

A REVIEW OF PHYSIOLOGICAL ASPECT OF AGNI IN AYURVEDA**Dr. Ashwini Rupsing Pawara^{1*} and Dr. Kad V. S.²**¹MD Scholar Dept. of Roganidan and Vikruti Vigyan.²MD Roganidan and Vikruti Vigyan.

S.V.N.H.T. Ayurved Mahavidyalay, Shrishivaji Nagar, Rahuri Actory, Rahuri.

Article Received on
21 Feb. 2019,Revised on 11 March 2019,
Accepted on 01 April 2019

DOI: 10.20959/wjpr20195-14659

Corresponding Author*Dr. Ashwini Rupsing
Pawara**MD Scholar Dept. of
Roganidan and Vikruti
Vigyan, S.V.N.H.T.
Ayurved Mahavidyalay,
Shrishivaji Nagar, Rahuri
Actory, Rahuri.**ABSTRACT**

The concept of Agni is the most important contribution of Ayurveda to Health care. its described our Body. In the Ayurvedic science, Agni is internal digestive fire which is responsible for all the nutrient transformation and assimilation in the body. It is responsible for the transformation of energy in the tissues and cells. It not only controls the digestive processes of gastrointestinal and cellular absorption and assimilation, but it extends also to the psychological processes that are associated with digestion. It indicates all the processes of the gastrointestinal tract, liver and tissue and cellular levels throughout the whole body. In addition to these processes, Agni controls the brain also in the psychological Sphere. In Brahmasutra, Agni has been meant to be a sign of life on the Body. the etymology of word 'Agni' was given by Acharya Yasaka, which is as follows Agni=A +G + Ni. Word 'A'

donates root, 'I' meaning to go, 'G' donates root. 'Anja' meaning to Glitter' or root 'Daha' meaning 'to Burn' and 'Ni' means 'to carry'. If Agni or the digestive fire is not working in a proper fashion, there is poor digestion, sluggish blood-circulation, poor stool formation, infections, poor energy levels, and poor impaired immunity against pathogens and diseases. According to the Ayurvedic principles, improper functioning of the digestive fire is the root cause of the clinical diseases.

KEYWORD: Agni, Jatharagni, Aharpaka, physiology of Agni, Digestion, Metabolism.**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. The definitions from *Vachaspatyam*, *Sabdakalpadruma*, *Unadikosha*, *Agni* has been described as the one who carries everything, moves everywhere, which can metamorphoses substances, which can bring transformation in substances, assimilates, which gives and takes, which has the capacity to enter into minute channels, which burns, which glows etc. All these definitions of *Agni* clearly states that *Agni* is the important key factor for transformation. *Agni* is key factor in transformation of consumed *Ahara viharadi Dravyas* of *vijatiya* origin to *sajatiya* nature. *Agni* is derivative of *Tejas* (fire) *Mahabhuta*, it carries metabolic transformations in which the inherent feature is change. *Agni* is having 13 categories. *Jatharagni* (1 type) looks after the functions of food digestion and absorption. *Bhutagni* (5 types) turns all the *vijatiya Panchabhautika Dravyas* consumed to *sajatiy panchabhautika dravyas*, i.e. conversion of heterogonous to homogenous. *Dhatvagni* (7 types) performs Synthesis and breakdown of tissues. Metabolic transformations occur after consumption of food. According to modern medicine metabolic processes of division and multiplication are going on in every cell (Dhatu) of our body from birth till Death. for these constant essential, without which the survival of our body will be quite impossible. the same biological energy is coined by Ayurveda as *Agni*. This *Agni* implied in the cell (Dhatu) of our body is two type potential and Kinetics. In Ayurvedic the concept of *Agni* and *Aharpaka* (Metabolic transformation) provides an extensive field of research in the present day.

Types of Agni

Ayurvedic has classified *Agni*'s into 13 subtypes in the body.

- *Dhatvagni*-7
- *Bhutagni*-5
- *Jatharagni*-1

According to Acharya Shushruta, five types Of *Agnipachakagni*, *Ranjakagni*, *Alochakagni*, *Sadhakagni*, *Bhrajakagni*.

