

ROLE OF AGNI AND PROCESS OF AHARA PAKA (METABOLIC TRANSFORMATION) IN AYURVEDA**Dr. Gupta Payal*¹ and Mishra Pramod Kumar² and Dr. Rajesh Kumar Sharma³**

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ABSTRACT

In Ayurvedic system of medicine, Agni maximally represents digestive and metabolic fire in the body. It is the substance in the secretions of the body which are directly responsible for digestive and chemical changes in the body. Ingested food is to be digested, absorbed and assimilated, which is unavoidable for the maintenance of life, and is performed by the Agni. According to the functions and site of action, Agni has been divided into 13 types, i.e. one Jatharagni(digestive enzymes), five bhutagni and seven dhatvagni (metabolism at tissue level). Jatharagni is the chief among all types of agni's because function of bhutagni and dhatvagni depend on this. Aggravation or diminution of jatharagni results in aggravation or diminution of bhutagni and dhatvagni. Jatharagni is the most important one, which digests four types of food and transforms it into Rasa and Mala. The five Bhutagnis act on the respective bhutika portion of the food and thereby nourish the Bhutas in the body. The seven Dhatvagni act on the respective dhatus by which eachDhatu is broken into three parts. In this way, the entire process of transformation consists of two types of products – PRasad (essence) and Kitta (excrete). The former is taken for nourishment while the latter one is thrown out, which otherwise defiles the body if it stays longer. Agni provides Bala, Arogya, Ayu, Prana, Swasthyam, Varnam, Utsaha, Prabha, Ojha and Teja to the body . According to Acharya Sushruta, there is no existence of any other Agni in the body without Pitta, because when there is increased digestion and combustion in the body due to Ushna guna of Pitta, the treatment is like Agni. Agni is a key factor in transformation of consumed aahar viharadi dravyas of vijatiya origin to sajatiya nature and converts the food consumed and produces energy.For understanding of disease process and prescribe of treatment is one of the important concepts of agni.

KEYWORDS: *Jatharagni ,bhutagni ,dhatvagni ,aahar paka.*

INTRODUCTION

The term *agni* stands for the biological fire. Agni, the biological fire is not only vital at physiological but at pathological levels, also. Just like food stuffs are required by the human body regularly for nutrition, the agni or the digestive fire need regular feeding in order to carry out physiological biochemical pathways in the human body In Ayurvedic system of medicine, *Agni* maximally represents digestive and metabolic fire in the body. It is the substance in the secretions of the body which are directly responsible for digestive and chemical changes in the body. Ingested food is to be digested, absorbed and assimilated, which is unavoidable for the maintenance of life, and is performed by the *Agni*. Majority of the health disorders are the outcome of improper functioning of the agni as it is central subject to

the health. The role of agni is not limited to absorption of macronutrients as well as micronutrients, but is essential for destruction of microbes and pathogens. The food-stuffs which are not properly digested are referred to as "ama" in Ayurvedic system of medicine. Ama or toxic substance is responsible for origin of diseases like rheumatoid arthritis. According to the Ayurvedic principles, improper functioning of the digestive fire is the root cause of the clinical diseases.According to *Ayurveda "Sarvam dravyam Panchabhautikam"* i.e all creation arises out of five great elements known as *mahabhutas*. As per *Ayurvedic* theory, like all the universal matter our body is also formed by the *panca mahabhutas*. In this *pancabautika sharira* various *paka* (metabolic transformations) are going on continuously.

AIMS AND OBJECTIVES

1. To emphasize and discuss the Concept of Agni in Ayurvedic classical literature.
2. To evaluate the process of digestion and metabolism in Ayurvedic classical texts.

MATERIAL AND METHODS

Basically this article is review of various Ayurvedic classical texts. Materials related to agni, in Ayurveda and other related topics have been collected from various Ayurvedic classical texts. The references were compiled, analyzed and discussed for a thorough and in-depth understanding of the concept of Agni and ahara paka (Metabolic transformations) in Ayurveda.

