



## REVIEW ARTICLE

### A CONCEPTUAL STUDY OF *JATHARAGNI*

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## ABSTRACT

*Ayurveda* being a holistic science is treasure of measures of life, health and diseases. The fundamental principles of *ayurveda* laid down thousands years back are being explored and analyzed again for better understanding and their practical utility. In *Ayurveda*, *Agni* (digestive fire) is a fundamental concept governing metabolism, digestion, and overall health. *Agni* has an important role in maintenance of health as evident in definition of health. Among the 13 types of *Agni*, *Jatharagni*—located in the stomach and duodenum—plays a central role in the digestion and assimilation of food. It is responsible for breaking down food substances and transforming them into essential nutrients and bioenergy. The state of *Jatharagni* determines the balance of *Doshas* (*Vata*, *Pitta*, *Kapha*) and influences an individual's overall well-being. This conceptual study explores the nature, functions, types, and regulatory mechanisms of *Jatharagni*, along with its physiological and pathological significance. The four classifications of *Jatharagni*—*Vishamagni* (irregular), *Tikshnagni* (intense), *Mandagni* (weak), and *Samagni* (balanced)—are discussed concerning their impact on digestion and health. Additionally, the study examines the interplay between *Jatharagni* and *Dhatvagni* (tissue metabolism) in maintaining homeostasis. Derangements of the same leads to many diseases. An imbalance in *Jatharagni* is linked to various gastrointestinal disorders, metabolic dysfunctions, and systemic diseases. Hence, it is an important factor for vitality, maintenance of life and health.

**Keywords:** *Ayurveda*, *Jatharagni*, *Agni*, Digestion, Metabolism, *Doshas*, Health.

## INTRODUCTION

*Ayurveda* being a holistic science is treasure of measures of life, health and diseases. The fundamental principles of *ayurveda* laid down thousands of years back are being explored and analyzed again for better understanding and their practical utility. One of such principles is concept of *agni*. *Agni* has been said among *karana dravyas* which are the causal factors for genesis of other factors<sup>1</sup>. *Agni* has an important role in maintenance of health as evident in definition of health<sup>2</sup>. As per *Acharya Charaka ayu* (life), *varna* (luster, complexion), *bala* (physical and mental strength), *swasthya* (health), *prana* (vitality), *uthsah* (capacity to do difficult tasks), *upchaya* (nourishment of the body), *prabha, oja* (immunity), *teja* (vital radiance), *dhatvagni* and *bhutagni* are all dependent upon *dehagni* or *jatharagni*. In the absence of *agni* human being perishes and in its balanced state he remains to be in a state of good health. Derangements of the same leads to many diseases. Hence, it is an important factor for vitality, maintenance of life and health<sup>3</sup>.

As per the status of *doshas* in body or the *prakriti* of an individual the *agni* has been classified as *samagni*, *vishmagni*, *tikshagni* and *mandagni*. *Samagni* is in the balanced state of all *doshas* and it is a parameter of health too<sup>4</sup>. *Vishmagni* is in the condition of predominance of *vata dosha*, *tikshanagni* is in the condition of predominance of *pitta dosha* and *mandagni* is in the predominance of *kapha dosha*. *Samagni* leads to the health and *vishmagni*, *tiksnagni*, *mandagni* are responsible for development of diseases. *Acharya Vagbhata* has mentioned that all the diseases arise due to *mandagni*<sup>5</sup>.

## AIMS & OBJECTIVES

To analyze the concept of *Agni* described in classical texts and to determine its action in various states.

## MATERIALS AND METHODS

For conceptual study *Charaka Samhita*, *Sushrut Samhita*, *Ashtanga Hridaya*, etc and their commentaries were explored and analysed. The related matter was studied verse to verse. The available PG and Ph.D. dissertations, related books, reputed journals and information on the

subject from the available online sources were also studied systematically to make out rational outcome. a feature/criterion of *swastha purush* by *Sushruta*<sup>6</sup>. *Acharya Charaka* has mentioned the status of *agni* as *sampakta* (balanced state of *agni*), *samjara* (proper digestive capacity) in the characteristics of *swastha purusha*<sup>7</sup>. The assessment of *agni* has been mentioned as *ahara shakti pariksha* by *Charaka* in *dashwidha pariksha* described to assess *ayu* and *bala* and *dosha pramana* of an individual. The *agni* is assessed or examined by *abhyaharana shakti* and *jarana shakti*<sup>8</sup>. The *abhyaharana shakti* refers to the hunger and appetite and *jarana shakti* means the capacity to digest the food. The method used for this assessment is *anumana pariksha*<sup>9</sup>.

