



**Title: COMPREHENSIVE EXPLORATION ON *PACHAKA PITTA* IN
DIFFERENT *AYURVEDIC* CLASSICS**

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ABSTRACT

Indian system of Medicine *Ayurveda* is a science of life not merely an alternative medicine. The entire Ayurvedic System revolves around the knowledge of *Tridosha*. The *Vayu*, *Pitta*, *Sleshma* are primarily considered as most indispensable factors in constitution of human body. The balance in them signifies health and imbalance leads to disease.

The *Pachaka Pitta* is one among five types of *Pitta* viz *Pachaka*, *Ranjaka*, *Sadhaka*, *Alochaka* and *Brajaka*. *Pakhwashaya* and *Amashaya Madhyasta* (in between large intestine and stomach) is the *Visheshha Sthana* of *Pachaka Pitta*. *Pachaka Pitta* is equivalent to *Jataragni* (digestive fire) since both are responsible for digestion of food, separates the essence of waste products of digested food. Being *Agneyatva* (fiery) in nature, it is devoid of liquidity.

Pachaka Pitta can be designated by the various secretions made from stomach viz. HCL, pepsin and first part of duodenum. All enzymes responsible for digestion like amylolytic, proteolytic, lipolytic enzymes and all gastro-intestinal hormones epitomizes the physiological functioning of *Pachaka Pitta*.

Keywords: Ayurveda, *Tridosha*, *Pachaka Pitta*, *Agni*, Digestive Enzymes

INTRODUCTION

The main principle of Ayurveda states *Dosha Dhatu Mala Moolam Hi Shareeram* [2] which means *Dosha's* are the biological forces which work through the medium of *Dhatu's* and *Mala's*. *Tridosha* are considered as most indispensable factors of human body namely *Vata*, *Pitta* and *Kapha*. Every one of us contain this unique combination of these three *Dosha's*, which influence everything from the shape of our bodies to our digestion, sleep patterns, skin tone, emotions and intellect. Each *Dosha's* are divided into five distinct subtypes that govern specific parts of the body and their functioning.

Among the three *Dosha's*, *Pitta Dosha* [1] is responsible for generation of heat in the body, *Dahana Karma* (digestion of food) and it spreads temperature to all parts of the body with its *Sara Guna*. There are two states of the *Dosha's*, *Prakruta* (natural) and *Vaikruta* [4] (morbid). *Pitta* in the natural state is responsible for digestion due to it is *Ushma Guna*(heat), when aggravate cause for many diseases. This *Pitta Dosha* is sub divided into five types according to its location specifically *Pachaka Pitta*, *Ranjaka Pitta*, *Sadaka Pitta*, *Alochaka Pitta* and *Bhrajaka Pitta*.

Focusing on *Pachaka Pitta* which is also termed as *Pachakagni*, *Antaragni*, *Jataragni* or *Audartaijas* [3] (the *Tejas* which is present in *Udara Pradesha*) and is

specifically located in between *Pakwashaya* and *Amashaya* (*Pakwamashya Madyastha*). The *Kala* which holds *Pachaka Pitta* is known as *Pitta Dhara Kala* or *Grahani*. This is also known as *Pachyamanashaya*. According to *Sharangdhara* this *Pachaka Pitta* is situated in *Agnyashaya* having the similar function of *Agni* (*Agnirupa Karma*) and is of *Tila Pramana*.

Like universal matter this *Pachaka Pitta* is also made up of *Panchamahabhuta*. Comprising of *Tejoguna* predominantly, but is in liquid form, not possessing the qualities of liquid like *Snigdha*, *Sita* etc. According to *Acharya Sushruta* This *Pitta* does *Annapachana*, it digests the food and also separate *Sara Bhaga* from the *Kitta Bhaga* with the help of *Samana Vata*. This *Sara Bhaga* rich in vitamins, minerals, proteins, fats, carbohydrates, sugar etc

It facilitates absorption through *Samana Vata* and being seated in *Grahani* itself, gives strength to *Grahini* as well as all other sub- divisions of *Pittas* and *Dhatwagni's* which are present in *Saptha Dhatu's* and *Bhutagni* [5]. *Pachaka Pitta*, due to its strength, obliges all other types of *Pittas*.

