & drinks which are heavy
4	Intake of foods & drinks which are ununctuous
5	Intake of foods & drinks which are cold
6	Intake of foods & drinks which are dry
7	Intake of foods & drinks which are despicable
8	Intake of foods & drinks which result in constipation
9	Intake of foods & drinks which are irritants
10	Intake of foods & drinks which are unclean
11	Intake of foods & drinks which are mutually contradictory
Manasika Nidana	
1	Kama (Passion)
2	Krodha (Anger)
3	Lobha (Greed)
4	Moha (Confusion)
5	Ershya (Envy)
6	Hri (Bashfulness)
7	Shoka (Grief)
8	Manodwega (Anxiety)
9	Bhaya (Fear)

According to Charaka Samhita/Sutrastana [4];

सन्तर्पयति यः स्निग्धैर्मधुरैर्गुरुपिच्छिलैः |

नवान्नेर्नवमद्यैश्च मांसैश्चानूपवारिजैः || ३ ||

गोरसैर्गौडिकैश्चान्नेः पैष्टिकैश्चातिमात्रशः |

चेष्टाद्वेषी दिवास्वप्नशय्यासनसुखे रतः || ४ ||

रोगास्तस्योपजायन्ते सन्तर्पणनिमित्तजाः |

प्रमेहपिडकाकोठकण्डूपाण्ड्वामयज्वराः || ५ ||

कुष्ठान्यामप्रदोषाश्च (C.S/Su/23/1-6)

Table 2. Etiologies According to Charaka Samhita/Sutrastana

S.No.	Etiologies (Āhara)
1	Intake of foods/drinks which are unctuous
2	Intake of foods/drinks which are sweet
3	Intake of foods/drinks which are heavy
4	Intake of foods/drinks which are slimy
5	Intake of newly harvested rice

6	Intake of fresh wine
7	Intake of meat of marshy animals
8	Intake of meat of aquatic animals
9	Intake of cow's milk and its preparations
10	Intake of food preparations made of sugar candy and pastry
Vihara	
1	Averse to Physical Exertion
2	Indulges in sleep during daytime
3	Keeps lying on the bed all the time
4	Keeps sitting at ease all the time

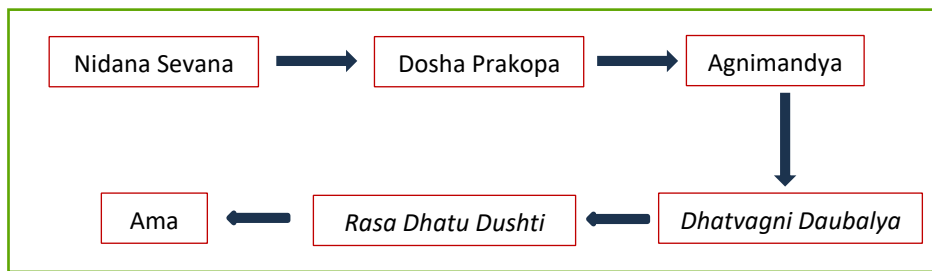


Figure 1. Formation of Ama

2.3. Ama Lakṣaṇa

According to Ashtāṅga Hrudaya/Sutrastana [5]

स्त्रोतरोधबलभ्रंशगौरवानिलमूढताः । आलस्यापक्तिनिष्ठीवमलसङ्गारुचिक्लमाः । लिङ्गं मलानां सामानां। (A.H/Su/13/23-24)

Table 3. Ama Lakṣaṇa According to Ashtāṅga Hrudaya/Sutrastana

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	स्त्रोतरोध	Obstructive Pathology occurring in Channels	SAT-C.159
2	बलभ्रंश	Diminution of Physical Strength	SAT-D.5483
3	गौरव	Heaviness of the body	SAT-D.8463
4	अनिलमूढताः	Inactivity of Anila	
5	आलस्य	Laziness/Lethargy	O-51
6	अपक्ति	Loss of Digestive Power	
7	निष्ठीव	More of Expectoration	
8	मलसङ्ग	Accumulation of Wastes	
9	अरुचि	Anorexia	EC-7
10	क्लम	Fatigue without Physical Exertion/Sense-Fatigue	ED-2.4

