

“Understanding *Hridaya Roga* (Heart Diseases) through the lens of *Rasa Pradoshaja Vikara*: An Ayurvedic Insight”

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ABSTRACT:

The *Dhatu*s, provide structure, nourishment, and support to the body. The health of an individual depends upon the *dhatu* and any variation in them leads to disease (*Vikara*). An imbalance in the *Doshas* can impact the development, functionality, and quality of the *Dhatu*s during the pathogenesis of disease. Taking inappropriate or unhealthy food, lifestyle irregularities, environmental influences, emotional stress etc can cause the improper formation of first formed *dhatu*, *Ras Dhatu*. Prolonged exposure to the causative factors leads to pathological changes in *Rasavaha Srotas* and severe vitiation of *Ras Dhatu*, which in turn causes *Ras Pradoshaja Vikara* at various regions of the body. The Mula (root) of *Rasavaha Srotas* is the *Hridaya* (heart) and the *Dasha Dhamani*. For the distribution of *Rasa Dhatu*, these structures play a crucial role in maintaining the healthy circulation and nourishment of tissues. Disruptions or blockages in these channels can lead to a disorder known as *Hridroga* (heart diseases). Therefore, a holistic approach to maintaining the balance of *Ras Dhatu* is essential for preventing disease and promoting overall health.

KEYWORDS – *Rasa Dhatu*, *Rasavaha Srotas*, *Hridroga*, *Rasa pradoshaja vikara*

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INTRODUCTION

In Ayurveda, the concept of *Dhatu*s (bodily tissues) is fundamental to understanding because the health of an individual depends upon the *Dhatu* and any variation in them leads to disease¹. Among the seven *dhatu*s, *Ras Dhatu* is the first and is considered crucial for the nourishment of the entire body and other *Dhatu*s.² Imbalances or dysfunctions in *Ras Dhatu* can lead to various health issues, including heart diseases (*Hridaya Roga*).

AIM : The aim is to provide insight into the fundamental ideas and mechanisms of *Hridaya Roga* (heart disorders) from an Ayurvedic perspective, specifically via the understanding of *Rasa Pradoshaja Vikara* (disorders resulting from the vitiation of *Rasa Dhatu*).

CONCEPTUAL STUDY :

***Ras Dhatu*: The Essence of Nourishment**

The word *rasa* comes from the root *gatau*³, which signifies movement. *Rasa* is the name given to the nutrient fluid that is constantly circulating throughout our bodies, providing nourishment to all other tissues. The extract or essence of the food, which is in ultra fine or minute form is called *Rasa*⁴. *Ras* is the first *dhatu* in our body, so we refer to it as an *Adyadhatu*. It is formed from the digested food influenced by

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jatharagni (digestive fire) and is responsible for the initial stage of tissue nutrition and hydration. *Rasa* resides in heart⁴. The quality of *Ras Dhatu* directly influences the health of other *dhatu*s and overall vitality. *Ras Dhatu* plays several key roles:

Nourishment⁵ (*Prithvi Mahabhuta*): It provides essential nutrients to the entire body.

Protein Serum⁶ albumin, Globulin, fibrinogen, etc.

Glucose, glycogen, Nitrogenous, creatine, urea, uric acid etc.

Hydration (*Jala Mahabhuta*): It maintains fluid balance and hydrates tissues.

Body fluid 60% contain Na⁺, Cl⁻, K⁺, H⁺ ion

Sneha – Liquids, Phospholipids Cholesterol etc

Circulation (*Vayavya Mahabhuta*): It supports the transportation of nutrients and waste product
Gases, oxygen, carbon dioxide etc.

(*Agneya Mahabhuta*) : Vitamin A, D, E, K, B
Complex Niacin

Enzyme- Amylolytic, Lipolytic, Proteolytic, endocrine secretions

Elements- Sodium, Potassium, Magnesium, Calcium, Iron etc.

***Rasvaha Srotodushiti*: Blockages in Nutrient Channels**

According to Ayurveda, *Srotas* are passageways or channels that allow different substances, such as

dhatu, to flow. The channels that are specifically in responsible for transporting *Ras Dhatu* are called *Rasvaha Srotas*⁷. When the body's *doshas* become unbalanced and circulate, they often accumulate in specific locations where the body's channels (*srotas*) are weak or defective. Diseases arise as a result of the accumulation of aggravated *doshas* in these susceptible areas. *Rasvaha srotodushti* describes the obstruction or malfunction of these channels, which can be brought on by several factors:

- **Impaired Digestion (*Agni Dushti*):** Impaired *Agni*⁸, the digestive fire, can cause *Rasa Dhatu* to form improperly.
- **Accumulation of *Ama*:** From unprocessed food⁹, excessive or heavy foods or *Ama*, it can obstruct *Rasvaha Srotas*.
- **Lifestyle Factors:** Stress, a poor diet, and a sedentary lifestyle can all lead to *Srotodushti*.
- **Emotional Imbalance:** Stress and anxiety are examples of negative emotions that can interfere with *Ras Dhatu's* flow.

