

DESCRIPTIVE STUDY OF PITTADHARA KALA

Dr. Diya Gakhar*

*Medical Officer, Nokha, Bikaner, Rajasthan, India.

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*Corresponding Author

Dr. Diya Gakhar

Medical Officer, Nokha,
Bikaner, Rajasthan, India.

ABSTRACT

Pittadharakala is sixth one which is *pakva-amashayamadyasta* that means it occupies the part of gastro-intestinal tract which extends from lower part of stomach (pyloric part) to ileocaecal junction. Healthy life depends upon the “*prakrut Agni*”. Root cause of all diseases is “*manda-agni*”. Thus being the site of *Agni*, the *Pittadharakala* is related with all diseases. So, in this regard, *Pittadharakala* has extreme importance. *Pittadharakala* has two functions that first are digestion of food and another function is absorption of digested substance. This study has a defined objective to study *Pittadharakala* anatomically and

describe its various characteristics. A detailed cadaveric dissection was carried out and it was concluded that *Kalas* are said to be *Snayaviya*, *Jarayu* and *Shleshma*. *Pittadharakala* is also called as *grahani*.

KEYWORDS: *Kala*, *snayu*, *shleshma*., *Amashaya*, *Grahani*.

INTRODUCTION

Sushrutacharya has very wisely made the suggestion that the knowledge of the anatomical structures of the body is of great value, it helps the surgeons as well as physicians to treat the related diseases.^[1,2]

In *sharir-sthanam*, *Sushruta* has recommended dissection on dead human bodies^[3] and suggested that any one desirous of acquiring a thorough knowledge of anatomy should dissect a dead body and carefully observe and examine its different parts and described the *sapta-kala* which is an evidence of minute research. The *kalas* are seven in number and are situated at the extreme border of the *Dhatuand Ashaya*.

The sixth *kala* is called *Pittadharakala*. It holds four kinds of solid and liquid foods propelled from *amashaya* and on its way to the *pakvashaya*, for the proper action of digestive juice upon it. For the treatment of many diseases, we must have knowledge of *kala*. Healthy life depends upon the “*prakrut Agni*”.^[4] Root cause of all diseases is “*manda-agni*”.^[5] Thus being the site of *Agni*, the *Pittadharakala* is related with all diseases. So, in this regard, *pittadharakala* has extreme importance. Hence specific site of *Pittadharakala* has to be decided and studied anatomically.

AIMS AND OBJECTIVES

- To decide the site of *Pittadharakala* according to *Ayurvedic* anatomy.
- To decide the site of *Pittadharakala* in human body with the help of cadaveric dissection.

MATERIAL AND METHODS: For the study a detailed cadaveric dissection was performed.

RESULT

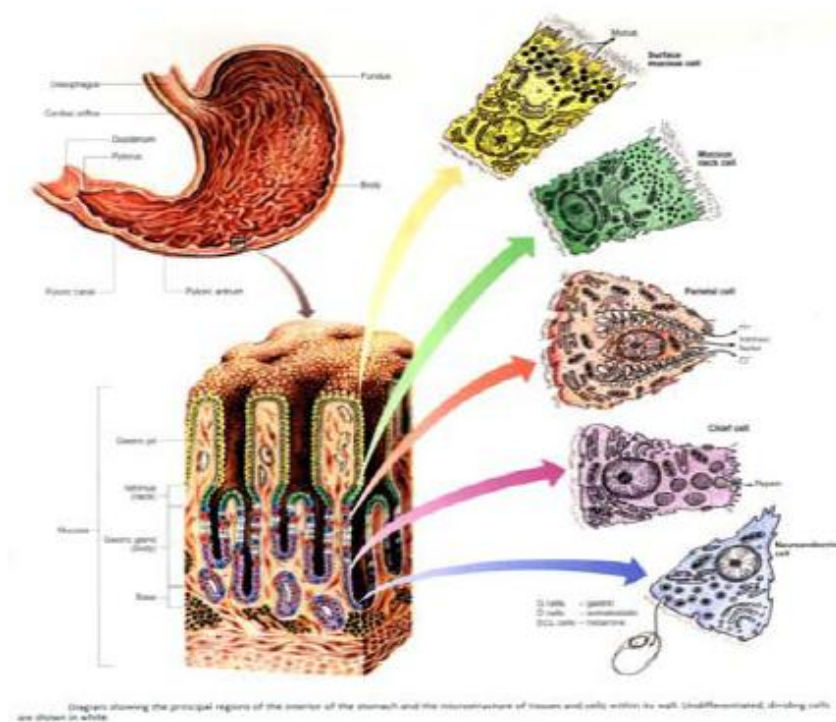


Fig-1: Histopathology of Stomach^[6].

