

Understanding the Concept of Ahara and Its Metabolism- A Review

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ABSTRACT

The life relies only the *Ahara*. This is the universal truth told by *Acharyas in Ayurveda*. A proper and balance diet is the key source for the formation of body. *Ahara* (food) is the prime necessity of life .Food which we eat is used for the maintenance and growth of the body. Food also provides energy for doing work. Proper and wholesome diet also provides us good immunity. But all things can be possible if taken in accordance with the rules and are useful for all living beings. Such kind of food provide fuel to the fire of digestion and promote mental as well as physical strength, complexion and clarity of sense organs and also give proper energy to mind. Proper maintenance of the power of digestion, which is the supporter of vital energy (*prana*) also depend upon the intake of proper diet.

Keywords: *Ahara* (Food), immunity, physical strength, digestion, energy

INTRODUCTION

Ayurveda is the most ancient science of life. The main aim of Ayurveda is “*Swasthasya Swasthaya Rakshanam*” which means to maintain the health of healthy person and “*Aturasya Vikara Prasamanam Cha*” means to cure the disease of diseased person. The substance, their specific tastes, qualities, potencies and digestive transformation are responsible for equilibrium of the *Doshas* and *Dhatu*(fundamental support of body). According to one quotation of *Sushruta* “*Sankshepta Kriya Yogo Nidaan*

Parivarjnam”¹ i.e. treatment in short is to avoid the causative factors. *Aahar is one of the Traya Upstambha* (like pillar which supports building) in *Ayurveda*.² Basically *Ayurveda* is having an concept that the health and disease both are the product of *Ahara*.³ *Ahara* has been placed first which shows that it is most important to maintain and sustain the life .⁴ According to *Kashyap Samhita*, food as always been an important way to treat illness and maintain health and that’s why he called food as *Mahabhaishyajya*.⁵ (great medicine) It is true that researchers have made great contribution regarding the current knowledge about nutrition in medical field by denoting the deficiency diseases and their respective treatments. But much progress has not been yet made in regard to understanding the principals of *Ayurveda* about *Ahara*, so in present paper an attempt has been made to understand the concept of *Ahara* in *Ayurveda*

MATERIALS AND METHODS

The word *Ahara* is very much familiar since time immemorial. Various classics / dictionaries describe *Ahara* in their own unique way. *Shabda Kapla Druma* explains that *Ahara* is a substance which is swallowed through throat after eating.⁶ According to Taber’s Dictionary food is defined as any material that provides the nutritive requirements of an organism to maintain growth and physical well-being.⁷

Table no 1 : Classification of Ahara ^{8,9,10,11,12}

S.No	Charaka	Sushruta		Ashtanga Sangrah		Ashtanga Hrudya	
		Drava Varga	Annapana varga				
1.	Sukadhanya	Jala	Dhanya	Panam	Annam	Dravam	Adravam
2	Samidhanya	Ksira	Mamsa	Toyam	Sukadhanyam	Toyam	Sukadhanyam
3	Mamsa	Dadhi	Phala	Ksiram	Simbidhanyam	Ksiram	Simbidhanyam
4	Harita	Takra	Saka	Ikshu	Pakvannam	Ikshu	Pakvannam
5	Phala	Ghruta	Lavana	Tailam	Mamsam	Tailam	Mamsam
6	Saka	Taila	Krtanna	Madyam	Sakam	Madyam	Sakam
7	Madya	Madhu	Bhakshya	Mutram	Phalam	Mutram	Phalam
8	Ambu	Ikshu	Anupana				Ausadhavarga
9	Gorasa	Madya					
10	Ikshuvikara	Mutra					
11	Krtanna						
12	Aharayogi						

Table no 2 Classification of Ahara ^{13,14}

S.No	Classification basis	Types	Name
1	Edible	1	Ahara
2	Origin	2	Sthavarm (Vegetable products)
3	Prabhava	2	Hitam (wholesome), Ahitam (unwholesome)
4	Nature of intake	4	Ashitam (Eatables), Khaditam (Masticable food), Pitam (Beverages), Lidham (Linctus)
5	Mahabuta	5	Parthiva, Apya, Tejasiya, Vayaviya, Akasiya
6	Rasa	6	Madhura, Amla, Lavana, Katu, Tikta, Kashaya
7	Veerya	2	Sita, Usna
8	Veerya	8	Guru, Laghu, Sita, Ushna, Snigdha, Ruksha, Manda, Tikshna

Table no 3 : Classification of Ahara ^{15,16,17,18,19,20}

S.No	Classification as per different scholars	Types of Ahara
1	Acharya Sushruta (Based on effect of Ahara)	Ekanta – Hitakara; Ekanta – Ahitkara; Hita – Ahitkara
2	Shrimad Bhagavata Gita (Based on three modes of material nature)	Yajna, Tapa, Dana
3	Shrimad Bhagavata Gita (As per the effect of Ahara on Manas)	Sarvika, Rajsika, Tamsika
4	Acharya Sushruta, Bhavamishra, Yogratnakar, Kashyapa, Sarangdhar	Chusya, Peya, Lehya Bhojya, Bhaksya, Carvya

Metabolism of balanced diet and its correlation with Rasas-

Metabolism is the process in which food substances undergo chemical and energy transformation.

