

SHARIRKRIYATMAK ASPECT OF GRAHNI– A REVIEW ARTICLE

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ABSTRACT

Aim of *Ayurveda* is to prevent disease from a healthy person and to cure the disease of the diseased person. *Ayurveda* emphasize more on the usual condition of *Agni*, that is why it has been mention as “*RogahaSarvepiMandAgni*.” The food underwent metabolic alteration by *Agni* and results in preservation of the body tissue elements by their enlargement and repair process. According to Acharya *Charaka*, *Agni* is the head of all the factorand with digestion in the body of all livelihoodbeing. Acharya*Charaka* also state the place of *Agni* is also recognized as ‘*Grahni*’ because it will be given and retain the food. *PachakPitta* supplementary, hold up the mainpurpose of *Grahni* in themetabolism of food, which is bring to this fraction on the way

to *Pakwashaya*. *Grahni* not only help in amalgamation and absorption but also take care of going away of *Sara* and *Kitta*. Any injury of *Agni* will pass on the integrity of *Grahni*. *GrahniRoga* is one of the very usually seen disease in our society, may be since of distorted food habits, socioeconomically state, modern lifestyle and mental state of human beings. The aim of this study is to explain the *Grahni* in its *SharirKriyatmaka* (physiological) aspect. So, that it will be effortless to get ready efficient protocol for diagnosis and management of *GrahniRoga*.^[1]

KEYWORDS: *Grahni*, *Agni*, *SharirKriyatmak*, *Roga*.

INTRODUCTION

Grahni has been described as a *Kosthang*/organ, and counted to be the part of *Annavaha* (digestive system) strotas .*Grahni* is a sole term used as the name of *Kosthang* or a organ when it is balanced in state but can be called as disease if it is not functioning properly. Hence while reading it may create some type of vagueness in student’s mind. Vagbhatta has

agreed a list of some determined (*Mahagada*) disease and *grahni roga* has been built-in in that list. This show the importance of the disease and its analytical aspect is also not approving. Such disease which are inflexible, complicated to delight and are allied with abundant difficulties need a suspicious consideration of the scholarly physicians.

AIM

To see the classical texts to find out the *Sharir Kriyatmak* aspect of *Grahni* in *Ayurveda*.

OBJECTIVES

1. Study of *Grahni* according to unlike Ayurvedic texts.
2. Study the small intestine in its anatomical and physiological feature.

AYURVEDIC ASPECT

- According to *Acharya Sushruta* Sixth Pittadhara Kala is located between Amashaya and Pakwashaya .
- It is the part located above the Nabhi, it is the position of *Agni* and does Grahana of Anna and it is supported and nourish by the strength of *Agni*.
- **Acharyavagbhata**

षष्ठीपित्तधरानामिक्वामाशयमध्यस्था।सापिअंतरग्नेरपधष्ठानतयाआमाशयात्पक्वाशयोन्मुखअन्नं
बलेनपिधाययशोषयपतिचपत्,िक्वचपिमुंचपत्।दोषापधपष्ठतातुदौबयल्यादाममेि।ततोऽसािन्न
स्यग्रिणात्पुनग्रयिणीसंज्ञा। (अ.सं.शा.5/23)

The sixth Kala is named as PittaDhara Kala and it is situated in between Pakwashaya (intestine) and Amashaya (stomach). Being the dwelling of internal fire (digestive activity), it withhold by force, the group of food fabric passing from the Amasaya (stomach) into the Pakvasaya (intestines); digest the food by the heat of Pitta, absorb it and allow the digested food to move further; under the power of decrease action of the Doṣas in attendance therein, it allow even undigested food to go further. Hence this is also recognized *Grahni*, function of *grahni* is to uphold the food. Its power is from Pitta itself, known also as *Agni*. Thus, activate by this fire (like activity) it maintain the wellbeing of the body.