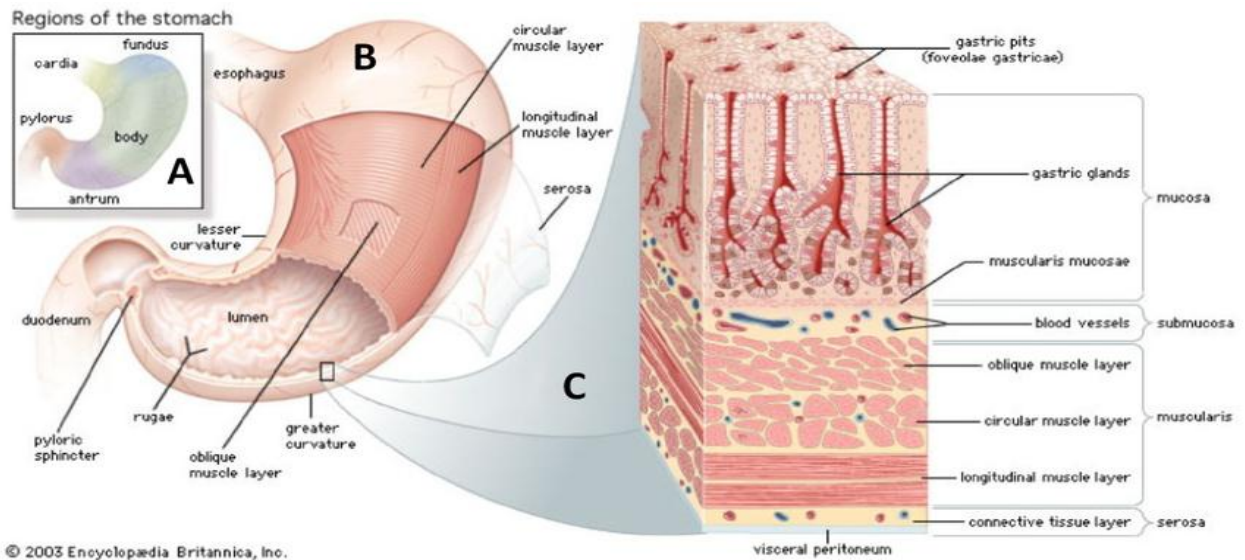


Fig-2: Regions of stomach^[6].

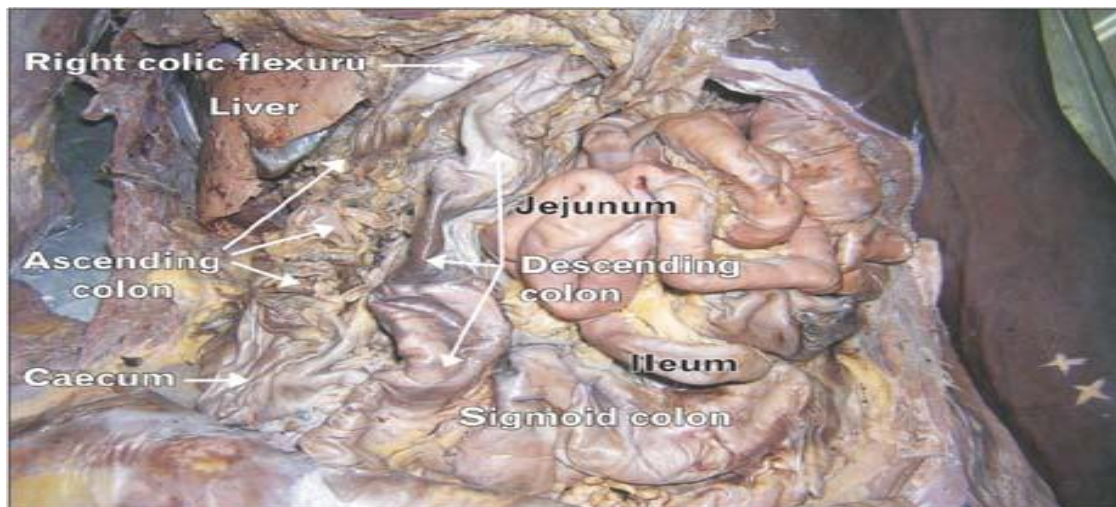


Fig-3: Cadaveric Dissection of Intestine^[7].



Fig-4: Cadaveric Dissection of Small intestine^[7].

DISCUSSION

1) It is a preposition and used to denote decision (*Nischhanyarth*) and rule (*Niyamartha*). While describing *kala*, it is said that as the *duramen* of cores of a piece of wood or stem becomes exposed to view by cutting into it, so the *dhatu*s of the body may be seen by removing the successive layers. These *kalas* are extensively supplied with *snayus* bathed in *jarayu* and encased in *shleshma*. In that sutra, the words *pratichhanna*, *santata*, *vestita* have been used.^[7] These three structures i.e. *snayu*, *jarayu* and *shleshma* can be compared with fibre, serous layer and mucous respectively. From above discussion, the nature of *kala* becomes clear. The *pittadharakala* and *purishdharakala* occupy the part of *mahasrotas* between *amashya* and *guda*. *Pittadharakala* is placed between *amashaya* and *pakvashaya* while *purishdharakala* extends from *pakvashaya* onwards. According to modern view, if we see the nature of *mahasrotas* i.e. gastrointestinal tract, it is found to be made up of four layers 1) Mucous layer 2) Sub mucous layer 3) Muscular layer 4) Serous or fibrous layer. The nature of *mahasrotas* i.e. G.I. tract according to modern view and the nature of *pittadhara* and *purishdharakala* described by *Sushruta* both are similar, Hence *pittadhara* and *purishdharakala* can be attributed with gastro-intestinal tract.