AHARA PACHANA KRAMA

Ahara-Pachana or the digestion of food is the main function of the *Pachaka Pitta*. The action is *Sanghata Bheda* [4] or the splitting up of food substances into their basic entities. The *Ahara-Pachana* in

Amapakwashaya has been described as *Avastha-Paka* change in the state or form of the food substances that is *Prapaka* mainly concerned with the meal, a combination of dietetic articles with *Shad Rasa's* followed by *Vipaka* the final *Rasa* (taste) produced by the *Jatharagni* on a substance at the end of digestion.

SARA KITTA VIBHAJANA BY ACTION OF PACHAKA PITTA

It is responsible for digestion of different types of food products so called by the name "ANAL". It divides digested food into two portions. *Sara Bhaga* from the *Kitta Bhaga* [3] with the help of *Samana Vayu*. This *Sara Bhaga* rich in vitamins, minerals, proteins, fats, carbohydrates, sugar etc. In *Mahasrotas* the part of the food which is not digested by the *Pachaka Pitta* is known as *Kitta* which is the mixture of both the solid and liquid part of the food. This *Kitta Bhaga* is also useful for those have capacity to digest such elements. It also separates *Doshas*, *Ahara Rasa*, *Mutra* and *Pureesha*.

ABSORPTION OF AHARA RASA

The ingested food moves to the *Kostha* with the aid of *Prana Vayu*, after reaching *Amashaya Samana Vayu* stimulates the *Pachakagni* [4] to aid in food digestion and separation also it does the *Shoshana Karma* i.e., absorption of water and nutrients.

Although the *Sthana* of *Pachaka Pitta* is in *Ama-Pakwashaya Madyastha*, but since the

process of digestion begins with mouth itself it has been divided into following types

- *Mukhagata Pachaka Pitta*
- *Amashayagata Pachaka Pitta*
- *Yakrutgata Pachaka Pitta*
- *Kloma or Pittashayagata Pachaka Pitta*
- *Kshudhantara Pachaka Pitta*

The functioning of all these *Pittas* is to do the *Pari-Paka* of the ingested food with the influence of *Samana Vayu* and *Kledaka Kapha* and makes it capable of entering the subtle cells. It separates the ingested food into *Dosha's*, *Ahararasa*, *Mutra*, and *Purisha*.

PACHAKA PITTA AND JATRAGNI

Agni is the heat factor which be inherent in the *Pitta*. The heat is the attribute of *Pitta* and this property of heat is expressed in the physical entity of *Pitta*. There is no heat other than that expressed through the entity of *Pitta* and hence this property of *Pitta* itself is known as *Agni*. *Pitta* being of igneous nature, come forth with functions like *Dahana* (burning, oxidation, combustion), *Pachana* (digestion) and is metaphorically identified with *Agni* as internal fire. All the above stated functions cannot be occurred in the body without *Pitta*. Hence the reason why *Pitta* is known as *Antaragni* or internal fire.

About both *Pitta* and *Agni Acharya Marichi* has mentioned in *Charaka Samhita* that it is

Agni alone that located in *Pitta*, gives rise to beneficial or harmful consequences, according to its normal or abnormal condition.

Thus, it is apprehended that the property of heat or *Agni* is stated in the body through the physical entity of *Pitta*. The properties of *Pitta* are *Ushna*, *Teekshna*, *Laghu*, *Durgandhi*, *Sara* and *Drava*. But this *Pitta* with multiple qualities cannot be referred as *Agni*. Only the *Ushna* quality of *Pitta* is liable to be known as *Agni* since the quality of heat is exhibited only by the *Pitta Dosh*. There is a difference between the property of heat expressed elsewhere and the *Agni* expressed in the *Pachaka Pitta*. The property of *Agni* expressed in other substances also imparts the properties like *Swedana*, *Dukhadayaka*, *Daahakrut* and *Trushnakara* [7] to them. But when expressed through *Pachaka Pitta* it performs the unique function of digestion of food in the human body.

