

**HEART DISEASES: A MANIFESTATION OF RASA DHATU KSHAYA****Dr. Seema Patel\*, Dr. Geetanjali Sasmal\*\*\*, Dr. Vinay Bhardwaj\*\*\*\* and Dr. Ashok Kumar\*\*\*\***\*P.G. Scholar, \*\*\*Reader, \*\*\*\*Lecturer  
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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. Two types of *Rasa-Dhatu* are present in the body, one is *Shhayi Dhatu* and another is *Posaka 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*. By some causative factors of *Sroto-Dusti*, *Sroto Sang* (blocked) occurs which leads to *Rasa Kshaya*. Due to depletion of *Rasa Dhatu* some features like *Hritpida* (Chest pain), *Kamp* (Palpitation), *Sunyata* (Emptiness of heart) *Tamyati* (Tiredness on slight exertion), *Hritdrava* (increase of heart), *Spandan* (Pulsation), *Trisna* (thirst), *Sahate Shabdama* (He does not stand loud sound becomes intolerant) are found. According to modern science atherosclerotic coronary artery is main cause of IHD. Symptoms of *Rasa Dhatu Kshaya* are similar to features of IHD.

**KEYWORDS:** *Dhatu*, *Srotas*, *Vyana Vayu*, IHD.**INTRODUCTION**

There are seven types of *Dhatu*s (tissues) in our body as per *Ayurveda*, which are *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, *Sukra*.<sup>[1]</sup> *Rasa* is the first *Dhatu* amongst these seven *Dhatu*s (tissues) "*Rasa*" literally means one which moves continuously.<sup>[2]</sup> *Rasa Dhatu* is essence of the ingested food<sup>[3]</sup> which continuously circulates in the body and provides nourishment and development of the body. It helps in the overall development of the body. The fluid present in the body is *Rasayukta* and this is the main factor for the development and origin of diseases in the human body.

*Rasa* is the first *Dhatu* (tissue) formed as a result of food digestion by the *Kosthagni* (fire like agency present in the stomach and intestine). Every tissue has its own fire which is called *Dhatwagni*. *Rasa Dhatu* too has its own *Agni* and is called as *Rasagni*. This fire processes the *Ahara Rasa* (*Poshaka Rasa*-nutrient essence) and converts it into: 1) *Sthayee Rasa Dhatu* and 2) *Poshaka Rasa*.<sup>[4]</sup> *Sthayee Rasa Dhatu* goes into the circulation and nourishes the entire body. *Poshaka Rakta Dhatu* (Some part of the *rasa*) moves ahead to form its successor tissue that is *Rakta dhatu*. This part is further processed by *Raktagni*.

According to *Sushruta* the loction or seat of *Rasa Dhatu* is said to be *Hridaya* (heart).<sup>[5]</sup> According to *Charaka* heart with attached ten *dhamanis* (arteries) are *Mula of Rasavaha Srotas*<sup>[6]</sup> (circulatory system). After proper

digestion the *Aahara Rasa* is formed. This *Rasa* being pushed by the *Vyana Vayu* (which is the type of *Vata*) to the *Hridaya* (heart).<sup>[7]</sup> When heart pumps the *Rasa* enters into 24 *dhamanis* (Aorta and its branches) and reaches different parts of body with the help of *Vyana Vayu*. With the help of 10 *dhamanis* travelling in upward direction, the *Rasa Dhatu* travels and nourishes the upper parts of the body. Through the 10 *dhamanis* travelling in downward direction, *Rasa Dhatu* travels and nourishes the lower parts of the body and with the help of 4 lateral (sidewards) *dhamanis*, the *Rasa Dhatu* nourishes the lateral parts or sides of the body.<sup>[8]</sup>

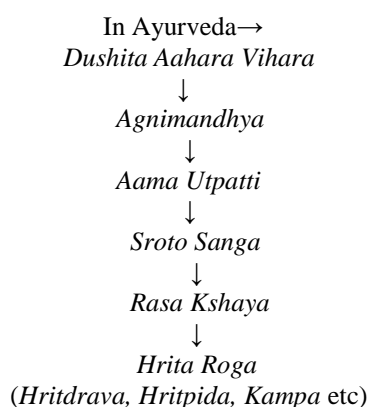
*Rasa* moves in the entire body i.e. organs, *Doshas*, *Dhatu*s, *Malas* and viscera. It has properties such as *Saumya* (cold properties and actions) or *Drava* two, unctuousness, enliven (sustaining life), nourishing, supporting etc. *Rasa dhatu* does *Tarpana*, *Vardhan*, *Dharan*, *Yapana*, *Snehana*,<sup>[9]</sup> and *Preenana* (gratification) and *Raktapusti* (nourishment of *Rakta Dhatu*) functions.<sup>[10]</sup>

According to WHO Ischemic heart disease (IHD) is the myocardial impairment due to imbalance between coronary artery blood flow and myocardial requirements. The most common cause of IHD is atherosclerotic coronary artery disease (CAD).<sup>[11]</sup> Myocardial ischemia occurs as a result of imbalance between O<sub>2</sub> supply and its demand, myocardial oxygen demand is reduced in conditions like –

