



## **An Overview of Rasa Dhatu – Literary Review**

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### **Abstract:-**

*Rasa* is an important and primary *Dhatu* (tissue) formed in the body after digestion of ingested food. After proper metabolic process the food materials changes into *Anna-Rasa*. With the help of *Rasa Agni* it converts into *Adhya Rasa Dhatu*. It helps the formation and nutrition of the other *Dhatu*s of the body. The *Rasadhatu*, being made up of the element water, has similar qualities with *Kapha*. *Rasa Dhatu* has qualities very similar to *Kapha Dosha*, which is made up of *Jala* and *Prithvi*. Two types of *Rasa-Dhatu* are present in the body, one is *Sthayi Dhatu* and another is *Poshaka Dhatu*. Heart is the main seat of the *Rasa Dhatu*. With the help of *Vyana Vayu* *Rasa* is transported to the entire parts of the body by *Rasavaha Srotas*. As this is the only *Dhatu* which is having circulating nature all over the body, taking *Rakta* along with it, it can act as a medium for healthy maintenance of the body and if vitiated causes diseases. Some of the most common and important problems arise when a person becomes *Sthool* or *Krish*, it is due to the *Rasa Dhatu* as well. In the formation of the *Dhatu*s, *Kapha* is the *Mala* (waste product) produced during formation of *Rasa Dhatu*. The quality of the *Rasa Dhatu* is dependent upon the health of *Agni*, or digestive fire. By some causative factors of *Strotodushti*, *Sroto Sangh* (blocked) occurs which leads to *Rasa Kshaya*. Due to depletion of *Rasa Dhatu* some features like *Hritpida* (Chest pain), *Kamp* (Palpitation), *Shunyata* (Emptiness of heart) *Tamyati* (Tiredness on slight exertion), *Spandan* (Palpitation), *Trishna* (thirst), *Sahate Shabdamna* (the person becomes intolerant to loud sound) are found. *Rasavridhi Lakshanais* similar to *Shleshma Vriddhi Lakshana*. They are as follows, *Agnisadana*, *Praseka* (Increased salivation) *Aalasya* (Laziness), *Gaurava* (Heaviness), *Shvaitya* (Pallor), *Shaitya* (Coldness), *Slathangata* (Laxity of organs), *Shvasa* (Dyspnoea), *Kasa* (Cough) and *Atinidrata* (Excessive sleep).

**Keywords:-** *Rasa Dhatu, Poshaka Dhatu, Strotodushti*



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**Introduction**

*Tridosha, Saptadhatu* and *Trimala* are the basic concepts of *Ayurveda*. *Vata, Pitta* and *Kapha* are the *Tridoshas*. *Rasa, Rakta, Mamsa, Medas, Asthi, Majja* and *Shukra* are the *Saptadhatu*, *Mutra, Pureesha* and *Sweda* are the *Trimala*. The word '*Dhatu*' comes from a verb '*Dha*' which is having the meaning 'to support (*Dharana*) and to nourish (*Poshana*)'<sup>1</sup>. It is the one which supports body, mind and life. They are seven in number (*Rasa, Rakta* etc.)*Rasadhatu*, first among the *Saptadhatu* and it is having prime importance of all *Dhatu*, as it is formed out of *Ahararasa* (essence of food) after *Saarakitta Vibhajana* (metabolic transformation). It is supposed to nourish the all other *Dhatu*. *Rasadhatu* and *Ahara Rasa* are different entities. *Rasadhatu* is the more transformed form of *Ahararasa* with an ability to nourish all other six *Dhatus*. '*Dhatu*' which is being continuously circulated in the body is called as *RasaDhatu*.

**Synonyms of Rasa Dhatu**

- *Ahaara Prasada/Teja* (essence portion of *Ahaara Rasa*)
- *Asrikkara* (blood former)
- *Agni Sambhava* (formed out of *Agni*)
- *Dhatu Sara* (fundamental *Dhatu*)
- *Sowmya Dhatu* (*Ap Mahabhuta PradhanyaDhatu*)



### **AIMS AND OBJECTIVES:-**

- To study the concept of *Rasa Dhatu* as mentioned in our classical texts.

### **MATERIALS AND METHODS:-**

- All classical texts available in Ayurvedic Literature were reviewed.
- Various research articles and manuscripts on *Rasa Dhatu* were thoroughly reviewed.

