A CONCEPT OF AGNI IN AYURVEDIC SYSTEM OF MEDICINE:
A CRITICAL REVIEW

Naresh K. Kumawat¹, Dharmendra K. Sharma², Dhannajay³.
¹Lecturer, Deptt. Of Kayachikitsa, S.B.L.D Ayurved Vishwabharti, GVM, Sardar Shahar, Dist. Churu, Rajasthan.
²Associate Professor, Deptt. Of Kayachikitsa, S.B.L.D Ayurved Vishwabharti, GVM, Sardar Shahar, Dist. Churu, Rajasthan.

ABSTRACT:
In Ayurvedic system of medicine, Agni maximally represents digestive & 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. Agni provides Bala, Arogya, Ayu, Prana, Swasthyam, Varnam, Utsaha, Prabha, Ojha and Teja to the body. For understanding of disease process and prescribe of treatment is one of the important concepts of Agni.

Key Words: Jatharagni, Dhatvagni, Bhutagni, Bala.

INTRODUCTION:
Agni may be correlated with digestive (pakh) and different kinds of hormones, enzyme and co-enzymes activities etc. which participate in these digestive & metabolic functions. Due to increased activity of pitta in yuva vastava (young stage) digestive & metabolic rate are higher. Vigor & vitality of human being is also maintained by balanced activity of Agni. It is necessary for proper growth & development of the body & their parts[1]. Due to advancement in age, depletion of Agni is taking place (in old age) which cause instability in Agni, ultimately leads to decrease decay, atrophy, decay due to defective digestion in metabolism.[2]

AIM AND OBJECTIVES:
➢ To emphasize and discuss the Concept of Agni in Ayurvedic classical literature.
➢ To evaluate the process of digestion and metabolism in Ayurvedic classical texts and in modern 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. Explain the correlation between Pacaka pitta, Saman vayu and Agni. The modern medical
literatures as well as other various related information were collected from related
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\(^3\). 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\(^4\). The normal activity of the Agni helps the maintenance of physiological activities while its abnormal state produces pathology and its absence causes of death of the human being that is why Agni is known as Mula or Vital force\(^5\). Agni is closely related to Pitta. The main function of Pitta is described as pachana, separation of sara and kitta, Dahana, Bhinnasanghata, Prinama, Ranjana, Varnakarana and Prabhakarana. The term Agni not only includes Jatharagni but also Bhutagnis and Dhatwagnis. These are responsible for digestion and metabolism at different levels. These are as follows:


Jatharagni / Pachakagni: It is the main Agni (digestive juice) present in the body which is situated in Kostha and does Pakadi Karmas (digestion). Existence of all the different kind of Agni in their required pramana, Guna and Karma is known as Agnivaishamya (abnormal function of metabolism and digestion). In all the classical texts four states of Jatharagni are described.


The classification of Agni seem to have two aspects-
1. An aspect which may be described as natural and which forms as part of Prakriti of the individuals as described by Acharya Charaka\(^6\).

The prakriti in every individual a specific state of Agni also gets fixed at the time of birth itself. It is illustrated below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Prakriti</th>
<th>Agni</th>
<th>Predisposition to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vata</td>
<td>Vishama</td>
<td>Vata Rogas such as pain, paralysis.</td>
</tr>
<tr>
<td>2.</td>
<td>Pitta</td>
<td>Tikshna</td>
<td>Pitta rogas such as acidity, Daha.</td>
</tr>
<tr>
<td>3.</td>
<td>Kapha</td>
<td>Manda</td>
<td>Kapha Rogas such as anorexia, Aam.</td>
</tr>
</tbody>
</table>

[The classification is important in preventive medicine]

2. An aspect where Tridoshas get involved due to the operation of different etiological factors on the body leading to reciprocal influence between them and Agni.

The classification of different states of Agni due to pathology has been explained well by Vaghatta. Acc. to him the function of Agni is normal when Samana Vayu is functioning normally in its own place. On the other hand, if this Vayu moves to the places other than its own (Prakopa). Agni too will be disturbed. Such Prakupita Vayu if gets
combine with Pitta, then the Jatharagni becomes Tikshna (increase of appetite) and if it is affected by Kapha then the Agni become Manda (loss of appetite)[7].