(A) Concept of Agni

Human body is derived from food. In healthy state the food consumed is properly digested and assimilated by the body with the help of Agni. Agni provides Bala, Arogya, Ayu, Prana, Swasthyam, Varnam, Utsaha, Prabha, Ojha and Teja to the body.^[1] All the transformations in the body is catalyzed by Agni, if Agni is impaired, the proper transformation of food, Dhatus and Malas are impaired and this will lead to accumulation of waste products in the body. Agni Dusthi is the causative factor for most of the diseases.

(B) Type of Agni (As per different ayurvedic text)

Charaka has described about 13 Agnis (Jatharagni – 1, Bhutagni – 5, Dhatvagni – 7)

According to Sushruta, five types of Agnis are identified, (Pachakagni (concerned with digestion), Ranjakagni (concerned with colouration of bile-pigments), Alochakagni (concerned with vision), Sadhakagni (concerned with digestion) and Bhrajakagni (concerned with brain),

Vagbhata has described different 18 types (Bhutagnis – 5, – Dhatvagnis – 7, Dhoshagni – 3 and Malagni – 3),

Agnis are also classified into four categories according to how they manifest in the human being. (According to bala bhed in charak sahita)^[2]

(1) Tikshnagni (2) Mandagni (3) Vishamagni (4) Samagni

(C) Agni and Pitta

According to Acharya Sushruta, there is no existence of any other Agni in the body without Pitta, because when there is increased digestion and combustion in the body due to Ushna guna of Pitta, the treatment is like Agni. The term Pitta is derived from "tapasantape". Pitta is the factor, which regulates all the thermo dynamics, Chemo dynamic activities in the body, in which function of agni are a part. Agni within the body represented by heat of the pitta. In normal state it brings proper digestion, Vision, joy, happiness, maintains normal bodily heat and normal complexion. In abnormal state it brings indigestion, loss of vision, fear, anger, bewilderment, abnormal bodily heat and abnormal complexion. Agni

and pitta both have few similarities and dissimilarities. The similarities of agni and pitta are dahana, pachana karmas and similar response to sheetala, ushna. Both are possessing moieties of agni mahabhoota. The Dissimilarities are, agni is sushka and ruksha in nature, Pitta is drava and snigda. Agni maintains pakadi karmas but pitta maintains dhi, buddhi, body maintenance in addition to pakadi karmas. Ghrita causes agni vrudhhi and pitta shamana. Pitta has got wider aspect of functions apart from agni functions. Agni has got similar function to that of pitta in aspects of digestion and metabolism.

(D) Stage of Aahara paka (metabolic transformation)

1. Jatharagni/ khosthagni paka

Present in the pachak pitta. It is responsible for the digestion and the absorption of nutritious substances during this process. The process of digestion (ahar pachan) is divided in three stages, which collectively is called awastha paka and can be divided in the following.^[3]

Amavstha (Madhuravastha) Paka - in stomach

Pachymanavastha (Amlavstha) Paka - in 'grahani' (Duodenum)

Pakavstha (Katuavstha) Paka - in small and large intestine.

As the rasa changes in different phase of digestion these phase of digestion are called avsthapaka. At the end of the digestion the digested food have their original rasa which is in accordance with the rasa of the ingested food. This is called as Nistha paka. It is also called popularly as Vipaka.

Madhur rasa and Lavan rasa have Madhura Vipaka, Amla rasa have amla vipaka and Katu, Tikta and Kashaya rasa have Katu vipaka.