The symptoms of 4 types of *agni* or the assessment parameters are described by *Sushruta* in a detailed manner. *Charaka* and its commentators have given a brief introduction of the symptoms. *Vagbhata* has a bit different opinion regarding symptom of *agni*. So, designing a questionnaire for each state of *agni* was a difficult and challenging task.

*Agni* is influenced by age, *bala*, *prakriti*, *ritu*, *vyayama* etc. So, it is very difficult to assess it. Hence, a general approach regarding the symptoms was used.

*Agni* is the most essential factors contributing to health of an individual. The main function of *agni* is to digest and metabolize the various components of food and ultimately nourishment of the body.

### **1. Classification of Agnibala/Agni**

- As per the strength of the *agni* it has been classified as *utkrishta*, *madhyama* and *alpa bala*. *Utkrishta agnibala* lead to quick digestion and absorption whereas *alpa (avara) agnibala* is responsible for very slow digestion and absorption.
- According to location and substrates of *agni*, it has been classified into three types i.e. *jathargni*, *bhutagni* and *dhatvagni*. *Jatharagni* acts on the food in the digestive tract and converts it into absorbable form. *Bhutagni* which are specific, act on the five basic constituents of the absorbed food i.e. *prithvi* (earth), *jala* (water), *agni* (fire), *vayu* (air) and *akasha* (space). The *bhutagni* transforms the substrate in to such form that can be assimilated at tissue level. *Dhatvagni* also act at tissue level and help in the process of *dhatu nirmana* or tissue building. *Charaka* has clearly mentioned that *dhatvagni* and

*bhutagni* are dependent on *jatharagni*. So, if there is diminution of *bhutagni* or *dhatvagni* (*dhatwagnimandya*) the treatment of *jatharagni* should also be done taking care of the particular *dhatu*<sup>10</sup>. *Yoginder Nath Sen* commenting upon the concept considered *bhutagnis* and *dhatvagnis* as part of *jatharagni*. *Sushruta* has not mentioned the word *dhatvagni* in his treatise clearly.

- *Bhutagnis* do selective disintegration. *Dhatvagnis* do selective synthesis of particular *dhatu* by taking particular constituents from the nutrient pool.
- Depending upon the *dosha* status, the states of *agni* are categorized as *samagni* (regular), *vishmagni* (irregular), *tikshnagni* (intense) and *mandagni* (weak). *Tikshnagni* digests even a very heavy meal in a very short period of time. *Mandagni* behaves opposite to *tikshnagni*. This type of *agni* is unable to digest and metabolize even small quantity of food. *Vishmagni* is very unpredictable and irregular type of *agni*; sometimes it quickly digests the food and sometimes it digests very slowly. *Samagni* is a balanced state of *agni*. It completely digests the food in proper time and without any irregularity. It is neither very weak nor very strong but *samagni* get affected by improper diet and inappropriate eating habits<sup>11</sup>. This particular type is a parameter of assessment of health.

## 2. Physiological Factors Affecting Agni

- The *prakriti* of an individual give a clue about the state of *agni*. *Kaphaja prakriti* person usually have *mandagni* that's why they have small quantity of food, may take time to digest the food, they may be little slow in their activities. *Pittaja prakriti* individual possesses comparatively good strength of *agni*, his hunger is very good and he can have large quantity of food frequently. *Vataja prakriti* person shows irregularity, it has uncertainty about the strength of *agni* i.e. sometimes weak sometimes good. So, one should take food according to his *prakriti* and considering *agni* status<sup>12</sup>.
- In middle age or young age, it is highest as compared to childhood phase and old age. It is the reason behind use of *rasayana* therapy in middle or young age. The physical and mental strength is also very high which is also dependent upon *agnibala*. Thus, the physician may have wide variety of drugs for the treatment of the diseases in this phase of life. In old age gradual diminution of *agni* is seen leading to demise. Correction of *agni* should always be kept in mind while treating old age individuals.

