

CRITICAL REVIEW ON THE CONCEPT OF JATARAGNI

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ABSTRACT

Proper functions of *Agni* (fire) in the body signify good health of the individual while an abnormal state leads to manifestations of diseases. The word *Jatara* means *Udara* (abdomen) and the *Agni* located in *Jatara* is *Jataragni* (digestive fire) and its *Pramana* (quantity) differs in each organism. There are various anatomical structures related to *Jataragni* that contribute towards its normal functioning. The physiological process of digestion and metabolism including biophysical and biochemical changes in the ingested food is carried out by the influence of *Jataragni*. It also influences the status of *Dosha*, *Dhatu* and *Mala* in the body. The objective of this study is to know the anatomical and physiological aspects of *Jataragni* to understand the pathological states in the body.

Keywords: *Agni*; *Jataragni*; *Koshtanga*; *Grahani*.

INTRODUCTION

In Ayurveda, the term '*Agni*' is concerned with the process involving heat. The ingested *Ahara* (food) gets transformed into *Poshaka dhatu* (nourishing tis-

sue) by the influence of *Agni* and this includes chemical agencies responsible for *Aharapachana* (digestion of ingested food), separation of *Sara bhaga* (the

nourishing part) and maintenance of proper metabolism in the body. Impairment in this can be a cause for the manifestation of diseases. *Jataragni* is the one which is located in *Jatara pradesha* (abdominal region) and does *Aharapachana* (digestion of ingested food).

ANATOMICAL ASPECTS OF JATARAGNI

The word *Jatara* means *Udara* and that which is related to *Jatara* is *Jaatarā*¹ and the *Agni* located in *Jatara* is *Jataragni*. Due to the *Sukshma guna* (subtle property) of *Jataragni* its presence cannot be perceived through *Pratyaksha pramana* (inspection) but is inferred through its *Karya* (effect)².

The gastrointestinal tract can be compared to *Koshta* in Ayurveda, and it includes organs present in the

thoracic and abdominal cavity³, organs which has embryological development from it and its functionally specialised part i.e., *Amashaya*(the stomach) - *Ashaya* (site) containing *Apakwa ama anna*⁴, *Pakwashaya* (the large intestine) - *Ashaya* containing *Pakwa Anna* after absorption of *Sara amsha*⁵, *Agniyashaya*(the small intestine) - *Ashaya* located at *Pakwamashaya madhya*, *Mutrashaya* (the urinary apparatus), *Rudhirashaya* (the circulatory and haemopoietic system), *Hrit* (heart), *Unduka* (the caecum) and *Phuphusa* (lungs)⁶.

Koshtanga

Acharya Charaka and *Vagbhata* included visceral organs of the thoracic and abdominal cavity under the term *Koshtanga*.^{7, 8, 9}.

Table 1: Number of *Koshtanga* according to different Samhita

Samhita	Number	Koshtangas
Charaka Samhita	15	<i>Nabhi, Hridaya, Kloma, Yakrit, Pleeha, Vrikka, Basti, Purishadhara, Amashaya, Pakwashaya, Uttaraguda, Adharaguda, Kshudrantra, Sthoolantra</i> and <i>Vapavahana</i> .
Ashtanga Hridaya	12	<i>Hridaya, Kloma, Phuphusa, Yakrit, Pleeha, Unduka, Vrikkau, Nabhi, Dimba, Antra</i> and <i>Basti</i> .
Kashyapa Samhita	13	<i>Nabhi, Pleeha, Yakrit, Kloma, Hridaya, Vrikka, Guda, Basthi, Kshudra antra, Shula antra, Amashaya, Pakvashaya</i> and <i>Vapa</i> .

Grahani

The term *Grahani* can be compared to the entire small intestine commencing from the Pylorus and ending with the ileocecal region. According to *Vaidyaka Shabda Sindhu*, the first part of *Antra* (intestine) is taken as *Grahani*, which is the seat of *Agni* as mentioned by *Charaka* and *Sushruta*. *Acharya Charaka* mentions *Grahani* which is located above *Nabhi* (umbilicus) as *Agni Adhishtana* as it holds the ingested *Ahara*¹⁰ and *Acharya Sushruta* mentioned that the strength of *Grahani* depends on *Agni* and if *Agni* is impaired, *Grahani* gets affected¹¹. In another context, *Acharya Sushruta* has mentioned *Pittadhara kala* as *Adhishtana* of *Antaragni*¹².