PACHAKA PITTA AND ACCHA PITTA

Pachaka Pitta and *Accha Pitta* [6], these two entities cannot be identical. Even though the anatomical site of release of both is same, i.e., *Pachyamanashaya* (Small intestine), their characters differ significantly. '*Accha Pitta*' [6] is liquid in nature (*Cakrapāṇi* on *Ca.Ci.15/10*) whereas '*Pachaka Pitta*' is devoid of liquidity. Again, *Gangadhara*, commentator of *Caraka Samhita*, supporting this view, states that the '*Dosha*'s

released during '*Avasthapaka*' are not the actual functionally important '*Dosha*'s, but they are only '*Malarupri*' (By-products) in nature. So, '*Accha Pitta*' is only '*Malarupi Pitta*' in this context. As it is explained, '*Pitta*' is the '*Mala*' of '*Rakta*' and it may be bilirubin, which is the breakdown product of RBCs, released in liquid bile during digestion.

MODERN PERCEPTIVE OF PACHAKA PITTA

The function of *Pachaka Pitta* in Modern Physiology is conversed with all the digestive juice secreted by the different glands of the body viz. stomach, pancreas, small intestine, liver etc.

The Gastric Juice: The HCl converts pepsinogen to pepsin and also has bacteriostatic actions. This pepsin digests the protein. The bicarbonates along with the mucus protect the GIT epithelium. The intrinsic factor helps for absorption of Vit B12.

The Pancreatic Juice: consists of inorganic matters and organic matters (enzymes) like trypsin, chymotrypsin, etc. The pancreatic enzymes breakdown the protein to form peptides. Digests the starch to form maltose, malt triose & α -limit dextrin. Hydrolyses the triglycerides into monoglycerides & fatty acids. Separates phospholipids (like lecithin), cholesterol esters, DNA & RNA to produce nucleotides.

The Bile; is necessary for the digestion & absorption of fats by emulsifying it, & keep cholesterol in solution form [10].

The major functions of these digestive enzymes [11] are to digest ingested food particles in to simpler form so that body cells can utilize it, secretion of digestive juices and motility of the GIT remain under control of ANS and various local GI hormones.

So, the functions of *Pachaka Pitta* can be correlated to the functions of digestive enzymes as well as Gastro-intestinal hormones.

DISSCUSSION

Ayurveda has designated digestion, transformation and metabolism on the basis of its basic principles *Dosha* and *Agni*. Among three *Dosha's* *Pitta Dosha* is responsible factor for the generation of heat in the body which is essential to accomplish vital functions of the body. It directs digestion and metabolism from the cellular level to the tissue level, to that of the whole body. All Acharya's mentioned *Pachaka Pitta* [8], one of the five forms of *Pitta*. The *Grahani Ashrita Pachaka Pitta* [13] is responsible for *Pachana*, *Sara Kitta Vibhajana*, and *Anugrahana* of Other *Pitta*. Digestion is chief function of *Pachaka Pitta*. The digested food, which reaches the *Amasaya*, is distributed to the whole body by the help of *Dhamani's*. This gives us the idea that absorption of food takes place from *Adho-Amasaya* i.e., small intestine, through

the *Pitta Dhara Kala*. Digestion is primarily caused by three things that is by *Samana Vayu*, *Pachaka Pitta*, and *Kledaka* [12] *Kapha*. *Pachaka Pitta* is stimulated by *Samana Vayu* to aid in food digestion and the separation *Sara Bhaga* from *Kitta Bhaga* in which *Sara Bhaga* is rich in vitamins, minerals, proteins, carbohydrates and other essentials nutrients. By the *Soshyati* [9] action of *Agni*, this *Saara Bhaga* is absorbed through intestine. With help of *Samana Vayu* it reaches the Heart via the portal vein and inferior vena cava. From the preceding information, it is possible to compare the physiological functions of *Pachaka Pitta* with digestive enzymes, Gastro-intestinal hormones and local hormones like Trypsin, Chymotrypsin, Carboxypeptidase, Pancreatic Amylase, Pancreatic Lipase, Cholesterol Esterase, Phospholipase, Maltase, Pepsin, Gelatinase, and Urase. After discussion on *Agni* and *Pitta* it is realized that the property of heat or *Agni* is expressed in the body through the physical entity of *Pitta*. *Acharya Charaka* emphasises that *Agni* resides under *Pitta* and imparts all functions of *Pitta* while *Acharya Sushruta* mentioned apart from *Pitta* there is no different *Agni* in body. More or less both *Acharyas* pointed out the same fact but in different manner.