According to Caraka Samhita/Cikitsastana [6]

ग्रहणीमाश्रितं दोषं विदग्धाहारमूर्च्छितम् । सविष्टम्भप्रसेकार्तिविदाहारुचिगौरवैः आमलिङ्गान्वितं दृष्ट्वा ।
(C.S/Ci/15/73-74)

Table 4. Ama Lakṣaṇa According to Caraka Samhita/Cikitsastana

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	विष्टम्भ	Constipation	
2	प्रसेक	Salivation/Ptyalism/Sialorrhea	ACB-22
3	अर्ति	Pain	
4	विदाह	burning sensation/heart burn	ED-2.1
5	अरुचि	Anorexia	
6	गौरव	Heaviness	

According to Yogaratnakara [7]

आलस्य तन्द्रा हृदयाविशुद्धिः दोषप्रवृत्ताकुलमूत्रभावेः ।
गुरुदरत्वारुचिसुप्तताभिरामान्वितं व्याधिमुदाहरन्ति ॥ (Yogaratnakara)

Table 5. Ama Lakṣaṇa According to Yogaratnakaras

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	आलस्य	Laziness	
2	तन्द्रा	Drowsiness	
3	हृदयाविशुद्धिः	Feeling of uneasiness on chest	
4	दोषप्रवृत्ताकुल	Eagerness of excretion of doshas	
5	मूत्रभावेः	Decreased quantity of urine	
6	गुरुदरत्वम्	Heaviness in abdomen	
7	अरुचिः	Anorexia	
8	सुप्तताभिः	Numbness	

2.4. Sama Vata Lakṣaṇa

According to Arunadatta commentary of Ashtāṅga Hrudaya[8]

वायु सामो विबन्धाग्निसादस्तम्भान्त्रकूजनैः वेदनाशोधनिस्तोदै क्रमशोऽङ्गानि पीडयेत् ।
विचरेद्युगपच्चापि गृहणति कुपितो भृशम् । स्नेहाध्यैवृद्धिमायाति सूर्य मेघोदये निशि ॥
(A.H/Su/13/27-28- Arunadatta Commentary)

Table 6. Ama Lakṣaṇa According to Arunadatta commentary of Ashtāṅga Hrudaya

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	विबन्ध	Simple Constipation	AAC-12.4
2	अग्निसाद	Subdued Digestive Power	DB-1
3	आन्त्रकूजनैः	Different Abdominal Sounds	
4	वेदन	Pain/Sensation	SAT-D.7358
5	शोथ	edema/inflammation	EK-3
6	निस्तोद	pricking pain	
7	अङ्गपीडा	bodyache	SAT-D.167

According to Ashtāṅga Hrudaya/Nidānastāna^[9]

सर्वं च मारुतं सामं तन्द्रास्तैमित्य गौरवैः । स्निग्धत्वरोचकालस्य शैत्यशोफाग्निहानिभिः ।

कटुरुक्षाभिलाषेण तद्विधोपशयेन च । युक्तं विद्यान्निरामं तु तन्द्रादीनां विपर्ययात् ।

(A.H/Ni/16/29-30)

Table 7. Ama Lakṣaṇa According to Ashtāṅga Hrudaya/Nidānastāna

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	तन्द्रा	Drowsiness	ACB-15
2	स्तैमित्य	A sensation of dampness/feeling as if wrapped with wet clothes	SAT-D.8875
3	गौरवैः	Feeling of heaviness	
4	स्निग्धत्वम्	Unctuousness of the body	
5	अरोचक	Anorexia	EB-5
6	आलस्य	Lassitude	
7	शैत्य	Cold	
8	शोफ	Swelling	
9	अग्निहानि	Loss of digestive power	
10	कटुरुक्षाभिलाष	Desire for things of pungent, dry things	
11	कटुरुक्षा उपशयम्	Derive comfort of using pungent, dry things	