Srotas related to gastrointestinal tract - *Annavaha srotas*

It has *Amashaya* and *Vama parshwa* as its *Moola*¹³, and it refers to the channel through which the process

of transportation, digestion, absorption, nourishment and excretion takes place.

Dhamani related to gastrointestinal tract – *Adhoga dhamani*

Ingested *Ahara* which comes in contact with *Pit-tashaya* undergo *Paka* due to the presence of *Ushmata* (heat) and gets segregated, circulates from the *Nabhi, madhya bhaga* of *Amapakwashaya* and reaches the *Hridaya* which is *Rasa sthana* and does its *Poorana* (filling). Later it circulates through *Urdhwaga* and *Tiryak Dhamani* and nourishes the *Sharira*. Thus, does nourishment to the whole *Sharira*¹⁴.

Jataragni Pramana

In *Bhela Samhita*, *Pramana* of *Jataragni* has been mentioned according to the size of the *Sharira* as follows¹⁵:

Table 2: *Pramana* of *Jataragni* according to the size of the *Sharira*

Size of the <i>Sharira</i>	<i>Pramana</i>
<i>Sthoola kaya</i> individual	<i>Yava pramana</i>
<i>Hrswa kaya</i> individual	<i>Trutu pramana</i>
<i>Krimi Keeta Patanga</i>	<i>Vayu pramana</i>

Physiological Aspects of *Jataragni*

The food which is ingested must be transformed into the form which is utilised by the body for nourishment. Such transformation is carried out by the influence of *Agni* i.e., *Jataragni*, *Bhootagni* and *Dhatwagni*.

In *Harita Samhita* it is mentioned that initially, *Pachana* (digestion) of ingested *Ahara* takes place by *Jataragni*¹⁶. The food taken through the mouth is carried by *Prana vata* and *Kledana* (moistening) of ingested *Ahara* by *Kledaka kapha* takes place. Then *Samana vata*, whose *Sthana* is mentioned as *Agnisameepa* holds *Apakwa anna* (undigested food) in *Amashaya* and does *Agni Sandhukshana* (ignition of digestive fire) which plays a role in digestive secretion resulting in *Vibhajana* (breaking down) of ingested food. Now the *Pachaka pitta* which is situated in *Pakwamashaya madhya* does *Pachana* (digestion) and sorts of *Sara bhaga* resulting in separation from *Kitta bhaga* (the excretory part). These *Kitta bhaga* moves downwards for excretion by the action of *Samana vata* and thereby gets expelled out of the body as *Accha kitta - Mutra* (urine) and *Ghana kitta - Shakrit* (faeces) by the influence of *Apana vata*.

The *Sara bhaga* of *Ahara - Ahara rasa* move from *Pakwamashaya* to *Hridaya*, the *Sthana* of *Rasa dhatu* through *Dhamani*. Then by the action of *Rasa dhatwagni*, *Paka* of *Sthoola bhaga* takes place nourishing *Rasa dhatu* and *Sukshma bhaga* reaches *Yakrit* and thereby digestion of the substance by the respective *Bhootagni* takes place i.e., *Pritvyagni* digests *Prithvi mahabhuta pradhana* substances¹⁷, *Apyagni*

digests *Ap mahabhuta pradhana* substances and so on. Thus, causing an increase of *Samana bhavas* like *Parthiva dravyas* contributes to *Parthiva* constituents; *Apya dravyas* contributes to *Ap* constituents in the body. Then the end products of *Jataragni* are processed by *Bhutagni* which undergo *Rasa shoshana* and move towards *Saptadhatus* through respective *Srotas* by the action of *Vyana vata*. In brief, by the respective *Dhatwagni paka*, *Poshaka dhatu* is formed which nourishes *Sapta dhatu* and *Upadhatu*.