When *Rasvaha Srotas* are blocked, tissues receive insufficient nutrition and hydration, which can lead to a variety of disorders known as *Ras Pradoshaja Vikara*.

***Ras Pradoshaja*¹⁰ *Vikara*: Disorders from *Ras Dhatu* Imbalance**

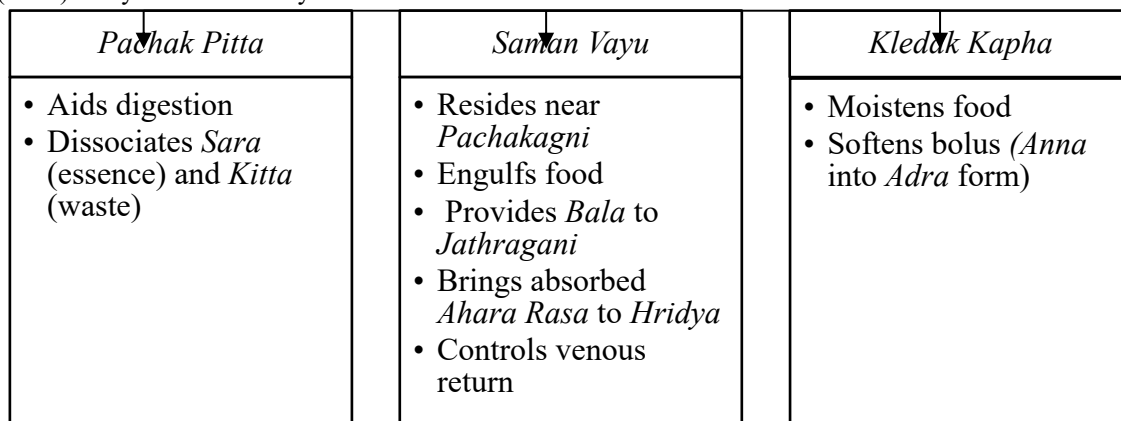
The disorders that result from imbalances or dysfunctions in *Ras Dhatu* by *Doshas* are referred to as *Ras Pradoshaja Vikara*. When the body's *dhatu*s (such as *Rasa*, *Rakta*, etc.) are contaminated by the *doshas* (*Vata*, *Pitta*, and *Kapha*), diseases arise and are named after the affected *Dhatu*s. This naming is analogous to how burns are named based on the substance causing the burn, like '*Ghritadagdha*' for ghee burns, '*Tailadagdha*' for oil burns, and so on but it is really scalded by heat through these various medias. Similarly, diseases named after specific *dhatu*s indicate that the *doshas* in those *dhatu*s are the underlying cause¹¹. These disorders can manifest in several ways as mentioned in *Charaka samhita*¹² and *Sushrut samhita*¹³:

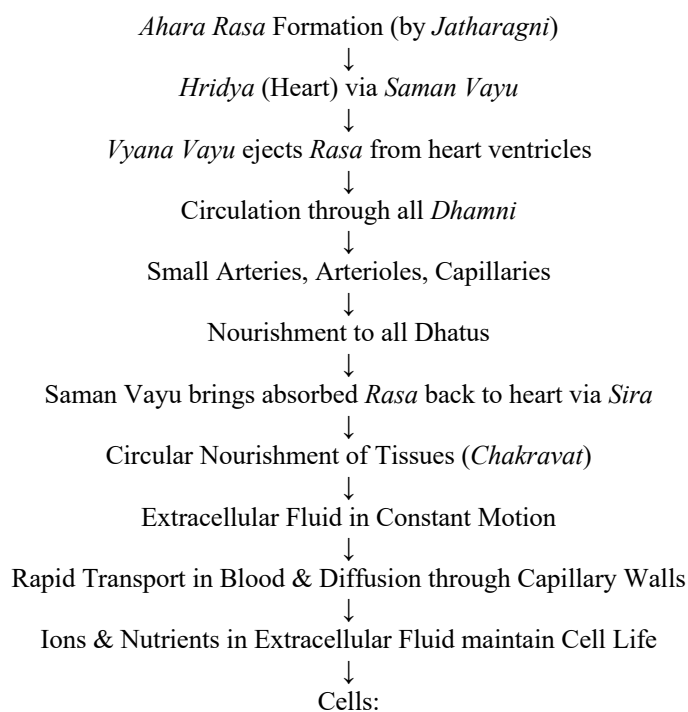
- **Nutritional Deficiencies:** Weakness, exhaustion, and general debility can result from inadequate nutrients getting to the tissues.
- **Fluid Imbalances:** It can lead to problems like edema or dehydration.
- **Digestive Issues:** Impaired *Ras Dhatu* formation can lead to bloating, indigestion, and loss of appetite.
- **Emotional and Mental Distress:** Poor mental and physical nourishment frequently results in anxiety, stress, restlessness, and irritability. One of the most serious consequences of *Ras Pradoshaja Vikara* is the development of heart diseases, collectively referred to as *Hridaya Roga*.