2.5. Sama Pitta Lakṣaṇa [8]

दुर्गन्धि हरितं श्यावं पित्तमम्लं घनं गुरु । अम्लीकाकण्ठदाहकरं विनिर्दिशेत् ॥

(A.H/Su/13/27-28/ARUNADATTA COMMENTARY)

Table 8. Sāma Pitta Lakṣaṇa According to Arunadatta commentary of Ashtāṅga Hrudaya

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	अम्लीका	Acid Eructation/Sour Eructation	ABB-7
2	कण्ठदाहकरं	Burning Sensation on Kanda	

2.6. Sama Kapha Lakṣaṇa [8]

आविलस्तन्तुलः स्थानः कण्ठ देशेऽवतिष्ठते । सामो बलासो दुर्गन्धिः क्षुद्गार विघातकृत् ।

(A.H/Su/13/27-28/Arunadatta Commentary)

Table 9. Sāma Pitta Lakṣaṇa According to Arunadatta commentary of Ashtāṅga Hrudaya

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	आविलस्तन्तुलः स्थानः कफ on कण्ठ	Coated Throat	ACB-12
2	दुर्गन्धिः कफ	Kapha having foul smell	
3	क्षुत् विघात	Reduced Hunger	
4	उद्गार विघात	Obstruct Eructations	

2.7. Sama Purisa Lakṣaṇa [10]

संसृष्टमेभिर्दोषैस्तु न्यस्तमस्ववसीदति । पुरीषं भृशदुर्गन्धि विच्छिन्न चामसंज्ञकम् ।

(S.S/U/40/17)

Table 10. Sāma Puriṣa Lakṣaṇa According to Susruta Samhita

S.No.	Lakṣaṇa	Interpretation in English	Sat Code/ Morbidity Code
1	पुरीषं अवसीदति	Faeces sinks when put on water	
2	दुर्गन्धिं पुरीषं	Faeces emits very foul smell	
3	विच्छिन्न पुरीषं	Slimy, Broken Faeces	

3. Results and Discussion

Literary research was carried out to derive the concept of Ama. It is the improperly processed first Dhatu (Rasa) formed due to Agnimandya. It is the root cause for most of the Amasaya Samuthbhava Vyadhi. So, assessing the Ama in one body can be very helpful for assessing the disease as well as in management. Developing a probable diagnostic tool will be much easier for its easy assessment. For the development of probable diagnostic tool for the assessment of Ama, knowledge about Ama, steps for development of diagnostic tool and its validation are necessary. Since the item generation being the main step for the development of diagnostic tool, all the signs and symptoms from all available Samhitas collected for content pooling. These will be criteria of the intended diagnostic tool. By avoiding repeating Lakṣaṇa, all the signs and symptoms mentioned in different Samhita are compiled. Thus, items for development of probable diagnostic tool are generated.

As it is a review article, checking the validity and reliability of this Ama diagnostic tool has not been done. For the further level, questionnaires can be formed from the generated items that can be given to experienced Ayurvedic faculties for

reviewing in all aspects. After preliminary pilot testing the validity must be assessed and then reliability analyzed. And finally, it can be used for Ama assessment in different diseases. The following are the generated items for the Ama diagnostic tool.