Jataragni and *Dosha*

- ***Jataragni* and *Vata Dosha*:** The karma of *Jataragni* is influenced by *Prana*, *Apana* and *Samana vata* for the maintaining of *Dhmapana*, *Palana* and *Swa karma* just like wind acts on fire.¹⁸

- ***Jataragni* and *Pitta Dosha*:** *Sthana* of *Pachaka pitta* is *Pakwamashaya madhya* and its karma is *Anna pachana*, *Vibhajana* of *Sara* and *Kitta bhaga*. It has the predominance of *Tejomahabhuta*, and it enhances other types of *Pitta*. As it does *Pakadi kriya* it is also called as *Anala*.¹⁹

- ***Jataragni* and *Kapha Dosha*:** *Sthana* of *Kledaka Kapha* is *Amashaya* and its *Karma* is *Anna sanghata*.²⁰

Jataragni and *Dhatu*

Due to *Abhojanadi ajeerna nidana* (causes of indigestion), *Dooshita* (vitiated) *Agni* won't be able to digest even the ingested *Laghu ahara* (light food) resulting in the formation of *Visharooma anna* (food with toxic properties). When this becomes severe it combines with each *Dosha* and *Dhatu* resulting in the respective structural and functional abnormalities.²¹

Visharooka anna



Vata dosha ⇨ Vataja rogas.

Pitta dosha ⇨ Daha, Trishna, Mukhamaya, Amlapitta and other Pittaja rogas.

Kapha dosha ⇨ Yakshma, Peenasa, Meha and other Kaphaja rogas.

Dhatu ⇨ Respective Dhatu pradoshaja vikaras.

Factors affecting Jataragni

- **Ahara matra:** Matra of consumed Ahara affects Jataragni pravritti. So, Ahara should be consumed in a proper manner avoiding Asamyak yoga i.e., Sankeerna ashana (contaminated food), Viruddha ashana (incompatible food), Amatra ashana (food consumed not in accordance with prescribed quantity), Vishamashana (food consumed in inadequate quantity in improper time), etc.

- **Ahara dravya:** Properties of Ahara dravya affects the function of Agni. Example: Guru Dravya (heavy food substances) takes comparatively longer time to get digested.

- **Ahara sevana Kaala:** Food should be taken at a proper time i.e., after the digestion of a previous meal. If not, it may lead to the formation of Ama due to Jataragni mandya which later results in the manifestation of various diseases. It is also said that drinking water prior to meal lead to Krishata (emaciation) and after meal leads to Sthoulya (obesity).

- **Manas:** It plays an important role in maintaining the status of Jataragni i.e., the status of mind in an individual with Chinta, Shoka, Bhaya, Krodha, etc. results in Agnimandya.

- **Vihara:** Routine activities like Vyayama, Snana have an impact on Agni i.e., it increases the capacity of digestion.

- **Rtu:** In Hemanta and Shishira rtu, Agni will be Prabala and in Greeshma rtu, Alpa bala.

- **Vikara:** Mandagni is said to be the root cause for almost all diseases.

Clinical Significance of Jataragni

Ingested Ahara undergo Jataragni paka initially then Dhatwagni and Bhutagni paka take place at a later

stage and these two are directly or indirectly dependent on Jataragni. Therefore, proper Jataragni is important for maintaining the Ayu and Bala of an individual.²² The strength of Jataragni depends on the status of Grahani and impaired Jataragni affects Grahani leading to various diseases. Jataragni is responsible for Ayu, Varna, Bala, Swastha, Utsaha, Upachaya, Oja, Teja, Agni and Prana.²³ Normal functions of Agni helps in proper physiological activities while abnormal state leads to disease manifestation and its absence causes death of the living beings.

Jataragni is classified into four types based on its digestive capacity. They are:

1. Samagni
2. Vishamagni
3. Teekshangni
4. Mandagni

1. **Samagni** - The Agni which digests the ingested Ahara taken in proper time without causing any discomfort is called Samagni. In this state of Agni, all Tridosha are in equilibrium and result in proper nourishment of the Dhatus and diseases caused in such individuals are considered to be Sukha sadya²⁴ as the Agni does Dosha pachana, brings the vitiated Dosha to normalcy and thus help in gradual attainment of strength and maintain longevity.