Samagni: In the well equilibrated state of functioning of Tridoshas the jatharagni functions normally. In this state Jatharagni ensures complete digestion of food in scheduled time, without giving any adverse effect to the body[8]. The Samagni digests and assimilates food properly at the proper time. This thus increases the quality of the Dhatus (supportive tissues of the body). Persons having Samagni are always hale and healthy.

Vishamagni: In Vishamagni, Agni varies with periods of strong appetite alternating with loss of appetite[9]. This type of Agni changes between digesting food quickly and slowly. When this Agni is affected by the Vata Dosha, it creates different types of udargata roga.

Tiksnagni: The Agni in this state is excited by pitta, hence is known as Tiksnagni. It digests even large quantity of food in scheduled time[10]. It is means very quick/very sharp/very fast. Tikshnagni is a state of very quick digestion of food, regardless of the type of food. Acharya Shushrut states that when the power of digestion is increased from normal to above normal, food digests very quickly and produces hunger or the desire for food. When food is digested, the throat, the mouth cavity and the lips become dry with a burning sensation. This condition is known as “Bhasmak Roga” according to Ayurveda.

Mandagni: Agni is low in this type with poor appetite, low metabolism and it can’t digest even little quantity of food in scheduled time. With three kinds of abnormal Agnis the digestion of food will not be proper. In Mandagni the food will be Apakwa (inadequately digested). Word “Mand” means slow. The meaning of the Mandagni is slow digestive power or digestive capacity. Those who are having Mandagni eat very little and are unable to digest the smallest amount of food. Dhanvantri says that Agni digests the least amount of food in the greatest amount of time.

In Mandagni and Vishamagni there will accumulation of Ama (undigested material) in rasa Dhatu. Samarasa Dhatu travels all over the body and produces symptoms like Srotorodha, Babhramsa, Gaurava, Vayyudhata, Alasya, Apakti, Nisthiva, Malaganga, Aruchi and klama. The Doshas which are mixed with Ama produce some of their own symptoms. Since the Tridhoshas are also present in the rasa they also get mixed with the Ama and called as Samadoshas. Samadoshas get enter into the Dhatus and Malas, get lodged in them and make them Samadushyas. All these together give rise to many diseases[11].

Bhutagni: The human body is composed of Panchamahabhutas (five elements of nature) and the food on which the body survives is also made up of the same elements. They are five in number and present in Kosthagni itself. Acharya Charaka has referred Bhutagni in the context of his description of the process of normal digestive events. In this view the digestion of food, by Jatharagni leads to the breakdown or sanghata Bheda of the food into five distinct physochemical groups (viz Parthiva, Apya, Agneya, Vayavya and
Nabhasa) and the activation of the Agni Bhuta present in each one of them.[12]

The Bhutagni thus activated digests the substances of that group. Acharya vagbhatta also stated that each one of the five kinds of dravyas after Bhutagni Paka precedes to argument the corresponding Bhuta element that composes the human body.[13] There are five Agnis in each of the five basic elements, namely – Parthiva (earth), Apya (water), Tejas (Agni), Vayavya (vayu) and Nabhasa (akash).

Each and every cell in our body is composed of the five mahabhutas or five basic elements. Naturally, 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 or bioenergies. 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. Acharya Charaka has mentioned that the five Bhutagni 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 bhautika elements of the body.[14] These Bhutagnis act after the Jatharagni present in the stomach and duodenum, acting on the food and causing their disintegration. In the modern physiological perspective, the action of Jatharagni can be equated with the digestion in the stomach and duodenum, and the action of the Bhutagni can be equated with the conversion of digested materials in the liver. The Vitamins, Essential amino acids, Essential fatty acids are to be supplemented essentially through the food for the conversion of concerned molecules in to the body tissues on to yield energy.[15]

Thus the essential factors supplemented through food for the synthesis of this panchabhoutika sharira can be considered as Bhutagni amshas, i.e. Vitamins, Essential amino acids, Essential fatty acids.[16]

The Panchamahabhuta composition of the body constituents are described by Acharya Chakrapani dutta as follows –

**Table.No.2 Relation between Tridoshas and PanchaMahabhutas**

<table>
<thead>
<tr>
<th>TRIDOSHA</th>
<th>MAHABHUTA PREDOMINANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vata</td>
<td>Vayu Predominant</td>
</tr>
<tr>
<td>Pitta</td>
<td>Agni predominant</td>
</tr>
<tr>
<td>Kapha</td>
<td>Apya predominant</td>
</tr>
</tbody>
</table>