### **LITERARY REVIEW**

#### **➤ Physiological aspects:**

From *Rasa* body takes birth. Formation and development of foetus, its maintenance (continuance of life activity), growth and non-attachment from sensual activities are done by *Rasadhatu*. *Shukra* and *Artava* combine to form embryo (*Garbha*). *Artava* is produced verily from *Rasadhatu*<sup>2</sup>. Its composition in the formation of embryo plays an important role in the sex determination also. It is the *Dhatu* which can nourish, develop and maintain all other *Dhatu*. The quality of *Rasadhatu* depends upon food intake. *Rasa* provides fluidity to circulating *Rakta*; it is the fluid that carries dissolved nutrients. Salts and sugar are the most important among nutrients. As a result, taking nutritional fluid is the best way to replenish *Rasa*. The *Rasadhatu*, being made up of the element water, has similar qualities with *Kapha*. *Rasa dhatu* has qualities very similar to *Kapha Dosha*, which is made up of *Jala* and *Prithvi*. In the formation of the *Dhatu*s, *Kapha* is the mala (waste product) produced during formation of *Rasadhatu*. *Ahararasa* is a pure and minute essence of well digested food. It is the nutrient and precursor for all the other *Dhatu*. It is formed from 4 types of food composed (*Ashita*, *Peeta*, *Khadita* and *Lehya*) of Five *Mahabhutas*, 6 tastes, 2/8 *Viryas* (*Sheeta- Ushna* or *Snigdha- Ruksha*; *Vishada- Picchila/ Guru- Laghu*; *Mridu- Teekshna*) and many other properties. *Rasadhatu* is formed from this *Ahararasa*. The consumed *Ahara* gets digested under the action of *Jatharagni* (digestive fire) and *Bhutagni* in *Annavaha Srotas* (channel for transportation of food) and it will be differentiated into *Sara* (*Annarasa*/useful portion) and *Kitta Bhaga* (*discardable portion*). Under the action of *Rasadhatwagni* and *Bhutagni* in *Rasavaha Srotas* *Annarasa* will be differentiated into *Sthulamsha* (*Poshya* or major) and *Sukshmamsha* (*Poshaka*/ minor). *Sthulamsha* will nourish the *Rasadhatu proper*, whereas *Sukshmamsha* will further lead to the manifestation of *Raktadhatu* under the

action of *Rakta Dhatwagni*, *Rasa Updhatu* (*Stanya* and *Artava*) and *Mala* (*Kapha*). *Rasadhatu* is predominantly composed of *Jala Mahabhuta*.

- **Sthana of Rasa Dhatu** *Hridaya* is considered as the main *Sthana*.<sup>3</sup>
- **Time taken for the formation** of *Rasadhatu* from *Ahararasa* is 24 hours.
- **Quantity** its quantity is 9 *Anjali* (1764 ml).

It is of 2 types:

**a. *Sthayee* (*Poshya*)**

It is stationary one, make up the structural architecture of the body and exist in material form. Continuously undergo construction and destruction maintaining a state of dynamic equilibrium (*Swasthyam*).

**b. *Asthayee* (*Poshaka*)**

It is the circulating *Dhatu*, comprise the nutrient substances, which form the precursors of *Poshya Dhatu*.<sup>4</sup>

The formed *Rasadhatu* from *Rasavaha Strotas* will be taken to *Hridaya* by *Samana Vata*, from there it enters 24 *Dhamani*, which passes 10 upward, 10 downward and 4 laterally.<sup>5</sup> It circulates all over the body simultaneously and continuously with the help of *Vyana Vayu*, which stimulates the process of circulation by its nature. This can be compared with waves of sound, like fire and water. Gratification, satisfying and nourishment of *Rakta Dhatu* are the function of *Rasa Dhatu*.

- **Functions of Rasa Dhatu**<sup>6</sup>
  1. *Tarpana*- Saturates persons of all ages
  2. *Vardhana* :- Promotes development of child
  3. *Dharana & Jivana*:- Sustains adult with fully developed *Dhatu*
  4. *Yapana* Maintains old with deteriorating physique
- *Upadhatu*<sup>7</sup> *Stanya* (breast milk) & *Arthava* (menstrual blood)
- *Mala - Kapha*
- **Ashraya Ashrayeebhava Sambandha**:

*Rasa Dhatu* and *Kapha* recide in *Ashraya Ashrayeebhava Sambandha* of *Rasadhatu*<sup>8</sup>.

➤ **Rasavridhhi Lakshana** is similar to *Sleshma Vriddhi Lakshana*.<sup>9</sup>

They are as follows,

1. *Agnisadana, Praseka* (Increased salivation)
2. *Aalasya* (Laziness),
3. *Gaurava* (Heaviness),
4. *Shvaitya* (Palloriness),
5. *Shaitya* (Coldness),
6. *Slathangata* (Laxity of organs)
7. *Shvasa* (Dyspnoea)
8. *Kasa* (Cough)
9. *Atinidrata* (Excessive sleep)

➤ **Rasa Dhatu Kshay Lakshanas**<sup>10</sup>

*Rasadhatu* in its decreased state produces

1. *Raukshya* (Dryness),
2. *Shrama* (Tiredness),
3. *Shosha* (Emaciation),
4. *Glaani* (Weakness) and
5. *Trishna* (excessive Thirst)
6. *Shabd Asahishnuta* (irritated to loud sound)

➤ **(Rasavaha Strotodushhi Karana)**<sup>11</sup>

*Rasavaha Srotas* get vitiated due to excessive intake of heavy, cold, excessive unctuous food and over worry.

