

CLINICAL ASPECTS OF AMA

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ABSTRACT

The description of metabolic processes, operating at various levels inside the body, has been essentially covered in Ayurveda under thirteen types of *agni* and their functions at different levels, which are often compared with the enzymes and biochemical which take part in biological and/or biophysical transformations and reactions. When these *agni*, at different levels, get disordered they lead to the production of certain undesired elements or byproducts in the system, which are called as 'Ama' in Ayurveda and are considered as very important morbid factor responsible for causation of a variety of diseases and playing key role in manifestation of the most of the diseases. Present article is an attempt to explore clinical aspects of *Ama*, to show its clinical importance.

Keywords: *Ama*, Clinical Aspects of *Ama*, *Agni*,

INTRODUCTION

In Ayurveda, diseases are treated not only by their names but according to its principles. *dosha*, *dushya*, *srotas*, *srotodushti lakshanas*, *Ama*, *oja* etc. are also taken into consideration before planning management of a disease. *Agni* plays a crucial role in digestion of food and indirectly in maintaining physical and mental health. *Agni* and *pitta* (*pachaka pitta*) both have *tejas mahabhoota* in their composition, so they are quite common in properties. *Pachaka pitta* (one out of 5 types of *pitta*) stays in between *amashaya* and *pakwashaya* and with help of *kledaka kapha* and *samana vayu* helps in digestion of ingested food. It also helps to divide *ahara rasa* into *dosha – rasa – rakta – mutra – purisha*¹. This whole phenomenon of *agni* occurs in *jathar* part of body, therefore it is called *jatharagni*. There are 13 types of *agni*, i.e. one *jatharagni*, seven *dhatwagni* and five *bhutagni*. Out of these 13 *agnis*, *jatharagni* is most important and it regulates and promotes

the functions of other *agnis*. *Samavastha* (balanced stage) of *jatharagni* indicates good health and its imbalance indicates occurrence of various diseases. On the basis of intensity, this *jatharagni* is considered to be of 4 types, i.e. *sama* (when *tridoshas* are in balanced state), *vishama* (when *vata* aggravated), *tikshna* (when *pitta* is aggravated) and *manda* (when *kapha* is aggravated). Due to *mandagni*, the ingested food article remains undigested or semi digested, due to which *Ama* is produced, which is responsible for aggravation of all *tridoshas*.

Tridoshas play major role in physiopathology of human body. Presence of *Ama* alters the physiology, pathology as well as treatment plan. Since majority of diseases now a day are caused due to *Ama*, it is really needed to make sincere effort to understand the clinical aspects of *Ama* carefully so that it will be really helpful to prevent and treat non-communicable diseases in the community.

Aim: To study clinical aspects of *Ama*.

MATERIAL & METHOD

Since this is a literary research based on a review of Ayurvedic texts, materials related to *Ama* concept in the pathogenesis of diseases have been collected. The main Ayurvedic texts used in this study are *Charaka Samhita*, *Sushruta Samhita*, *Astanga Hridaya*, *Madhava Nidana* and available commentaries on these. Modern texts have also been referred and various websites & reports have been searched to collect information on the relevant topics.

Nirukti of Ama (Derivation)

1. The term *Ama* is derived from the root “Am” with the suffix “ninj” which mean, ‘the substance which undergoes digestion and associated changes is *Ama*’²
2. The unprocessed or undigested food particle is *Ama*³.
3. In which substances produces pain or creates pressure on *Sratomukha* and accumulates on the *Srotomukha* is called *Ama*.

Definition of Ama

1. Due to hypo-functioning of *Ushma* the first *Dhatu* ‘*Rasa*’ is not properly digested, instead the *Anna rasa* undergoes fermentation being retained in the *Amashaya*. This *Rasa* is called as *Ama*.⁴

Ushmane – Dalhana - Dhatwagni, Dhatwagnibhih apakat Ama ityuchyate Adya dhatu – Hemadree – Rasa which is not capable of executing its function and also not capable of transforming into *Rakta*.
Dusta Amashaya – Hemadree – “Amasayo yatra Ama Anna tisthati”
The name of this, *Ashaya*” itself

suggests that the digestion of food is not completed here.