2) *Pittadharakala* is said to be *pakvaamashaya-madhyastha*^[9] and this same organ is called as *grahani*.^[10] To define the *pakvaamashaya-madhyastha* the part of *mahasrotas*, we have to be acquainted with the *pakvashaya* and *amashaya* first. According to *Sushruta*, *amashaya* is the part of *mahasrotas* in which *shleshma* is formed due to *madhurya*, *paichhalydigunas* of food and it is the part of *mahasrotas* situated above the small intestine where food is taken by *aadankarma* of *prana*. It is said to be situated above *pittashaya*. Also site of *pitta* is said to be *pakva-amashayamadhyastha* and this *pitta* is known as *pachakaagni*. *Agni* has natural tendency to go upwards. Function of *pachaka-agni* is to digest the food. Same function is attributed to *pittadharakala*. The site of *pitta* and place of *pittadharakala* is said to be same.

3) It can be concluded that *amashaya* is the part before the small intestine i.e. stomach of modern anatomy. While taking *pakvaamashayamadhyastha* part into consideration, we cannot consider its starting point from the proximal end of the small intestine. Though the site of *pachaka-agni* is *pakva-amashaya-madhyastha*, it has natural upward direction. Hence site of *pittadharakala* is attributed to lower part of the stomach.

When food reaches the *pakvashaya*, it has already been digested and dried by heating action of *pitta* or *agni* and it is transformed into *pindswarupa*. Due to *katu rasa* *vayu-vrudhi* takes

place. In this way remaining part of food is converted into faecal matter in *pakvashaya*. Before the food reaches *pakvashaya*, its digestion has already been completed and all essential elements i.e. „sara“ has been absorbed. That means food reaching *pakvashaya* is totally *paripakva*. Here *malavibhajana* takes place. This type of function takes place in *sthulantra* i.e. in large intestine. Hence *pakvashaya* is the part of large intestine. It is situated in right iliac fossa and start from ileocaecal junction. From above discussion we can come to the conclusion that *pittadharakala* is part of gastrointestinal tract, which extends from lower part of stomach (pyloric part) to ileocaecal junction. The digestive function of small intestine is carried out by the enzymes of succus-entericus secreted in small intestine. When chyme enters the small intestine, the intestinal mucosa secretes enterocrinin, secretin and cholecystokinin. These hormones promote the secretion of succusentericus by stimulating the intestinal glands. The presence of villi and microvilli in small intestinal mucosa increases the surface area of the mucosa. This facilitates the absorptive function of intestine. From the lumen of intestine, these digested substances pass through lacteal villi, cross mucosa and enter the blood directly or through lymphatics.

CONCLUSION

- *Kalasare* said to be *Snayaviya*, *Jarayu* and *Shleshmal*. That means these are fibrous, serous or mucous in nature.
- *Pittadharakala* is also called as *grahani*. Serially *Pittadharakala* is sixth one which is *pakvaamashayamadhyasta*. That means it occupies the part of gastro-intestinal tract which extends from lower part of stomach (pyloric part) to ileocaecal junction.
- *Pittadharakala* correlates with mucous membrane of the part of gastro-intestinal tract which extends from lower part of stomach to ileocaecal junction. That means it is mucous membrane of lower part of stomach and the small intestine.
- *Pittadharakala* has two functions that first are digestion of food and another function is absorption of digested substance.

REFERENCES

1. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 38.
2. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 41.

3. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana chapter 6th shloka 59,63 Page no. 65,66.
4. Charaksamhita by Kashinathshastri published by Chaukhamba Sanskrit Sansthan reprint 1998 Chikitsasthana 15th chapter shloka 2-5, Page no. 452.
5. Ashtangahridaya by Ganesh Krishna Garde published by Gajanana Book Depot Mumbai 7th edition-1983 Nidansthana 12th Chapter shloka 1 Page no.192.
6. Derek C. Allen, Iain R Cameron. Histopathology Specimens: Clinical, Pathological and Laboratory Aspects. 2nd edition, pg 23-27.
7. Cunningham's Manual of Practical Anatomy: Thorax and abdomen. Pg no. 265-267.
8. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 38.
9. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 38.
10. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 38.
11. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan 10th edition 1996 UttartantraAtisarpratishedhadhyayashloka 169 Page no. 237.
12. Yogratnakar by Datto Ballal Borkar published by Yadneshwer Gopal Dikshit 3rd edition-1931 1st part Sangrahanirognidanshloka 3,4 Page no.414.
13. Sushrutasamhita by Ambikaduttashastri published by Chaukhamba Sanskrit Sansthan edition 2012 Sharirasthana 4th chapter shloka 6,7 Page no. 38.