Vagabhatta described about 23 *Agni Pitta*(5), *Bhutagni*(5), *Dhatvagni*(7), *Dhoshagni*(3) and *Malagni* (3).

Jatharagni

Jatharagni is the main important Agni, Which oblige and controls the function of all other 12 Agni. Jatharagni is the Agni (bioenergy) present in our Jathara (stomach and Duodenam) The Jatharagni is considered to be most important because each and every nutrient which we digest first come to Jathara and is subjected to action from Jatharagni. The process of Aharapaka or food-digestion is divided in three stages, (collectively known as Awastha paka) and can be further divided in the following:

- Amavstha or madhuravastha paka (occurs in the Amashya or stomach),
- Pachymanavastha or amlavstha paka (occurs in the Grahani or duodenum),
- Pakavstha or katuavstha paka (in small and large intestine)

Jatharagni is directly related to Dhatwagni (Bioenergy) in the cells and their metabolic processes with ultimate tissue metabolism or Dhatu-paka process. All the Dhatwagni depend upon the normal healthy state of Jatharagni. During the Dhatu-paka process heat and energy is liberated. which is used to our body.

Jatharagni is also classified into four categories according to how they manifest in the human being: 1) Vishamagni 2) Tikshanagni 3) Mandagni 4) Samagni.

Vishamagni is Predominance of vata Dosha and impact on digestion is sometimes digest the food quickly and sometimes slowly and the manifestations of Vishamagni is Diarrhoea Dysentery, Vatadi diseases etc. Tikshangni is predominance of pitta Dhosha and impact on digestion is very quick and the manifestations of Tikshangni is Predominance of Thorat, mouth cavity and lips become dry with a burning sensation. Mandagni is predominance of kapha dosha and impact on digestion is slow digestive power or digestive capacity irrespective of nature and amount of food. and the manifestations of mandagni is produced heaviness in the abdomen and Head, excessive salivation, nausea, fatigue. and the samagni is predominance of Dosha is Vata-Pitta-Kapha and impact of proper digestion and the man ifestations is Swasthavastha.

Bhutagni Bhutagni is the one which is present in basic element (Bhuta). There are five Agni in each of the five basic element namely: Prithvi (earth), Apa (Water), Teja (Energy), Vayu (Atmosphere) and Akash (Free space). Bhutagni is Digest there own part element from nutritional food. After the digestion of food by the Bhutagni, digested materials containing the elements and qualities similar to each Bhutas Nourish their own specific Bhoutik element

of the body so, all the exogenous substances must be subjected to Bhutagni paka to become Endogenous. thus cause appropriate nourishment of Tissues. its refer to final digestion of tissues. These Bhutagni Act after the Jatharagni present in stomach and duodenum acts upon the food and them Disintegrated. In modern physiological perspective Jatharangi action can be equated with the digestion in stomach and Dueodenam and the Bhutagni can be equated with conversion of digested materials in liver. According to physiology of Ayurveda, Bhutagni paka follows jatharagni paka and it complete the process of intestinal digestion. After completion of Bhutagni paka only, the formation of Ahara rasa is completed and rasa absorption is possible.

Dhatwagni

All the seven Dhatu (tissues) of the human body Posses their own fir or Agni in order to metabolize the macro and micronutrients supplied through the channels of circulation.

- Rasagni present in the Rasa Dhatu (plasma)
- Raktagni present in the Rakta Dhatu (blood)
- Mamsagni present in the Mamsa Dhatu (muscle fiber)
- Medagni present in the Meda Dhatu (adipose tissue)
- Asthyagni present in the Asthi Dhatu (bone)
- Majjagni present in the Majja Dhatu (bone-marrow)
- Shukragni present in the Shukra Dhatu (seminal fluid or semen)

Each Dhatwagni or the bio energy present in each Dhatu synthesise and transforms the essential Rasa Dhatu required for that particular Dhatu or cell from the basic nutrients present in the Annarasa or essence of our diet which we consume. Each Dhatwagni has got a speciality to synthesise and transform the constituents suitable to its particular Dhatu 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*, & *Dhatus* 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 Dhatus*. *kitta paka* is the waste products. The nutrient fraction of *rasa* (plasma) provides nourishment to *Rakta* (blood), that of *Rakta* (blood) to *mama* (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*.

