PHYSIOLOGICAL STUDY OF PITTADHARA KALA AND ITS APPLIED ASPECT - A REVIEW

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Article Received on 13/07/2018
Article Revised on 03/08/2018
Article Accepted on 24/08/2018

ABSTRACT

There are many concepts in Ayurveda which are not much explained in detail and one of them is “KALA”. It is a unique and a very important concept explained by Acharya Sushruta in his Sushrut Samhita, in the 4th chapter named “Garbhavayakaran Sharir” i.e. Embryology. Even though Kalas are mentioned in the embryonic life, they are present and functioning in the body from the time of birth up to the end of life. Kalas are total seven in numbers and are situated at the extreme borders of Dhatu and Ashaya. Kalas are not arranged in the same order as dhatus. They don’t take part in dhatuaposhana, they are meant for dharan only. Kalas are not the formative elements or mechanical support of dhatus but these are the membranes with special functions. All samhitakaras have same opinion about number of kalas that these are seven in total. Among the sapta kala mentioned by various acharayas, Pittadhara kala stands sixth in order. It is the site of Agni (digestive fire) and thus plays a significant role in the physiology of our body by aiding in digestion and metabolism. It also has great clinical significance. Hence here it is reviewed in detail.

KEYWORDS: Kala, Pittadhara Kala, Agni, Dhatus, Ashaya.

INTRODUCTION

Kalas are total seven in numbers and are situated at the extreme borders of Dhatu and Ashaya. As duramen or core of a piece of wood or stem becomes exposed to view by cutting into it, so the dhatus of the body may be seen by removing the successive layers. These kalas are extensively supplied with snayus, bathed in Jarayu and encased in Shleshama. Thus, the three basic principles in the formation of kala are Snayu, Jarayu and Shleshama.[1]

According to Ashtang Sangraha, the ‘kleda’ which lies between the Dhatu and Ashaya undergoes pachana due to its own heat and it forms kala which is like kashthasara i.e. core of a piece of wood and it is covered by Shleshama, Snayu and Jarayu.[2] According to the teekakar Indu, Kala is the kleda of ‘Dhatusara’, which is not in the form of purvadhatu and doesn’t get converted into uttaradhatu but it remains as divider between these two dhatus. ‘Dhatu kleda vishesha’ is named as kala, according to Gananathsen. Kalas are not arranged in the same order as dhatus. They don’t take part in dhatuaposhana, they are meant for dharan only. Kalas are not the formative elements or mechanical support of dhatus but these are the membranes with special functions.

Among the sapta kala mentioned by various acharayas, Pittadhara kala stands sixth in order. It holds a significant importance in the anatomy and physiology of our body. It also has great clinical significance. According to Acharya Sushruta, Pittadhara kala is placed between the amashaya and the pakvashaya and this sixth kala which holds the pittam is also known as “Grahan”. The entire strength of this ‘Grahani’ is in the digestive fire i.e. Agni and the location of Agni in one’s body is also at Grahan. Thus, Grahan and Agni are inter-dependant and hence the dushti of Agni causes dushti of grahan, leading to various diseases. Hence, we will study here in detail.

AIM AND OBJECTIVES

To study the physiology of pittadhara kala and its applied aspect.

MATERIAL AND METHODS

Review of literature on pittadhara kala is collected from the library of our college and from authentic research journals, websites and digital publications etc.

REVIEW OF LITERATURE

PHYSIOLOGY OF PITTADHARA KALA

Pittadhara kala, 6th in order, holds four kinds of solids and liquid foods propelled from the amashaya and on its way to the pakvashaya. These four kinds of food are those that are chewed, swallowed, drunk or licked (Ashit, Khadit, Peet, Leadhi) and brought into the koshta of man.
and digested in proper time through the heating action of the pittam.[4]

The site of Agni, the one which receives the food, is called as grahani as per Acharya Charaka. It is located above the nabhi. It holds the undigested food, digests it and propels the digested food downwards towards pakvashaya. Any imbalances in Agni also disturbs the grahani and many diseases are produced.

In the Pachan karma of Pittadhara Kala, specifically Pachakagni digests the food and then after digestion, digested food is absorbed. Saman vayu helps for this function. Absorbed food is propelled with the help of Saman vayu and also unabsorbed is propelled towards large intestine. This is called as Munchan or Vimunchan karma.

Grahani performs following physiological functions,
• Retention of food in the stomach
• Receive the food
• Help in the process of digestion
• Provide adequate time to digest the food
• Provide beneficial factors like Ayu Varna, Bala and Swasthya etc.

PITTADHARA KALA AS GRAHANI
According to Acharya Sushruta, Pittadhara kala is placed between the amashaya and the pakvashaya and this sixth kala which holds the pittam is also known as “Grahani”.

The entire strength of this ‘Grahani’ is in the digestive fire i.e Agni and the location of Agni in one’s body is also at Grahani. Thus, Grahani and Agni are inter-depandant and hence the dushti of Agni causes dushti of grahani.