2. **Vishamagni** - The Agni, which is irregular, which sometimes causes proper digestion and sometimes leads to symptoms like Adhmana (bloating), Shula (pain), Udavarta (a disease caused due to upward movement of Vata), Atisara (diarrhoea), Jatara gaurava (heaviness in the abdomen), Antra koojana (gurgling sound in the abdomen) and Pravahana

(straining on defecation). This state of *Agni* results due to the influence of *Vata dosha*.²⁴

3. **Teekshnagni** - The *Agni* digests the ingested food at a faster pace even if the food is taken in excess quantity i.e., it digests the heavy meal in a very short time. This can be seen in *Pitta prakriti* individual. *Teekshnagni* is of three types namely *Ashupachana*, *Atyagni* and *Teekshnatamagni*. It produces symptoms at the end of digestion like *Gala shosha* (dryness of throat), *Talu shosha* (dryness of palate) *Oshta shosha* (dryness of lips), *Daha* (burning sensation) and *Santapa* (raised temperature). It can be seen in diseases like *Bhasmaka roga*, *Prameha*, etc.²⁴

4. **Mandagni**- The *Agni* which takes longer time for digestion of even a limited quantity of food is called *Mandagni*, and it produces *Udara* (abdominal distension), *Shiro gaurava* (heaviness in the head), *Kasa* (cough), *Shwasa* (dyspnoea) ²⁴. It is said that *Mandagni* is the cause for all diseases. When the ingested food is not digested properly or takes longer time, it leads to the formation of *Ama* in *Koshta* which later results in depletion of other types of *Agni* thereby affecting the nourishment of *Saptadhatus* and causing various diseases. It is observed in conditions like *Jalodara* (ascitis), *Gulma*, *Grahani*, *Atisara* (diarrhoea), *Rasa pradoshaja vikara*, etc.²⁴

DISCUSSION AND CONCLUSION

Agni possessing *Ashtamahaishwarya guna* is *Pit-tashrita* i.e., it is located in the *Sthana* of *Pachaka pitta-Pakwamashaya madhya* and *Dahana karma* of *Agni* is a continuous process but being *Sukshma*, its functions can be perceived only through *Anumana pramana*. *Agnidushti* is caused due to the vitiation of *Dosha Dushya* by various factors like faulty food habits and activities followed by the individual. During *Amla Avasthapaka* taking place in *Amashya* which is predominant of *Pitta dosha*, if *Guru ahara*, which may be *Matravat guru* [light food substance taken in large quantity example: *Mudga* (green gram) in large quantity] or *Gunavat guru* [food substances which are heavy to digest example: *Masha* (black gram)] are taken, process of digestion becomes slow and partially digested *Ahara* retains in the *Amashaya*

for longer duration along with gastric juice which in turn causes *Vidaha* (burning sensation) in the chest and abdomen. Hence it is said that *Mandagni* is also the cause for *Vidaha*. So history of patient should be well understood before planning the treatment for the disease. In the context of *Shodhana* (purification therapy), it is necessary to bring the vitiated *Dosha* from all over the body to *Koshta* for expulsion. For this purpose, *Snehana* (oleation) and *Swedana* (sudation) is performed and prior to the internal *Snehana* therapy, *Koshta* and *Jataragni* of the individual should be assessed to fix the dosage of *Sneha Aushadha* suitable to that particular individual and even during the administration of *Shamana Aushadha* (palliative medicines), these are given prime consideration. *Grahani* is the *Sthana* of *Agni* and its impairment results in various diseases like *Ajeerna*, *Alasaka*, *Visuchika*, *Grahani*, *Dhatu kshaya*. Impairment of *Grahani* may present with the symptoms of malabsorption taking place in small intestine which in turn causes nutritional deficiency in the individual or excess production of digestive enzymes when there is insufficient food to be acted upon by *Jataragni*, it acts on the tissues of the gastrointestinal tract and later resulting in *Dhatu paka*. If there exists a defect in secreting cells of digestive enzymes, digestion process becomes slow due to insufficient enzymes leading to *Mandagni*. *Jataragni* converts the consumed *Ahara* into *Ahararasa* which after reaching the *Hridaya* gets transformed into *Rasa dhatu*. Duly formed *Rasa dhatu* nourishes all other *Dhatu*s directly or indirectly resulting in the good health of the individual. Any impairment in the status of *Jataragni* leads to impairment in other *Agni* too, causing various diseases of respective *Dhatu*s. So, status of *Jataragni* should be maintained by following proper dietary regimens.

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