2. Bhutagni paka

The Bhutagni paka and Dhatvagni paka comes under Secondary Digestion and Metabolism. Bhutagni is the one that is present in a basic element (Bhutas). There are five Agnis in each of the five basic elements, namely, Parthiva (earth), Apya (water), Tejas (Agni), Vayavya (vayu) and Nabhasa (akash)^[4]. Each and every cell in our body is composed of the five mahabhutas (panchabhoutika). Each cell (dhatu paramanu) consists of these five bhutagni also. All the nutrients in this world that we eat also consist of the same five basic elements with their respective agni. Thus, they are completely similar with respect to the five basic elements with their bhutagni in our body cells as well in the entire outside nutrient that we ingest for the nutrition of our body. All the nutrients in this world that we eat also consist of the same five basic elements with their respective agni. Thus, they are completely similar with respect to the five basic elements with their bhutagni in our body cells as well in the entire outside nutrient that we ingest for the

nutrition of our body. The *panchabhoutika sharira* is to be maintained and nourished with the *bahya panchaboutika amshas*. To convert such alien *amshas* to part of the body there exists a process of *paka* (Metabolic) transformation), which is attributed to *Bhutagni*. The five *Bhutagnis* digest their own part of the element present in the food materials. After the digestion of food by the *bhutagni*, digested materials containing the elements and qualities similar to each *bhutas* nourish their own specific *bhoutika* elements of the body. So, all the exogenous substances must be subjected to *Bhutagni paka* to become endogenous. Thus cause appropriate nourishment of tissues,

3. Dhatvaagni paka

That which promotes the growth of *sharira* (body) is *dhatu*. *Dhatu*s are seven in number, *Rasa, Rakta, Mamsa, Meda, Asthi, Majja* and *shukra*. *Sapta dhatus* get nourishment from *ahara rasa* or the chyle. chyle is the end product of digestion. Each *dhatu* is of two kinds, *Asthayi* (mobile or non static) or *poshaka* (meant to nourish) and *Sthayi* (fixed, *sthira*, static, already formed and existing) or *poshya*. *Srotamsi* do not transport *Sthayi* (*poshya*) *dhatu*s. *Dhatu*s are formed consecutively, one after another, from the *Poshaka* or *asthayi dhatu*s. *Dhatvagnis* are seven (*Rasagni, Raktagni, Mamsagni, Medogni, Asthyagni, Majjagni, shukragni*)⁽⁵⁾, located in its own *dhatu*s (tissues). After *Jatharagni paka* and *Bhutagni paka adya ahara rasa* (chyle) circulates in the body to reach all tissues. Functions of *Dhatvagnis* are mainly two. One is synthesis of new tissue. Second is to yield energy for the function of tissue. If *Dhatvagni* is impaired both of these will impair. Seven categories of *agnis*, and *dhatu*s undergo metabolic transformation in two different ways for the sustainers of the body. One is *Prasada paka* and another is *kitta paka*. The *Prasada paka* is stated to yield the seven kinds of *poshaka* or *Asthayi dhatu*s. *kitta paka* is the waste products²⁴. The nutrient fraction of *rasa* (plasma) provides nourishment to *rakta* (blood), that of *rakta* (blood) to *mamsa* (muscle tissue), that of *mamsa* to *medas* (fat), that of *medas* to *asthi* (bone), that of *asthi* to *majja* (bone marrow), and the nutrient fraction of *majja* provides nourishment to *shukra*. The foetus (*garbha*) is the product of nutrient fraction of *shukra*.

Besides performing all the metabolic functions agni takes care of digestion (aahar pachan) and in the absence of aahar it acts on the ama pachan i.e. properly metabolize the improper metabolites. When ahar and ama are absence Agni does the function of dhatu i.e. rasa, rakta etc. Digestion of dhatu is a fatal condition in which dhatus are broken down to get energy. The reduction or deficiency of the quantum of dhatu in the human body leads to the disease called 'Kshaya roga'.

In ayurveda it is believed that all the pathology occurs due to the impairment in Agni (Kaya). Hence the correction of Kaya i.e. Agni is called the treatment or '*Kaya Chikitsa*' in ayurveda.

CONCLUSION

Agni converts food in the form of energy, which is responsible for all the vital functions of our body. *Agni* is the invariable agent in the process of *ahara paka* (metabolic transformations). Ingested food is to be digested, absorbed and assimilated, which is unavoidable for the maintenance of life, and is performed by the *Agni*. *Agni* means it is a substance responsible for digestion and metabolism.

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