CONCLUSSION

After a comprehensive discussion of *Pachaka Pitta*, it has been perceived that,

Pitta is thermogenic principle of the body. After a thorough examination of *Pachaka Pitta*, it became apparent that each conception related to *Pachaka Pitta* had its own significance and was difficult to accomplish on a single point. The digestion of the food is the main function of *Pachaka Pitta*, along with this it controls functions of all other sub divisions of *Pitta*, *Dhatvagni's* present in *Sapta Dhatu's* and it gives strength to the *Grahani*. That is the Acidified food from *Amashaya* while passing through *Grahani* leads to secretion of *Pachaka Pitta* Which is in turn responsible for the secretion of *Accha Pitta* there by influencing tissue metabolism, especially oxidative reactions and the production of heat which aids digestion and separation of *Sara Bhaga* from *Kitta Bhaga*. Recent concepts in endocrinology and metabolism have undergone drastic changes. In short, apart from all classical hormones, autocrine secretions, paracrine secretions, local hormones, hormones of GIT and neurosecretions-including neurotransmitters-are all now being included under endocrinology. So, *Pitta* includes, in short, all those factors responsible for digestion and metabolism.

REFERENCES

[1] Tewari P. Caraka Samhita. 1st ed. Varanasi: Chaukhamba vishvabharati; 2018.

- [2] Ranade s. A Text book of Kriya Sharira. Reprint. Varanasi: Chaukhamba Sanskrit pratishthana; 2021.
- [3] Nandini. Sharira kriya Vidnana. 5th ed. Varanasi: Chaukhamba Sanskrit series office; 2018.
- [4] Das C. A Text book of Physiology. Reprint. Varanasi: Chaukhamba Sanskrit pratishthana; 2019.
- [5] Astranga Hriday Sutrasthan, Chapter 11, Editor Dr. Brahmananda Tripathi, Choukhamba Sanskrit Pratisthan Delhi, 2009
- [6] Patwardhan, D.K. (2013) *Human Physiology in Ayurveda*. Varnasi, U.P: Chowkamaba Orientalia.
- [7] Suśruta (1982) *Suśruta-Samhitā of Maharṣi-Suśruta*. Varanasi: Chaukhambha Sanskrit Sansthan.
- [8] Sajwan N, Sharma RK, Sharma DC “Physiological Importance of Pachakpitta in Aaharpaka (Digestion) In Modern Perspective” IRJAY. [online]2022;5(9);
- [9] Moharana, P. and Roushan, R. (2019) “A critical review of Pachaka Pitta in modern physiological perspective,” *International Journal of Research in Ayurveda and Pharmacy*, 10(1), pp. 18–20. Available at: <https://doi.org/10.7897/2277-4343.10015>.

- [10] Dr. Himanshu Sharma, Dr. O. P. Tiwari, Dr. S. N. Ojha, Relation Between Pachagni And Pachaka Pitta In Purview Of Digestion And Metabolism, Global Journal For Research Analysis: Volume-6, Issue-4, April 2017
- [11] Deka, D.D. (2022) “A Comparative Study of Pachak Pitta & Digestive Enzymes,” *IJRTI* [Preprint].
- [12] Shrikant, N. (2019) *A Physiological Study of Pachaka Pitta: A Review* [Preprint].
- [13] Dwarakanath, C. (1996) Introduction to kāyachikitsā. Third. Varanasi: Chaukhambha Orientalia.