According to Ashtang Hridaykar, the part which harbours Agni and where four kind of food is been held is called as grahani. According to Sushruta, this grahani is called as the “Pittadhara kala”, which is the site of pachak Agni. Life, health, virya, oja, panchmahabhutaagni and saptdhatva-agni, all these factors depend upon grahani which is situated at the beginning of pakwashaya like an obstruction. When it is normal it holds the food, digests it and propels it downward and when it turns out to be abnormal, it loses its property to hold the food there for sufficient time, digest it, and thus undigested food is propelled further quickly. Thus, the strength of Grahani lies in Agni and vice versa. Hence disorder of Agni causes abnormality in grahani leading to many diseases.

Acharya Charaka has not described pittadhara kala but he has described grahani in detail and has stated that grahani is the site of pachak Agni. According to Sushrutacharya, pittadhara kala is called as grahani. From the above two opinions, grahani described by Charaka can be considered to be the same organ which is described as pittadhara kala by Sushrutacharya.

Acharya Sushrut has stated that kalas are related with vishegas, in the 4th chap of kalpa sthana. In a snake-bitten human, different vishegas comprising of different signs and symptoms occur, as the poison occupies kala one by one.

Dalhanacharya has stated that the kala which is purish-pitta-antahstha is the pittadhara kala. The snake venom crosses this sixth kala to produce symptoms of sixth vishega. Pittadhara kala is also known as majjadhara kala.

APPLIED PHYSIOLOGY OF PITTADHARA KALA
The digestive system is a communication between external environment and internal environment of the body. Pittadhara Kala is part of digestive system. It is a substratum for the Agni. Charaka says that Agni is a life. Physiology and pathology of the body depends upon status of Agni. He further says that, other Agnis are also dependent on Jatharagni. So when such Agni (Pitta-enzymatic system) is disturbed, that time function of Bhataguni and Dhatwaguni (metabolic activities) are also disturbed. Digestive system is frequently exposed to many pathogens and allergens because of food. Consequently many diseases are occurring in the Pittadhara Kala. It is said that.

“Rogah Sarveapi mandagnau”[5]
All the diseases are manifested due to Mandagni. To correct these diseases we have to treat the Agni primarily. So Pittadhara Kala, the seat of Agni holds a special importance in pathological aspect and treatment aspect.

Regarding the pathogenesis of abnormal Jatharagni, Vaghbata states that functioning of Jatharagni depends upon Saman vayu, within its place. If this moves out from its place to other place then it disturbs the Agni. When it combines with Pitta, it creates Tikshnagni, but when it combines with Kapha, the Agni becomes Manda and when it is afflicted by Vayu then the irregular or erratic condition Vishamagni is created.

The most important disease caused due to anatomical and physiological changes in the pittadhara kala leading in vitiation of Agni mostly mandagni is ‘Grahani vyadhi’. Hence, pittadhara kala plays a significant role in the health of an individual.

DISCUSSION
Pittadhara kala, 6th in order, holds four kinds of solids and liquid foods propelled from the amashaya and on its way to the pakwashaya. These four kinds of food are those that are chewed, swallowed, drunk or licked (Ashit, Khadit, Peet, Leedh) and brought into the koshta of man and digested in proper time through the heating action of the pittam.
Pittadhara kala—the site of Agni, the one which receives the food, is called as grahani as per Acharya Charaka. It is located above the nabhi. It holds the undigested food, digests it and propels the digested food downwards towards pakvashaya. Any imbalances in Agni also disturbs the grahani and many diseases are produced.

As described in Ayurvedic context, food semi digested in Aamashaya is held by the action of Pitta and then propelled to the next part of Grahani for another function like Shoshan and Munchan. Thus functions of Pittadhara Kala are listed as below.

Grahan- Collection of food
Dharan- Holding the food particles.
Pachan- Digestion
Shoshan- Absorption
Munchan - Separation and propelling action.

In the Pachan karma of Pittadhara Kala, specifically Pachakagni digests the food and then after digestion, digested food is absorbed. Saman vayu helps for this function. Absorbed food is propelled with the help of Saman vayu and unabsorbed towards large intestine. This is called as Munchan or Vimunchan karma.

According to Ayurveda, healthy life depends upon “Prakrut Agni”. Root cause of all diseases is ‘Mandagni’, thus being the site of Agni; the Pittadhara kala is related with all diseases. Qualities of Agni and Pitta are similar; also the relation between Grahani and Agni is reciprocal and interdependent. Thus, pittadhara kala plays a significant role in physiology of the Annavaaha strotas.

CONCLUSION
From the detailed physiological study of Pittadhara Kala from our ancient classics, it can be concluded that among the sapta kalas, Pittadhara kala, 6th in order is of great physiological importance. And as pittadhara kala i.e grahani and Agni are inter dependant, any dushti of Agni causes dushti of the pittadhara kala i.e. grahani avayaya leading to various diseases.

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