- *Agni* performs best in second *prahara* of the day i.e. before noon and first *prahara* of night i.e. evening. Hence, meal should be taken at this time.
- *Agnibala* is very strong in *hemanta* and *shishira ritu* i.e winter season<sup>13</sup>.
- and lowest in *varsha ritu* i.e. rainy season<sup>14</sup>. In *grishma* (summer)<sup>15</sup> and *sharada* (autumn) season also, it should be taken care of by choosing proper diet
- Diet in relation to *agni* should be considered from two points of view
  - i. Type and quantity of diet
  - ii. Rules of dietetics

*Guru* diet diminishes the *agni*, *laghu* type of diet increases *agni*. The quantity of one's diet depends upon the *agnibala*<sup>16</sup>. If the *agnibala* is good the quantity will be more. The dietary habits for e.g. taking food in time, taking hot and unctuous food, taking beneficial food, taking fresh food, and taking food in cool and calm state of mind increases the *agni* and in opposite factors like irregular meals, cold and dry food, stress, anxiety decreases the *agnibala*. Excessive fasting, over eating, irregular eating, heavy, cold, preserved, dry, dehydrated, putrid food, excess liquid intake also vitiates *agni* and either make it *manda* or *vishma* leading to manifestation of diseases later on<sup>17</sup>. Dietetic incompatibility i.e. diets not compatible to habitat, climate, body constitution also affects *agni*.

This is the reason behind a rise in metabolic, endocrinal and lifestyle disorders. Junk food, cold and preserved food, food processed in microwave and low-quality utensils are a trend commonly seen in society.

- Others Factors Affecting *Agni* are sedentary life style and excessive sleep which decreases *agni*. Suppression of natural urges, unhygienic habits also vitiate it.

### 3. *Agni and Pitta*

Heat of *pitta* is because of *agni*. *Pachaka pitta* is actually responsible for digestion which is said as *pachakagni* by *Sushruta*<sup>18</sup>. It resides in *grahani* and performs its action of digestion there. The *agni* contributes to and augments the functions of other *agni* found elsewhere in body. *Pitta* has actually two components, *tejas* and *drava*. The *ushma* of *pitta* is *tejas*. When *drava guna* of *pitta* is increased it leads to *agnimandya* as seen in *pittaja* type of *atisara*. When it is decreased the *ushma* or *teja* becomes dominant leading to decrease in *sneha guna* and resulting

in dryness in body as seen in *jirna jwara*. So, the treatment of such conditions should be done by understanding the pathogenesis of disease properly. *Agni* has been considered under *pitta* in body.

#### 4. Assessment Parameters of Strength of *Agni*

Most of these parameters come under the characteristics of *samagni*, *vishmagni*, *tikshnagni* and *mandagni* except *jiwha pariksha* and *mutra pariksha*. The symptoms of four types of *agni* are made in the form of questions and given 0 and 1 score for absence and presence of particular symptom in routine. The functioning of *Agni* and its outcomes are very much subjective. So, a “Self-assessment questionnaire” was designed for estimating the strength of *Agni*. This questionnaire was chiefly designed on the basis of classification of *agnibala* (strength) as described in *Charaka Samhita* (*chikitsa sthana, chapter 15 and vimana sthana, chapter 6*) and *Sushruta Samhita* (*sutra sthana chapter 35*). These verses clearly describes the 4 functional states of *jatharagni*, namely, *samagni*, *vishmagni*, *tikshnagni* and *mandagni*. The tool contained four domains relating to each type of *agni* each having 12 questions with options YES/NO for presence or absence of symptom. Total scores were calculated in respective domains and subsequently the scores were converted into percentage for further statistical analysis. The status of *agni* in an individual was decided on the basis of maximum percentage scores obtained under the different categories of *agni*.

