A REVIEW ON ROLE OF AMA IN THE PATHOGENESIS OF DISEASE

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ABSTRACT

The concept of Ama is unique to Ayurveda. Which acts as underlying cause of various disorder. Many factors play an important role in the production of Ama but in ayurveda, pragyaparadha act as a chief contributory factor. The term Ama means unripe or undigested food material.[1] Vagbhatta firmly believe that due to hypo-functioning of Agni the first Dhatu viz. the Rasa or chyle is not properly formed, instead the Annarasa undergoes fermentation or putrefaction being retained in Amashaya. It is a state of Rasa which is called as Ama.[2] By observing of different Samhita, few valuable and occult concepts comes into light which contribute Ama formation such as Mandagni, Dhatwagni-mandya and Mala Sanchaya etc. These factors facilitate Amotpati and participate in the pathogenesis of several disorders such as Amajeerna, Vidagdhajeerna, Vistabdhajeerna, Jwara, Atisara, Grahani Dosha and Amavata etc.[3] In the other hand the text of modern science states that due to disequilibrium of digestive juices, an oxidants (Ama) is produced which is a toxic byproduct & its peak level triggers the pathogenesis of different disorder.

KEYWORDS: Pragya Paradha, Agni, Dhatwagnimandya, Oxidants, Ajeerna.

INTRODUCTION

The concept of Ama is unique for health professionals related to Ayurveda. In our classics, Ama is described as the underlying cause of many health issues. The modern life style like people consume spicy & junk food (inappropriate combination of food); regularly watches the TV for many hours in a day and faces several cults and condition like stress, anxiety, depression etc. play a key role in the manifestation of various disorders. According to our Ayurvedic classics these are all comes under Pragyaparadha, which leads to misuse of mind,
the senses and time.[4] Mistake of intellect begin when one sees that which is harmful as useful or not eating according to ones level of hunger i.e Jatharagni; keen desire for over eating as a mistakes of senses and not eating according to season and time is as a mistake of time. All these condition aggravate Tridosh and lead to the dullness of Jatharagni, which creates Ama, that possess a huge role for the manifestation of varieties of disorders.

The term Ama is ordinary parlance means unripe, uncooked, immature and undigested.[1] It refers to events that follows and factor which arises, as a consequence of the impaired functioning of Kayagni.

Vagbhatta says that hypofunction of Agni, the first Dhatu viz. the Rasa or chyle is not properly formed, instead the Annarasa undergoes fermentation or putrefaction being retained in Amashaya. It is a state of Rasa which is called as Ama.[2]

Some other authors like believe that the impaired Vatadi Doshas (Vata, Pitta and Kapha) being mixed up with one another and leads to the formation of Ama Dosha, very much like yielding the Visha (poisonous or toxic substance) by the spoiled like Kodrava.[5] In the other words, due to malfunctioning of Kayagni, the digestion of ingested food is hampered, as a result the 1st Rasadhatu or chyme or chyle is being retained in Amashaya (Gut) and it undergoes such changes to yield toxic substances, known as Ama.

Vijaya Rakshita in Madhava Nidana commentary state that the undigested Annarasa possessing foul odour and excessive pastiness deprives the body of its nutrition and as a result, it causes Sadana, this is also called as Ama. Ama is also produced due to accumulation of Mala (wastes) & it is as a first stage of Dosha-Dushti.

Acharya Vagbhatta in Udara Roga Prakarana declares that almost all the diseases are produced due to impaired Agni namely Mandagni.[6]

According to Acharya Charaka the causative factor of Agnimandya are abstinence from food, over eating and irregular dietary habit, indulgence in incompatible foods, excessive consumption of cold substances, mal-effect of Virechana, wasting of tissue which follows in the wake of disease, allergic states endangered by change in place, climate and season, suppression of natural urges etc.[7] (Charaka Chi. 15)
In broad sense the causative factor for *Ama* production are as follow

(1) **Agnimandya**: Normal activity of *Jatharagni* is essential for complete and proper digestion of food but due to *Mandagni*, the food is not properly digested, as a result toxic by products are produced. Therefore its absorption become sluggish and it get retained in the intestine for longer duration. Due to this retention, it become fermented or even putrefied. This toxic product remains unabsorbed in the gut because of its incomplete digestion. It is the root cause of all the disorders.

(2) **Dhatwagnimandya**: The *Dhatwagni* plays an important role in the process of formation of tissue from the available nutrient substances. Hence when the power of *Dhatwagni* of a particular *Dhatu* diminished, the formation and utilization of that *Dhatu* become incomplete and *Ama* is produced. When *Ama* combine with the tissue is called as *Sama* (tissue with *Ama*).