Each one of the seven kinds of *Poshaka* or *Asthayi dhatus* is stated to be transported, as it is formed, to the respective *poshya (sthayi) Dhatus*, through *Srotas* (channels), specific to each such *Sthayi Dhatu* for being built up as part of the latter. These *Srotas* are known as *Dhatuvah Srotamsi*. These *Srotas* are seven (*Rasa Vaha Srotas, Raktavaha Srotas, mamsa vaha Srotas, medo vaha Srotas, Asthi vaha Srotas, Majja vaha Srotas, Shukra vaha Srotas*) in number. The nutrient fraction of *Rasa, Rakta, Mamsa, MedoDhatus* helps in formation of *Upadhatus* (subsidiary tissue).

Relation between Agni and pitta

Origin of pitta is form "Tapa" which means 1) Digestion-To give nourishment to the body by digestion of ingested food 2) To maintain the heat-By means of heat it maintains the colour lustre etc. of 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*. The term *Pitta* is derived from "*Tapasantape*". *Pitta* is the factor, which regulates all the Thermodynamics, Chemodynamic 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, be wil derment, abnormal bodily heat and abnormal complexion. The similarities of *Agni* and *pitta* are *Dahan, 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 Vruddhi* 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.

Physiological factors Affecting Agni

- **Prakriti (Biological Constitution)**

Prakriti makes a difference in the state of *Agni*. Kapha prakriti person has diminished state, pitta prakriti person has comparatively illuminated and vata prakriti person has uncertain increase and decrease of *Agni*.

- **Diurnal variation**

Agni performs best functions in Second Prahara of day (before noon) and first prahara of night (late Evening). So food should be taken in these timings only. Moreover, it tells us about the rhythmic increase and decrease in the range of Agni.

- **Age**

In adult state, it is on the peak and in old age, it diminishes gradually.

- **Ritu (Season)**

Agni is at peak in Hemanta Ritu (early winter) and lowest in Varsha Ritu (rainy season).

- **Diet**

Agni gets increased or decreased on the basis of diet it has to digest.

- **Physical activity**

Sedentary lifestyle, excessive sleep decreases and exercise elevates Agni.

- **Bala (Physical Strength)**

Rate of metabolic reactions (Agni) depends upon Bala or body strength.

- **Requirement of nutrition by Dhatu**

Rate of metabolism is directly affected by need of Dhatu for nutrition for their normal status.

DISCUSSION AND 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 Aharpaka of (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. The entire range of digestive and metabolic activity of the body takes place with the help of biological fire of the body known as Agni in Ayurveda. Normal state of Agni should be maintained by consuming suitable diet and behaviour because longevity and strength depends on the healthy state of Agni. When the Agni vitiated unwanted unripe by-products of digestion and metabolism i.e. Ama start forming and accumulating in the body at different levels from local (gastrointestinal) level to the systemic level. These pathological events ultimately lead to various gastrointestinal, allergic, auto-immune, and metabolic disorders. Hence Agni is a

pivot round which remaining factors responsible for the Maintenance of health and causation of disease as well as decay revolve.

REFERENCES

1. Concept of Agni and Ahara paka (metabolic transformations) in ayurveda, Goverdhan vani et al, IAMJ, July-Aug 2013; 1(4).
2. Concept of Agni in Ayurveda Dr. Chhaju Ram Yadav, Journal of Ayurveda NIA, Apr-Jun 2014; VIII(2).
3. Role of Agni and process of Ahara paka (Metabolic Transformation) in Ayurveda. Dr. Gupta payal WjPMR, 2017; 3(5): 131.
4. Charaksamitha of Acharya vidyadhar Shukla, hindi commentary published by chaukhamba Sanskrit pratishthan Delhi, punarmudrit sanskaran, 2015; ch.su 28/15.
5. Charaksamitha of Acharya vidyadhar Shukla, hindi commentary published by chaukhamba Sanskrit pratishthan Delhi, punarmudrit sanskaran, 2015; ch.su 12/4.
6. Text book of sharir kiriya vidgyan part 1 published by vd.shivajirao vhalal and vd. Rajendra Deshpande 4th editions chapter no 1 and 2.