2. The *Adya Ahara Dhatu* is known as *Ama*, which is undigested and formed due to hypo functioning of *Agni*, in *Amasaya*.⁵
3. The matter which has not undergone *Vipaka*, leadings to *Durgandha* (bad smelling), which is large in quantity, which is *Picchila* (Sticky) and which leads to *Gatrasadana* called as *Ama*.⁶
4. According to *Bhava prakasha & Vijaya rakshita*, the food residue which is not digested due to hypo functioning of *Agni* is known as *Ama* and it is the root cause of all the disease⁷.
5. “*Apakwa anna rasa iti Ama*”. If *Anna-rasa* is not properly digested and formed then the outcome of such a digestion is known as *Ama*.
6. The first phase of *Dosha dusti* is *Ama*.
7. The accumulation of *Mala* in the body as *Ama*⁸.

OTHER MEANING OF AMA⁹

So in short we can be said: the deficient function of *Agni* produces *Ama* which comprises a group of toxic substance and not capable of nourishing the body but vitiated to the *Doshas* and cause disease. Many different meaning related to *Ama* are available in various Ayurvedic texts as

- 1) Incomplete developed *Garbha*
- 2) Unprocessed *Sneha*
- 3) *Amavastha* -first stage of *Vranashotha*
- 4) *SaAma-niram purish*
- 5) *Amavastha* as *rogavishesha*

*Ama Samprapti*¹⁰

Due to indulge in the causative factors of producing *Ama* and presence of *mandagni*, ingested food does not get

properly digested, which results in *apakwa Rasa dhatu* or *Ama*. This *Ama* circulates whole body through body channels and comes in the contact of different *dhatwagnis*, due to that

dhatwagnis get diminished and more *Ama* produces. It results in blockage in different *srotas* and various diseases are produced.

Etiological factors of Ama¹¹

Table no.1 Acharya Charaka described two types of causative factors for Ama production:

<i>Aharaj Nidan</i>	<i>Manasik Nidan</i>
<ul style="list-style-type: none"> • Excessive food intake • Heavy food intake • Dry food intake • Cold food intake • <i>Vishtambhi</i> food intake • <i>Vidahi</i> food intake • <i>Viruddha</i> food intake 	<ul style="list-style-type: none"> • <i>Kaam</i> • <i>Krodha</i> • <i>Lobha</i> • <i>Moha</i> • <i>Irshya</i> • <i>Bhaya</i> • <i>Chinta</i> • <i>Dukha</i>

Due to above causes, even food taken in appropriate amount or manner, does not digest properly and forms *Ama*. Along with the weakness of *jathragni*, weakness of *dhatwagni* and *bhutagni* also form *Ama* which enters different *dhatu*s and *malas* and

manifests diseases. In this way *Ama* forms *sama-dosha*, *sama-dushya* and *sama-mala* when it combines with *dosha*, *dushya* and *Mala*. Here *sama* means along with *Ama* and *nirama* means free from *Ama*.

Table no .2 General clinical features caused by Ama¹²

<i>Vishtabdha</i>	Obstruction of faces
<i>Praseka</i>	Increased salivation from mouth
<i>Arati</i>	Pain in abdomen
<i>Daha</i>	Burning sensation
<i>Aruchi</i>	Loss of appetite or anorexia
<i>Gaurava</i>	Heaviness

Table no.3 Clinical features of Sama and Nirama Dosha, Dushya and Mala¹³

<i>Dosha</i>	<i>Sama Lakshana</i>	<i>Nirama Lakshana</i>
<i>Vata</i>	<ul style="list-style-type: none"> • <i>Vibandha</i> (constipation) • Weakness of <i>jatharagni</i> • <i>Tandra</i> (drowsiness) • <i>Antra kunjjan</i> (bowel sounds) • Pain in <i>Kati, Parshva</i> etc. • <i>Shotha</i> (inflammation) • <i>Toda</i> (pricking pain) • Worsening the symptoms of <i>Ama</i> due to <i>snehana</i> etc. therapies • Symptoms get aggravated during sun rise, rainy season and at night. 	<ul style="list-style-type: none"> • <i>Vishada</i> and <i>ruksha vayu</i>. • Clearance of <i>srotas</i> • Less or reduced pain • <i>Dosha</i> pacification by the use of unctuous (<i>snigdha</i>) treatment. • Colour will be <i>shyama</i> and • <i>Tamra</i>.
<i>Pitta</i>	<ul style="list-style-type: none"> • Foul smell • Greenish or bluish discolouration • Sour in taste • Stable • Heavy • Increased in quantity • Creates sour belching • Creates burning sensation in throat and heart 	<ul style="list-style-type: none"> • Without foul smell • Colour is <i>tamra</i> and <i>peeta</i> • Pungent in taste • Unstable • <i>Teekhsna</i> • <i>Ati ushna</i> • Increases <i>Agni, ruchi</i> and <i>bala</i>
<i>Kapha</i>	<ul style="list-style-type: none"> • Not clear (<i>aavil</i>) • Fibrous (<i>tantuman</i>) • Concentrate (<i>sandra</i>) • Resides in <i>kantha desha</i> • Destroys appetite and belching • Foul smell 	<ul style="list-style-type: none"> • Foamy • <i>Pinda roopa</i> • <i>Pandu</i> and <i>shukla varna</i> • Without foul smell • Sweet taste • Cleanse the mouth (<i>mukha shuddhi karak</i> as it excretes the excessive <i>kapha</i> through <i>chhedana karma</i>)