- Coronary artery disease due to atherosclerotic lesion obstructing the vessels.
- Spasm of coronary arteries.
- Coronary artery embolism.
- Paroxysmal supra ventricular tachycardia.
- Severe anaemia and carbon monoxide poisoning.
- Thyroid disorders.
- Aortic stenosis.
- Hyper trophic cardio myopathy.<sup>[12]</sup>

#### Symptoms of *Rasa Kshaya*<sup>[13,14,15]</sup>

- *Tamyati* - Tiredness on slight exertion
- *Sahate – shabdama na-* He does not stand loud sound becomes intolerant
- *Hritpida* – Pain
- *Kampa* – Throbbing
- *Trisna* – Thirst
- *Hritdrava* – Increase of heart rate
- *Spandan* – Pulsation (throbbing)



#### Lakshan of *Srota Dusti*<sup>[18]</sup>

- 1) *Atipravritti* (Enhanced flow)
- 2) *Sang* (obstruction in channels)
- 3) *Siragranthi* (formation of nodule)
- 4) *Vimarga gaman* (flow contents in wrong direction)

*Srota dusti* is the key factor for occurrence of any disease. *Srota sang* is involved in IHD.

#### DISCUSSION

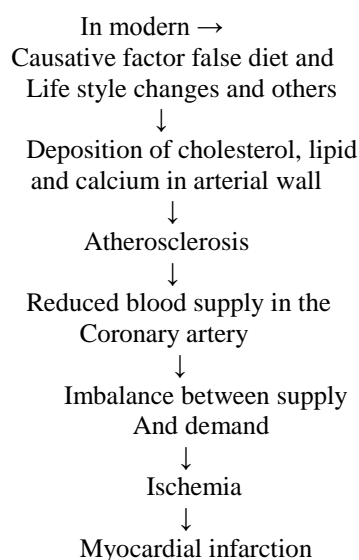
*Rasa* is the *Aadya Dhatu* in seven types of *Dhatu* which are produced directly from *Annarasa* and it continuously circulates in the body and provides nourishment and development of the body. This *Rasa* being pushed by *Vyana Vayu*. The help of *Vyana Vayu* *Rasa* reaches the different parts of the body from heart. *Rasa Dhatu* has *Saumya* or *Drava* properties. It's main function is *Preenam*. *Rasa* goes all parts of the body through *Srotas*. When this *Srotas* is blocked or *Sroto-Sanga* by causing factor of *Srota Dusti*. Then *Rasa Kshaya* occurs. According to *Sushruta* by depletion of *Rasa Dhatu* *Vata*

#### Myocardial Infarction

Immediately after a acute coronary occlusion, Blood flow ceases in the coronary vessels beyond the occlusion. The area of muscle that has either zero flow or so little flow that it cannot sustain cardiac muscle function is said to be infarcted. This process is called myocardial infarction. When the area of ischemia is large, some muscle fibers die rapidly where there is total cessation of coronary blood supply.<sup>[16]</sup>

#### Angina Pectoris (Cardiac Pain)

In most people who sustain progressive constriction of their coronary arteries, cardiac pain called angina pectoris. It felt in pectoral regions of the upper chest and radiates into the left neck area and down the left arm. This pain is typically caused by moderate ischemia of the heart.<sup>[17]</sup>



will be increased<sup>[19]</sup>, which increases the contraction of heart. Due to *Rasa Kshaya* and increased *Vata*, functions of *Rasa Dhatu* get reduced then *Sula (Hritapida)*, *Kampa* (throbbing), *Hritdrava* (palpitation), *Trisna* (thirst), *Sunyata* (emptiness of the heart), *Spandan* (pulsation) *Tamyati* (tiredness on slight exertion) like symptoms occurs.

According to modern science- Abnormal thickening of the walls of the arteries due to fatty deposits (atheroma) of cholesterol on the arterial inner walls. These thicken forming plaques that narrow the vessel channel (lumen) and impede blood flow. Scarring and calcification make the walls less elastic raising blood pressure. Eventually plaques may completely block a lumen or a blood clot (thrombus) may obstruct a narrowed channel. Atherosclerosis of one or more coronary arteries (also called CHD) can decrease the heart muscle's blood supply. When O<sub>2</sub> demand of cardiac muscles increased then heart rate, contractility and cardiac wall tension will increased. When blood supply decreased coronary blood

flow and O<sub>2</sub> availability of cardiac muscles decreased. Decreased blood supply to heart muscles leads to angina pectoris. Which is the main symptoms of IHD and complete blockage (ceases) in the coronary, leads to myocardial infarction.

### CONCLUSION

From literary and observation study. It can be concluded that, In IHD patients, vitiation of *Rasa Dhatu* and *Rasa Vaha Srotas* (blood, heart, blood vessels) occurs. *Sanga Dusti* in *Rasa Vaha Srotas*, leads to *Rasa Kshaya* (impaired Flow of rasa). In depletion of *Rasa Kshaya Preenam karma* (providing nourishment) of *Rasa Dhatu* gets reduced. Then *Rasa Kshaya Lakshan* appears which is similar with symptoms of IHD.

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