##### i. *Dhatu Poshana*

The *ayurvedic* concept of *dhatu poshana* (nutrition pathways) should be actually understood as various metabolic reactions taking place in our body. The *ayurvedic* concepts of *prasada paka* and *kitta paka* are anabolic (building up) and catabolic (breaking down) pathways respectively. And these metabolic reactions help to maintain the body's well-being. The action of different *dhatvagnis* at various levels of *dhatu parinama* process can be correlated to an extent with the modern concepts as follows.

- ***Rasa dhatvagni***- Glucose metabolism, circulation in portal vein, formation of WBC
- ***Raktadhatvagni***- Hemopoiesis, iron metabolism, protein metabolism
- ***Mamsadhatvagni***- Protein metabolism
- ***Medodhatvagni***- Lipid metabolism

- **Asthidhatvagni**- Ca and P metabolism, thyroid & parathyroid control
- **Majjadhathvagni**- Protein metabolism, iron metabolism, hemopoietic and erythroclastic activity
- **Shukradhatvagni**- Glucose metabolism, protein metabolism, vitamin E metabolism.

The metabolic disorders should be treated taking into consideration the particular *dhatu* and *dhatwagni*.

## ii. **Agni and Production of Various Types of Diseases**

It is evident from the literary review that *agni* is responsible for health and disease. If *agni* gets vitiated it leads to diseased condition in the body. As described by *Vagbhata* all diseases are caused due to *mandagni* specially *udararoga*, *arsha*, *atisara*, and *grahani*.

Actually, *agni* is involved in almost each and every disease whether it is at the level of *jathara* or *dhatu*. The diseases like *prameha*, *sthaulya*, *shotha*, *rajyakshama*, *pandu* are due to *dhatvagnimandya*. When *agni* becomes weak, the number of unwanted by-products of digestion are produced which are known as *ama*. This *ama* further on stasis in body attain toxic qualities, vitiate *doshas* and lead to increased permeability and sluggishness of *strotsa* i.e. *strotorodha*. This *strotorodha* or blocking of channels is one of the main factors in production of diseases. The whole pathological process inhibits further process of digestion and absorption thereby causing various diseases like *hrilasa*, *chardi*, *amalpitta*, *visuchika*, *alasaka* etc. Further the *ama ahara rasa* crosses the intestinal villi and enters the circulation i.e. *sukshma ama* impairs the *bhutagni* due to *guruvadi* properties and reduces its functions. Due to *bhutagni* impairment the *vijatiya ahara rasa* is not able to become *sajatiya* and acts as antigen in circulation which can cause diseases like allergic disorders. When reaches the level of *dhatu* then this *ama* causes *madhumeha*, *medoroga*, *vatarakta* and *amavata*. All hormonal and enzymatic activities like hypothyroidism may also considered to occur due to hypo functioning of *dhatvagni*. Hence, most of the diseases like gastro-intestinal, allergic, autoimmune disorders and various metabolic disorders have the main causative factor as hypo-functioning of *agni* and formation of *ama*. This involvement of *agni* is in the form of mainly *mandagni* but *vishmagni* and *tikshnagni* are also a cause of diseases. For example, *gulma*, *anaha*, *adhaman*, and *pakshaghata* are because of *vishmagni*. *Atyagni*, *bhasmaka roga*, are because of *tikshnagni*. This can be understood as in the

case hyperthyroidism. So, the line of treatment of these diseases should be as per the type of *agni*. For example, the use of *pachana* drug and *deepana* drug to digest the *ama* and improve the strength of *agni* should be there. In case of *vishmagni deepana*, *pachana* drugs processed with *ghrita* or oils should be incorporated. The diet and medicines have been described in literary review.

### iii. Role of Classical Methods of Research in Present Research Work

It is obvious that *aptodesha*, *pratyaksha*, *anumana*, and *yukti* are four classical methods (*pramana*) which are helpful in getting true knowledge about anything.