Clinical features of Sama Dhatu^{14,15}

Sama dhatu symptoms are not described separately by the *acharyas*, instead *dhatu pradoshaja vikara*

symptoms can be considered as clinical features of *sama-dhatu*.

Table no.4 Clinical features of *Sama-mala*^{16,17}

<i>Mala</i>	<i>Sama Symptoms</i>	<i>Nirama Symptoms</i>
<i>Purisha</i> (stool)	<ul style="list-style-type: none"> • Stool combined with <i>vata</i> etc. <i>dosha</i> • Stool sinks in water • Excessive foul smell • Constipated • Excretion of stool in less quantity and more in frequency 	<ul style="list-style-type: none"> • No foul smell • Stool floats over the water • No constipation • Lightness in the body after defecation.
<i>Mutra</i> (Urine) ¹⁸	<ul style="list-style-type: none"> • All types of <i>prameha</i> has been considered under this category 	<ul style="list-style-type: none"> • Normal quantity and normal consistency of urine is excreted • <u>No pain during micturation</u>

THERAPEUTIC VIEW OF AAM¹⁹

1. *Langhana* (Keeping on fast)
2. *Swedana*
3. *Sunbath*
4. *Pranayama*
5. *Yoga*
6. Panchakarma: its include *Vaman*, *Virechana*, *nasya*.
7. Some herbal drugs: fresh ginger, garlic, black peeper, castor oil, aloe vera, coriander, *Guduchi*, cumin, *Pushkarmool*, *Tulsi*, *Guggul*.

Importance of Ama in the treatment

When *doshas* are in the state of *sama*, *pachana karma* (digestive treatment) should be adopted and when *doshas* are in the state of *nirama*, *shamana Karma* (pacification treatment) should be done. When *sama-doshas* are present in whole body, then *shodhana karma* (purification treatment) should never be done as this may worsen the condition.

In *ama* condition, if there is any symptoms, *agnideepak*, *pachaka* & *vatanulomak* drugs should be given according to principle

DISCUSSION

The main factor concerned in the

formation of *Ama* is *mandagni*. *Aaharaj* and *manasik nidanas* contribute to the formation *Ama*. Here it is noteworthy that whenever there will be improper metabolism due to impaired functioning of *Agni* then only *Ama* will be formed. In modern parlance, *Ama* may be referred to be free radicals²⁰ which are intermedially byproduct of metabolism which have tendency to block the micro channels of different systems of the body.

Increase in the normal value of the blood urea, sugar, uric acid etc. may be understood as *Ama* condition²¹.

When ingested food gets digested properly by the *jatharagni*, then it acts as nectar and if it remains undigested, it takes the form of acid and becomes poison for the body²². *Ama* has considered as very important morbid factor responsible for causation of a variety of diseases and playing key role in manifestation of most of the diseases²³. Clinically we found that normal functioning for *dosha*, *dhatu* and *Mala* are altered when they are combined with the *Ama*. *Agni* is the key factor for production of *Ama*.

Consistency of *Agni* depends of many factors like season, time, age, etc. and that is why the *Agni bala* is measured during the *rogi pareeksha*. If *Agni* is found *manda* in any patient, there is more chances of production of *Ama* and manifestation of diseases caused by *amaja vyadhi* (diseases caused by *Ama*). The line of management of the diseases caused by *Ama* is different from the diseases not caused by *Ama*²⁴. If examination of *Ama* is not done, then given treatment may worsen the condition of the patient.

CONCLUSION

Proper knowledge of the state of *Ama* in the body is important to treat the root cause of the diseases clinically. Properly digested food acts as nectar and immature or poorly digested food acts as poison for the body. *Ama* in Ayurveda can be correlated with the Free Radicals which are also byproduct of poor metabolism. Clinical features of *sama-dosha-dhatu-mala* shows significantly difference from their normal functioning. Therefore line of treatment is also different for *sama-dosha-dhatu-mala* and *nirama-dosha-dhatu-mala*.

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