(3) **Mala Sanchaya**: The *Agni* is energy responsible for the transformation of food substance in the body tissue. In the first phase of digestion it produces nutritious substance which is converted to tissue in second phase which is called as secondary or tissue digestion. The *Dhatwagni* converts the nutrient in the form of *Dhatu*. These *Dhatu* are utilized for energy production in daily works by a certain catabolic process. In this process some wastes or toxic metabolite (*Mala*) are produced. They are called subtle waste products or *Kleda*. Upto a certain limits, these are important for body but when ever it cross the normal limit i.e excessin amount is excreted out from the body. If the excretion process is inadequate or its production is abnormally higher then it get accumulated in the body. Which results in the formation of different types of *Ama*, which is toxic in nature.

(4) **Interaction of Ama with other Doshas**: Since the *Vata*, *Pitta* and *Kapha* possess different property to each other. When two or more *Doshas* are inter mixed with each other, then a very unique type of substance (*Ama*) is formed which usually contains the toxic property. This *Ama* has a great affinity with the different tissues or *Dhatu* of body and it can interact or combine with these tissues during the pathogenesis process of a particular disease. Then it is called as *Sama* state.

**Symptoms of Ama**: According to *Vagbhatta* the symptom of *Ama* includes obstruction of micro-channels, weakness or reduced working power, heaviness of body, *Anilmudhata*
(Improper functioning of Vata), lack of energy or mental clarity, indigestion, obstruction of faeces or stool (constipation), anorexia and tiredness.\[^8\]

According to modern text the symptoms of Ama includes high triglyceride, atherosclerosis, late onset diabetes mellitus, hypertension, rheumatoid arthritis, gout, allergic reaction and kidney and gall bladder stone etc.

**Role of Ama in development of disease**

Ama is identified as unripe or unprocessed entity in Ayurveda. The normally digested food is easily absorbed in the gut and takes it final out come. But the size of particle of Ama is larger than normal, it is slippery, heavier and sticky in nature. When the Ama is absorbed into the gut, it produces clogging or obstruction in different channel or srotas of body and plays a vital role for the pathogenesis of different disease. Charaka tells us about role of Ama in the pathogenesis of Alasaka and Visuchika. Due to Agnimandya, Alsaka, Visucihika and Vilambika diseases produces, but behind the whole story Ama act as a precursor.\[^9\]

**Samprapti of different Amaja Vyadhi\[^10\]**

Agnimandhya due to hypo functioning of neurohumoral mechanism responsible for the secretion of digestive juices and regulation of general metabolism

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\text{Ama is produced} \quad \downarrow \\
\text{Amajeerna} \ (\text{Kaphaja}) \quad \downarrow \\
\text{Visuchika} \ (\text{Gastroenteritis}) \\
\text{Vidadghajeerna} \ (\text{Pittaja}) \quad \downarrow \\
\text{Vilambika} \ (\text{Gastrointestinal Stasis}) \\
\text{Vistabdhajeerna} \ (\text{Vataj}) \quad \downarrow \\
\text{Alasaka} \ (\text{Meteorism})
\]

In Ayurvedic classic some other acute condition like Jwara, Atisara and Pravahika etc. are also caused due to Ama. Grahani Dosha, Yakritodara (liver damage or hepatic disease), Shotha, Pandu, Prameha and Amavata are also caused due to Ama. Ama possess cumulative tendency like Gara Visha and eventually causes chronic ailments. Majority of the people believe that the ama act as antigen in human body and it provoke and stimulate the body
defense mechanism to produce the auto antibody. As a result varieties of autoimmune disorder are produced.

DISCUSSION
The human being is a old as his Agni. The whole catabolic and anabolic processes are carried out in human being regularly guided and regulated by Agni. In definition of Swasthya, "Samagnita" is stated, which indicates the equilibrium status of digestive hormones, juices and enzyme. But if, due to Pragyaparadha or faulty life style, the Agni is deranged then the metabolic activity become disturbed at cellular, tissue or organ level and it facilitate to the formation of Ama. Chemical behavior or composition of Ama is suspicious and very hard to demonstrate. It can be under stood at GIT level but when we see its impact on tissue or cellular level, several queries arises in mind. In Ayurveda, ama is also compared with Visha and Garavisha and produces several acute and chronic diseases. Some Ayurvedic physician believe that ama act as an oxidant or toxic byproduct generated due to improper activity of digestive machinery. Some expert also elaborate, the Ama as a triggering factor for a particular disease. This concept could be commendable in the context of genetically predisposed diseases but can not be accepted universally. Infact the Ama is a concept of anything that indeed progresses the pathogenesis of a particular disease but its nature, from and mode of effect, is not determined so far.

CONCLUSION
Ama is an outcome of Madagni. It is a major causative factor for varieties of disorders in Ayurveda. An Ayurvedic physician should also concentrate upon Sama and Niramavasta of a particular disease, and set a specific strategy for either types of conditions. If it is properly executed, we can check the disease process.

REFERENCES