Grahni is located between Amashaya (Stomach) and Pakvashaya (intestine) receives and retains the food for digestion. In *Grahni*, Pittadhra Kala is present. *Grahni* is the seat of *Agni*

and situated above the Nabhi (Umbilicus). *Grahni* is small intestine where main digestive juices are secreted from Liver and Pancreas having properties of the Pachakapitta.

LOCATION OF GRAHNI

The *Grahni* is located in the center of the Amashaya and Pakywashaya. The term '*Grahni*' is derived from the fact that it takes Anna from the Amashaya. It is also known as Pacchyamanshaya, Laghwantra and Kshudranta.

In the 3rd chapter of siddhisthangrahi has been described during the description of vamparshvasthiti in the basthi. C.si.3/24

1. Sushrut has described *grahni* with respect to location of *pitta* which resides in between amashaya & pakavashaya
2. In Shushrutsharirsthangrahi has been described with respect to the pittadharakala.
3. In Sushrutsamhitauttar tantra 40th chapter, purvarupa of *grahni* along with nidanpanchak is described in detail.
4. In the astangasangraha 5 th chapter of sharirsthan of ashtangasangraha, *grahni* is described with respect to the digestion process carried out by the *Agni* situated in the pittadharakala.

The meaning of the word sthana is location. Here it means the location or the site at which *Grahni* is located. The sthana or site of any organ is of prime importance therotically as well as clinically. The word sthana is derived as follows.

Anatomical view:- It is located above the umbilical region and is supported and nourished by the strength of *Agni*.

MEANING OF GRAHNI

Grahni in context is an organ which help in collection and digestion of food.

TYPES OF AGNI

1. **Jatharagni:** 1 depending upon DoshaAdhikya, JatharAgni divided into 4 type
i) Teekshnaagni ii) VishamAgni iii) mandagni iv) samagni
2. **Dhatwagni:** 7
3. **Bhutagni:** 5

SamanaVata is situated close to to *Agni*. It move in the Koshtha, Ama-Pakwashaya i.e., alimentary tract and other abdominal viscera, keeps the ingested food particle in the

alimentary canal for metabolism. After that separate it as the spirit and wilderness and eliminate the waste produce from gudamarga (anus).

The intestine is formed from the cavity created by the *vayu* after the digestion of the essence of rakta and kapha by the pitta. Here the word antra applies to both small intestine (*Grahni*) and Large intestine.^[2-4]

PRAMANA OF GRAHNI

- *Charaka* has suggested the methods of physical examination by which one can judge the proportionate relations, the norms of size, height, length and breadth of different body organs and parts. This method is known as Anjali and *AnguliPramana* method. The dimensional extent of *grahni* (Antra) has been described three and half vyam long in males & three vyams in females.
- The above described dimensions regarding *antra* are applied to both shudrantra (Small intestine) and stulantra (Large intestine).

PACHAKPITTA AND GRAHNI

- Pitta word is derived from 'Tap-santape' dhatu which means to digest, to break, to separate and these all are the functions of pitta.
- As said by shushrutacharya the vital humours Vayu, Pitta and Kapha maintain the integrity of the animated organism by creating, assimilating and diffusing strength in the same way as the moon, the sun and the wind maintain the integrity of the terrestrial globe.
- According to above quotes *Agni* cannot sustain without *pitta*. Residing in the *pittaagni* carries out the digestion process. We cannot imagine an independent *Agni*.

FUNCTION

It is located in between *pakwashaya* and *amashaya*. Though it is composed of *panchamahabhut* because of increase of *Tejasmahabhut* in it, it is devoid of liquidity (i.e. though it is liquid it does not possess snigdha, sheeta and such other properties of mahabhut). It is called by the term '*Anala*' because of its functions of paka i.e. digestion and transformation of food material.^[5]

DISCUSSION

DEFINITION OF DIGESTION

Breaking down of large and complex molecule of food into small and simple molecules for the utility of body cell and synthesis of energy.