1. *Ashraddha* (Loss of desire for food, no difficulty in taking food),
2. *Aruchi* (Disapproval of food even after it has been taken in),
3. *Asyavairasya* (Manifestation of abnormal taste in mouth),
4. *Arasajnata* (Absence of perception of food),

➤ **Rasapradoshaja Vikara**.<sup>12</sup>

Disinclination for food, anorexia, dysgeusia, ageusia, nausea, heaviness, drowsiness, fever with malaise, fainting, anaemia, obstruction of channels of circulation, impotency,

asthenia, emaciation, loss of power of digestion and premature appearance of wrinkles and grey hairs.

*Injury to Rasavaha Srotas & its Moolalead to depletion of Rasadhatu which is followed by 1. Shosha (Emaciation),*

2. *Vata Dushti,*

3. *Akroshana* (Loud Grooming),

4. *Vinamana* (Bending),

5. *Moha* (Loss of consciousness),

6. *Bhrama* (Illusion),

7. *Vepana* (Tremors)

8. *Marana* (Death)

*(Rasavahasroto Vriddha Lakshaana)<sup>13</sup>*

For the cure of diseases caused by vitiation of *Rasa*, all types of *Langhana* (reducing therapy) should be advised (*Rasavaha Srotodushti Chikitsa*). Ten types of *Langhana* includes control of thirst, exposure to wind and sun, intake of substance that stimulates digestion, fast and physical exercise.<sup>14</sup>

### **Various aspects of Rasa Dhatu**

#### ***A. Rasadhatu- Ahaararasa***

*Ahara Rasa* when acted by *Rasa Dhatwagni* gets converted into *Rasa Dhatu*.

#### ***B. Parinati Kaala<sup>15</sup>***

Time taken for the formation of *Rasadhatu* from *Ahaararasa* is not fixed and it depends on individual *Agnibala* so it is individualistic. *Rasadhatu* is said to be staying for a period of **3015 Kalaa (5 days)** in each *Dhatu*. Formation of all *Dhatu* takes approximately 1 month (30 days) time i.e. 18090 *Kalaa*. This period also cannot be said as fixed as the formation of *Dhatu* from *Ahaararasa* is a continuous, uninterrupted process like moving wheel and depending on *Agnibala*.

#### ***C. Twak Saara – Rasasaara***

All the skin layers are formed from the *Ashrik (blood)* like layers of scum on boiling milk. As the quality and quantity of blood depends on quality and quantity of *Rasadhatu* it can be inferentially understood that features of *Twak* represents the *Rasa Saarata*. As skin can be a

tool for clinical examination, importance was being given to *Twak* for the assessment of *Rasadhatu* in an individual.

#### ***E. Hridaya- Rasadhatu Sthana***

Even though *Rasadhatu* circulates throughout the body, only *Hridaya* is considered as its *Mool Sthana*.

#### ***F. Dasha Dhamani- Rasavahini Dhamani***

These are the *Moola Sthana* of *Rasavaha Srotas* as per different Acharya. *Dhamani* means the structure which is having pulsation. a. Right Coronary Artery, b. Left Coronary Artery, c. Superior Vena Cava, d. Inferior Vena Cava, e. Pulmonary Trunk, f. Aorta and g. - j. Four Pulmonary Veins can be considered as *Dasha Dhamani*. All the vessels near to heart show pulsation because of transmission of pressure from heart. All these vessels also may be considered as *Rasavahini Dhamani* only because of functional similarity. This difference in the *Moola Sthana* may be because of the individual speciality of the Acharyas (*Charaka- Physiopathological* and *Sushruta- Anatomopathological*).

**Table 1: Panchbhautik Content of Rasa Dhatu<sup>16</sup>**

<i>Panchamahabhuta</i>	Related Panchbhautik Component In The Blood.
<i>Prithvi element</i>	Proteins- Sr. albumin, Globulin, fibrinogen, prothrombin, etc. Nitrogenous- glutamine, creatine, urea, uric acid etc. Sugars- glucose, glycogen etc
<i>Apya element Sneha</i>	- Lipids, phospholipids, cholesterol etc. Body fluid- 60 %, All the Anions and Cations present in the body such as Sodium ion, Chloride ion, Potassium ion, Hydrogen ion etc.
<i>Agneya element Vitamin</i>	- A, D, E, K, C, B-complex, Niacin etc. Enzymes- Amylolytic, Lipolytic, Proteolytic etc Element- Sodium Potassium, Magnesium, Calcium, Iron etc Mineral drugs- Sulphur, Phosphorus All Endocrine secretions

#### CONCLUSION

*Rasadhatu* is the first *Dhatu* among *Saptadhatu*. It is having prime importance as it is the precursor material for all the other *Dhatu* formation. Its *Vridhhi* and *Kshaya* will reflect its



effect on all the *Dhatu*. Its vitiation may show simple to very complicated effects on health. It is the *Dhatu* essential for the new creation (Embryoformation) and also maintenance of life (Recreation), so its understanding and reviewing have its own importance in present era.

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