- *Aptodesha* refers to all the statements made by *acharyas* of *ayurveda* and other sciences.
- *Pratyaksha* is direct perception with the help of five sense organs.
- *Anumana* is logical inference of something based on *aptodesha* and *pratyaksha*.
- *Yukti* is getting knowledge by analysis of facts, keeping into consideration the multiple factors.

In the present research work the literature review is based on *aptodesha pramana*. The administration of questionnaire and hence diagnosis of particular type of *agni* was based on *anumana pramana as prashana pariksha*. There were no particular *pratyaksha* observations in this research work except general examination of the volunteers. The analysis of the concepts, findings and statistical results was done through *yukti*.

### iv. Practical Application of *Siddhanta of Agni*

It is very important principle. The assessment of *agni* gives the direction how to remain healthy and it can be done by someone at his own level. When an individual is diagnosed as *samagni*, *vishmagni*, *mandagni* or *tikshmagni*, he should follow some do's and don'ts. *Samagni* is to be maintained in the similar condition. The other *agnis* should be treated as per the symptoms.

#### Do's or Don'ts

##### i. *Samagni*-

- Diet in proper quantity as per the requirement of body and as per the age, season, *satymaya* and *prakriti* should be taken. He should maintain exercise in routine.

- One should avoid the faulty diet as much as possible. Anxiety and stress are also to be avoided.

**ii. Vishmagni –**

- As it concerned with *vata dosha* and common symptoms are distension, irregularity in digestion etc. one should try to identify the diet and other factors which can be responsible for this irregularity in digestion and avoid those. He should incorporate *ushna*, *snigdha ahara* (*ghrit*, milk) in his diet. If the condition is severe then he should go for use of *avgahana*, *abhyana*, *swedana* and use of medicated *ghrita* and oils.
- He should avoid irregularity in meals, dry and cold food, inadequate quantity of food, suppression of natural urges, excessive exercise and stress etc.

**iii. Mandagni –**

- It is of great concern with regard to diseases. *Mandagni* individual should have use of spices in preparation of food regularly. Some *deepana*, *pachana dravya* like *trikatu*, *panchkola*, *hingwashtaka churna* etc. should be used according to the need or as advised by the physician. Regular use of buttermilk is of utmost importance.
- The *mandagni* individual should always avoid faulty diet and food in large quantity particularly *abhisyandi* and *guru ahara* (junk food).

**iv. Tikshnagni-**

- The *tikshnagi* individuals should have cereals, vegetables and fruits in large quantity in major meal and for untimely hunger. Use of hot or *sheetashrita* water is beneficial in case of dryness of mouth and throat and excessive thirst. Preparations of milk like *kheer*, sweets can be given in *bhasmaka* disease. In the presence of symptoms like *daha*, *amlodgara*, he should go for *pitta shamaka* remedies like use of *madhura*, *tikta*, *kashaya* and *sheet* kind of food.
- He should always avoid very hot, spicy and junk food.

### Common indications for all

- The diet should always be taken as per the *prakriti*, age, exercise, season and other factors.
- Over thinking, fasting, stress and anxiety should be avoided as much as possible.
- Meal should be taken at regular time taking into consideration the complete digestion of food. If previously taken food is not digested and there is a feeling of heaviness, laziness and other symptoms of digestion, then the meal should be skipped.

### CONCLUSION

The assessment of *Agni* is crucial for evaluating overall health, longevity, strength, and immunity, extending beyond just digestive system evaluation. *Samagni* maintains health in healthy individuals, while the other three types of *Agni* contribute to disease development. Diseases can result from both *Jatharagni* involvement and *Dhatvagni Mandya*. *Jatharagni* plays a vital role in maintaining other *Agnis*, particularly *Dhatvagni*. Proper assessment and treatment of *Agni* are essential for successful disease management, as it is involved in almost every disease at either the *Jathara* or *dhatu* level. Conditions like *Prameha*, *Sthaulya*, *Shotha*, *Rajyakshma*, and *Pandu* are attributed to *Dhatvagnimandya*. Weak *Agni* leads to the production of *ama*, which causes diseases. Assessing *Agni* is of paramount importance in Ayurvedic practice for maintaining health and treating diseases effectively.

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