Phases of digestion

- Ingestion - *PranaVayu*
- Movement - *SamanaVayu*
- Digestion - *Ushma, Kleda, Sneha and Kala*
- Absorption - *Samayoga*
- Excretion - *Apanvayu*

PHYSIOLOGICAL CO-RELATION OF *GRAHNI* (SMALL INTESTINE)

Physiologically it holds the indigested food for the duration of its digestion before the Kitta or undigested food residue is propelled into the Pakwashaya. The functional importance of small intestine is digestion and absorption. Maximum absorption of food takes place in small intestine. Layer of intestine: Serous, Muscular, Sub mucosa, Mucosa.

First layer: Outer serous layer or outer peritoneal layer made up of tough fibrous tissue which gives protection to intestine.

Second layer: Muscular layer -It is made up of longitudinal and circular fiber. This muscular layer is main responsible layer to the movement like peristalsis.

Third layer: Submucosal layer majority of glands are situated in this layer. Eg.Brunner's gland, simple tubular gland.

GLANDS PRESENT IN INTESTINE

- **Simple tubular gland** - directly open into lumen of intestine
 - A) Enterochromaffin cell (Argentaffin cell) secret intrinsic factor
 - B) Goblet cell- secret mucus
 - C) Panth cell - secret cytokines
- **Brunner's gland** - directly opens to duodenum. Secret mucus and trace of enzymes.

Fourth layer: Mucous layer - innermost layer It is not a plain layer; it is having many folds which comprises villi and microvilli and this layer gets the rich supply of many lymph vessels.

Succus Entericus

- Secretion from small intestine
- Volume 1800 ml/day
- Highly alkaline in nature
- Composition: water 98.5%, solid 1.5%
- Organic substances - proteolytic, lipolytic, amylolytic
- Other organic - mucus, intrinsic factor, defensins
- Inorganic Movement of small intestine

FUNCTION OF SMALL INTESTINE

- Mechanical functions - mixing movement of small intestine are help in the mixing of chyme with the digestive juices.
- Secretion - the succuseintericus, interokines, GI hormones (secritin, cholecystokinin)
- Digestion - digest proteins with the help of proteolytic enzyme (peptidases), digest carbohydrate with the help of amylolytic enzymes (sucrose) and digest fat with help of lypolytic enzymes
- Absorption - the villi and microvilli are increasing the surface area of small intestine the facilitates the absorptive function
- Hemopoetic function - intrinsic factor plays important role in erythropoiesis
- Hydrolytic function - intestinal juice helps in all the enzymatic reactions of digestion.^[6]

GRAHNI ROGA

*Grahni*Roga is ordinary illness in India and also superimposed over a pre-existing *Agni-Dusti*. There is also *Dushti* of *Kledaka**Kapha*, *Pachak**Pitta* and *Saman**Vayu*. It may also occur as a sequel of other disease like *Atisara* (Diarrhea). *Grahni* is precipitated after *Atisara* (Diarrhea). A person who has been relieved of *Atisara* but it still have *MandAgni*, if he takes careless food, it leads to vitiation of *Agni* and then indemnity the organ *Grahni* and let out digested or mal-digested substance.^[7]

CONCLUSION

Grahni which is troubled in function of the bowels and intestines. *Grahni* (small intestine) is the place of *Agni* (digestive fire). Food is supposed here awaiting it is totally digested by *Agni* (or digestive fire). After the food is totally digested, it then pass on to the next part of the digestive tract for amalgamation, but if the *Agni* is feeble, then the foodstuff is not completely digested and pass on in a half digested form. allowing for all these parameter linked to *Grahni* as a organ Dosha, Dusya, *Agni*, Ama, Srotas, Avasthapaka, Vipaka and Bhut*Agni*Paka in proper way in GarahaniRoga is necessary to proceed for flourishing treatment. Hence one should take care of *grahni* of the patient so that other ailments cannot come soon.

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