3.1. Generated Items

Table 11. Generated items for Ama Diagnostic Tool Development

S.No.	Lakṣana	Interpretation in English	Sat Code/ Morbidity Code
1	स्रोतरोध	Obstructive Pathology occurring in Channels	SAT-C.159
2	बलभ्रंश	Diminution of Physical Strength	SAT-D.5483
3	गौरव	Heaviness of the body	SAT-D.8463
4	अनिल मूढता	Inactivity of Vata	
5	आलस्य	Laziness/Lethargy	O-51
6	अपक्ति	Indigestion	ACB-2
7	मलसंग	Accumulation of Wastes	
8	अरुचि	Anorexia	EC-7
9	कलम	Fatigue without Physical Exertion/Sense-Fatigue	ED-2.4
10	प्रसेक	Salivation/Ptyalism/Sialorrhea	ACB-22
11	बहुपिच्छिलम् मलं	Faeces having excess unctuousness	
12	हृदयाविशुधि	Discomfort in heart	
13	दोषप्रवृत्ताकुला	Distress	
14	गुरुदरत्वम्	Heaviness in belly	
15	सुप्तता	Inactivity	
16	आन्त्रकूजन	Increased bowel sounds	
17	शोथ	Edema/Inflammation	EK-3
18	अंगपीडा	Bodyache	SAT-D.167
19	स्तैमित्य	Feeling of being covered by wet cloth	ACB-27
20	स्निग्धत्व	Unctuousness of the body	
21	शैत्य	Feeling of coldness	
22	कटु अभिलाष	Affinity to pungent taste	ACB-5
23	रूक्ष अभिलाष	Desire for things of dry	
24	अम्लीका	Acid Eructation/Sour Eructation	ABB-7
	Lakṣana related to Burning Sensation		
25	a) विदाह	Burning Sensation/Heart Burn	ED-2.1
	b) कंठदाहकर	Burning Sensation in Throat	
	Lakṣana related to Kapha		
26	a) आविलस्तन्तुलः स्थ्यान कफ (on Kanda)	Coated Throat	ACB-12

	b) दुर्गन्धि कफ	Foul Smell Kapha	
27	उद्गारविघात	Obstruct Eructations	
28	Puriṣa Lakṣana		
	a) पुरीषं अवसीदति	Faeces Sink when put on water	
	b) दुर्गन्धि पुरीषं	Faeces emits very foul smell	
	c) विच्छिन्न पुरीषं	Faeces are broken	

4. Conclusion

Ama is the toxic intermediary products of digestion and metabolism. It is the central topic when it comes to the pathogenesis of most of the Amasaya Samutbhava Vyadhi. There are lot of concepts regarding Ama described in different Samhita. Since they are scattered off over areas, physicians find difficulty to utilize those data for the diagnosis, prognosis and management. By making all Lakṣana into well-organized manner and programmed into a tool model, everyone can be utilized in a uniform way all over the world. So that we can upgrade the Ayur-diagnostics to a higher level. This topic awakens the possibilities of converting Sūtra mentioned in Ayurveda into clinical forms that will open opportunities in Ayurvedic diagnostics.

References

1. K.R.S. Murthy. Astanga hrdayam Nidanastana, Chapter 12 /1. Varanasi: Chowkhamba Krishnadas Academy; [publication year not provided].
2. Vijayarakhita & Srikanthadatta Jadwoji Trimuji Acharya Nirnaya. Madhava Nidana - Madhavakara Madhukosa commentary 25/1-5. Varanasi: [Publisher not provided]; [publication year not provided].
3. R.K. Sharma. Caraka Samhita Vimanastana, Vol 2, Chapter 2/8. Varanasi: Bhagwan Dash Chowkhamba Sanskrit Series; 2016.
4. R.K. Sharma & B. Dash. Caraka Samhita Sutrastana, Vol 1, Chapter 23/1-6. Varanasi: Chowkhamba Sanskrit Series; Reprint 2014.
5. K.R. Srikantha Murthy. Astanga hrdayam Sutrastana Chapter 13 /23-24. Varanasi: Chowkhamba Krishnadas Academy; 2013.
6. R.K. Sharma & B. Dash. Caraka Samhita Cikitsastana, Vol 4, Chapter 15/73-74. Varanasi: Chowkhamba Sanskrit Series; Reprint 2015.
7. Vaidya Lakshmipati Sastri. Yogaratnakara – Vidyotini Hindi Commentary. Poorvardhagatha-Page no:19. Varanasi: Chaukhambha Prakashan; [publication year not provided].
8. A. M. Kunte and K. R. Sastri Navare. Astanga hrdayam Sutrastana Arunadatta commentary 13th chapter/27-28. Varanasi: Chaukhambha Orientalia; [publication year not provided].
9. K.R. S. Murthy. Astanga hrdayam Nidanastana 16th chapter/29-30. Varanasi: Chowkhamba Krishnadas Academy; Reprint 2016.
10. K.R. S. Murthy. Susruta Samhita Vol 3, Uttara Sthāna Chapter 50/40/17. Varanasi: Chaukhamba Orientalis; Fourth Edition 2010.