Carbohydrates Metabolism

All carbohydrates share a general formula of approximately $C_nH_{2n}O_n$; glucose is $C_6H_{12}O_6$. Monosaccharides may be chemically bonded together to form disaccharides such as sucrose and longer polysaccharides such as starch and cellulose. This phase commences from the entry of food into the mouth. Propulsion of food from the mouth to the *Urdhva amasaya* (upper part of stomach) is brought by *Prana Vayu*²¹ (One type of *Vatadosha*) The process of digestion, especially the fraction of Stomach) of it commences in the mouth. Under the influence of *Bodhaka Kapha* (one type of *Kapha*) responsible for taste perception, equivalent to saliva. This stage of digestion is reminiscent of salivary digestion and completed in the fundus of

stomach. The insoluble starch polysaccharides are converted to soluble dextrin, under the influence of salivary amylase (ptyalin). Salivary amylase action is *bhinnasamghata* (spitting) brought about by hydrolysis²². The insoluble starch polysaccharides are converted to soluble dextrin, under the influence of salivary amylase (ptyalin). Concept of *Bodhaka Kaphais* parallel to saliva secreted by the salivary glands. The action of *Bodhaka Kapha* on food, converts insoluble *madhura* (sweet) portion to soluble and mixes up with the frothy *Kledaka Kapha* (mucous) present in *Urdhva amashaya*²³

Final Products of Carbohydrate Digestion

Final products of carbohydrate digestion are monosaccharides, which are glucose, fructose and galactose. Glucose represents 80% of the final product of carbohydrate digestion. Galactose and fructose represent the remaining 20%.

Metabolism of Proteins & Fats

Digestion of proteins and fats occur in this stage by *Pachaka pitta* (HCl) secreted by the cells of the mucus membrane of the stomach. This makes the commencement of the *Amla bhava* or the acid (sour) phase of *prapaka* (first stage of digestion according to *Ayurveda*). This *Paka* (digestion) involves the conversion of insoluble proteins into the soluble ones under the influence of enzyme pepsin in the presence of HCl. This aspect of *prapaka* does not seem to have anything to do with the digestion of the end products of *Madhura Paka*²⁴. The outcome of this phase is acidified chyme. It is in *pakwapakwam* stage (not fully digested and 2nd stage of digestion according to *Ayurveda*). It has to go for further digestion in *adhoamashaya*. The partly digested food which has attained *amlabhava* (sour) is moved down and stimulates the humoral mechanism in *Adho Amashya* and discharge of *Accha Pitta* into it. *Achchapitta* (pancreatic juice) is secreted. The concept of *accha Pitta* includes the gall bladder, bile and pancreatic secretions, responsible for digestion of fats, proteins and carbohydrates²⁵. Acidified chyme passes down from the pylorus to the duodenum. It stimulates the Brunner's (duodenal) glands to secrete a number of intestinal juices. These are responsible for bile and pancreatic secretion to the duodenum for further digestion of partly digested carbohydrates, proteins, and fats of the chyme. It is the third phase of *Avasthapaka* (final stage of digestion) describes the events in the *pakwashaya* (large intestine) leading the formation of faeces and gases. This aspect relates to the acrid and pungent (*katu*) nature of reactions that occur in the large intestine. The material passed down from the *amashaya* (stomach) and reached the *pakwashaya* (Intestine) is dehydrated (*soshyamana*) and converted into lumps by heat, an acrid and pungent (*katu*) gas being produced in the process²⁶. The foregoing modern contribution is seen not only to confirm but also amplify the ancient

Ayurvedic version of events that take place in the large intestine and the formation of feces with production pungent *Vayu*²⁷. *Vipaka*

Post-Digestive Effect

The ultimate change in the *Ahara rasa* that occurs at the end of digestion of *Jatharagnipaka* (digestive fire) is called as *Vipaka*²⁸ (Post digestive effect). According to *Acharya Charaka*, the six *rasas* yield three kinds of *Vipaka*. *Madhura* (sweet) and *Lavana* (salty) *rasa* yield *Madhura vipaka* (sweet). *Amla Rasa* to *Amla Vipaka* (sour). *Katu, Tikta, Kasaya Rasa* to *Katu Vipaka* (acid, pungent).

Secondary Digestion – Metabolism:

The *Bhutagni paka* (digestion of food by fire according to *panchmaha-bhoota*) and *Dhatvagni paka* (digestion of food as per respective *dhatu* fire and *dhatu* are fundamental support of body) comes under Secondary Digestion and Metabolism.

Bhutagni paka *Bhutagni* is the one that is present in a basic element (*Bhutas*). 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. The five *Bhutagnis* digest their own part of the element present in the food materials. So, all the exogenous substances must be subjected to *Bhutagni paka* to become endogenous. Thus cause appropriate nourishment of tissues²⁹. In the modern physiological perspective, the action of the *Bhutagni paka* can be equated with the conversion of digested materials in the liver³⁰. 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 energy³¹. The process of *Bhutagni* paka should start immediately after digestive process in GIT. After that the *Bhutagni* functions are carried in the portal system, liver and vascular system through which *Ahara rasa* is circulated in the body for nourishing the *rasadi sapta dhatus*(fundamental support of body) . Hence liver is considered as centre of *Bhutagniv yapara*³²(working area of *bhutagni*). According to the physiology of *Ayurveda*, *Bhutagni paka* follows *jatharagni paka* and it completes the process of intestinal digestion.

CONCLUSION

Ayurveda since long is describing the beneficiary effect of *Ahara* as well as its adverse effects. *Acharya Charaka* stated that the ideal diet is that, which rebuilds the worn-out systems, nourishes *dhatus* and maintains equilibrium of the body constituents. Not only diet but also method of food intake has an important role in the continuity of healthy life. So understanding the concept of *Ahara* is of very much importance.

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