**Table.No.3 Relation of Sapta Dhatu and Panchamahabhuta**

<table>
<thead>
<tr>
<th>SAPTA DHATU</th>
<th>PANCHAMAHABHUTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rasa</td>
<td>Apya predominant</td>
</tr>
<tr>
<td>Rakta</td>
<td>Agni + Apya predominant</td>
</tr>
<tr>
<td>Mamsha</td>
<td>Parthiva predominant</td>
</tr>
<tr>
<td>Meda</td>
<td>Apya + Parthiva predominant</td>
</tr>
<tr>
<td>Asthi</td>
<td>Parthiva + Vayu + Aakash predominant</td>
</tr>
<tr>
<td>Majja</td>
<td>Apya predominant</td>
</tr>
</tbody>
</table>

Table No. 4 Relation of Trimala and Pancha Mahabhuta

<table>
<thead>
<tr>
<th>TRIMALA</th>
<th>PANCHAMAHABHUTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mutra</td>
<td>Apya predominant</td>
</tr>
<tr>
<td>2. Purisha</td>
<td>Parthiva predominant</td>
</tr>
<tr>
<td>3. Sweda</td>
<td>Apya predominant</td>
</tr>
</tbody>
</table>

So everything in the body is the combination of Panchamahabhutas. The Bhutagni Pakas is also important among the pakas. Any disturbances of any Bhutagni cause disturbances to those structures and hence it fails to get nourished. The body develops through the nourishment of the seven Dhatus which are also combination of Panchamahabhutas. Each dhatu gets their nourishment through the nourishment of Bhutas by which they are formed. So Bhutagni is present in Dhatus also.

Dhatwagni: The use of term Dhatwagni, made more frequently in the classical world of Ayurveda, stands for Pittas concerned with the formation of Dhatus. The seven kinds of Dhatwagnis.[17]


Each Dhatwagni attends the digestion supplied to that Dhatu from circulating Poshakamsha. For example the Dhatwagni present in mamsa Dhatu digest the nutrient material required for Mamsa Dhatu only, but cannot digest those of other Dhatus. Dhatwagni is essential for the maintenance and growth of the Dhatus. Functions of Dhatwagnis 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.[18]

As the weakness of koshagni leads to formation of Ama, the weakness of Dhatwagni also leads to production and accumulation of Ama in Dhatu (tissue level) concerned, giving rise to improper Dhatu Vriddhi. If Koshagni is strong Dhatwagni also become strong. If Dhatwagni is stronger, they utilize quickly the quantity of nutrients supplied and still not getting satisfied and begins to destroy the Dhatus itself. This leads to Dhatukshaya. Hence both vridhhi and Kshaya of the Dhatus are Vikrita and are mainly due to weak and powerful Dhatwagnis respectively.[19]

CONCLUSION: Explaining briefly the digestive and metabolic functions of Agni, Acharya Charaka has mentioned that various types of dietic materials are digested by their own Agni (Bhutagni), encouraged and enhanced by Antaraggni (Jatharagni), which is further digested and metabolized by Dhatvagni to associate the body with the nutritional strength, complexion and happy life along with providing energy to the seven dhatus. It consist digestive (pak) enzymes and different kinds of hormones, and co-enzymes activities etc. which participate in these digestive & metabolic functions. It is a logical conclusion that Ama is produced due to hypo-functioning of Agni. At any level of the three Pakas (digestion and metabolism i.e. Madhur, Amla & Katu avastha paka & vipaka) due to hypo-functioning of the agni concerned unwanted chemical substances are produced known as Ama. Hypo-functioning of any Agni especially of
Jatharagni is likely to affect the function of other too, leading to formation of Ama in the different stage of Paka-karma. Lastly we can say that Agni plays very important role in growth, development & maintenance of the body. In healthy individual during awakening and sleep the Agni excited by Samanavata due to association of respiration and being blown by Udanavata. After digestion by paccakapitta, the metabolic products circulate in micro channel under the control of Vyanavata.

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[17] Ibid, Charaka Samhita, Chikitsasthana, 15/13; p. 454.
[20] An insight into the understanding of agni and its clinical importance; Byadgi P.S. et al/ IJRAP, 2011; 2(6); 1637-1641.

Corresponding Author: Naresh K. Kumawat, Lecturer, Deptt. Of Kayachikitsa, S.B.L.D Ayurved Vishwabharti, GVM, Sardar Shahar, Dist. Churu, Rajasthan.

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