Concept of *Hridaya* and *Rasa Dhatu* : A Symbiotic Relationship

Hri: Derived from *Harati* - "to receive" **Da:** Short for *Dadati* - "to give" **Ya:** Represents *Yapayati* - "to go", "to move", "to circulate". The heart is a crucial organ as it maintains the circulation by appropriate flow of vital fluids and energies. *Hridaya* is situated in the thoracic cavity, covered by the ribs and slightly to left. The heart facilitates the nourishment and proper function of *Rasa Dhatu* and ultimately linked to all the *dhatu*s. *Rasa Dhatu* flows out from the heart through blood vessels, which starts at the heart and are carried throughout the body by *Vyana Vata*¹⁴ (*Vyana Vata* is called *Mahajava* by *Astanga Hridaya* because of its extraordinary speed and capacity to perform all bodily functions). Thus, one function of *Vyana vata* is *Rasa-Rakta Paribhraman*. (movement of nutrients). Through heart *Ahara-Rasa*, *Rasa*, and *Rakta Dhatu* reached to every organ. *Hridaya* is termed as *mula sthana* of *Hridaya*. This states that the production, upkeep, and distribution of plasma throughout the body are primarily the function of the heart. *Rasa* travels throughout the body with the help of all *Dhamnis* i.e., 24 *Dhamnis* which comes out from heart¹⁵. When the *Rasa* is depleted, the symptoms are pain in the heart, trembling of the whole body or hands and feet, sense of emptiness of limbs and thirst¹⁶. Due to excessive increase in *Rasa Dhatu* the symptoms are oppression in the heart, nausea and dripping of saliva from the mouth.¹⁷

Ahara (Food) Entry into Alimentary Tract





- Living (*Yapyati*)
- Growing (*Vardhyati*)
- Performing Functions (*Tarpyati*)
- Maintained by proper concentrations of oxygen, glucose, ions, and other constituents.

***Hridaya Roga*: Heart Diseases from *Ras Dhatu* Imbalance**

Heart disease, known as *Hridaya Roga*¹⁸ in Ayurveda, is a significant health concern worldwide.

1. Nidana (Causing Elements)

- *Ahara* (Dietary factors): Overconsumption of heavy(guru), greasy(atisnigdha), and fatty Foods, incompatible foods that are difficult to digest.
- *Vihara* (Lifestyle Factors): a sedentary lifestyle, irregular daily routines, excessive exercise.control natural urges of the body.
- *Manasika* (Mental Factors): Prolonged anxiety, restlessness, and emotional strain.

2. Inequality of *Dosha*¹⁹

• **Main Involvement of *Pitta* and *Kapha* *Doshas*:** *Pitta* gives rise to heat and inflammation, while *Kapha*, because of its heavy and unctuous nature, creates blockages.

• ***Vata* *Dosha* Disturbance:** a secondary involvement that impairs the body's ability to move nutrients and energy.

3. *Agni Dushti* (Digestive Fire Impairment): Toxins called *Ama* are created when digestion is compromised, and these toxins then spread along with *Ras Dhatu*.

4. *Srotodushti* (Channel Blockage)

• ***Rasavaha Srotodushti*:** Blockage and dysfunction of the channels responsible for the

transportation of *Ras Dhatu*, leading to improper nourishment and circulation.²⁰

○ ***Sanga* (Obstruction):** Accumulation of *Ama* and imbalanced *Kapha* obstructs the channels.

○ ***Granthi* (Nodules):** Formation of nodules or plaques within the vessels.

○ ***Vimarga Gamana* (Abnormal Flow):** Erratic flow of *Ras Dhatu* due to *Vata* disturbance.

5. *Vyadhi Utpatti* (Disease Manifestation)

• **Symptoms**²¹: Palpitations, fatigue, nausea,vomiting edema, thirst, fever. Discoloration such as pallor, cyanosis, and malar flush are indicative of different heart conditions. Fainting a particular symptom of cardiac asthma,which is brought on by decreased blood supply to the brain. Fever is characterised by infection or inflammation of the heart lining causes rheumatic or septic endocarditis.

Complications: If untreated, can lead to severe conditions like angina, myocardial infarction, or heart failure.

According to Ayurveda, heart conditions are categorized as *Hridaya Roga* depending on predominance of the three *doshas*—*Vata*, *Pitta*, *Kapha*. Heart diseases are categorized in modern medicine according to their pathology and clinical manifestation. The five types²² of *Hridaya Roga* found in Ayurveda are contrasted here with their contemporary analogues in cardiology.

HRIDAYA ROGA	HEART DISEASES ^{23,24}
<i>Vataja Hridaya Roga</i>	Arrhythmias, Angina, Stress-Induced

	Cardiomyopathy.
Causes- Excessive fasting and exercise, grief,dry and scanty food.	Causes- Coronary artery disease, cardiac electrical irregularities, high level stress.
Symptoms-Trembling,Constriction or twisting pain,Stiffness, Delirium,Confusion.Numbness	Symptoms- Palpitations, anxiety, fatigue, and chest pain.
<i>Pittaja Hridaya Roga</i>	Ischemic heart disease, Pericarditis, Myocarditis
Causes- Alkaline, pungent, or bitter and indigestible foods, anger, heat or sun exposure.	Causes- Inflammation of the coronary arteries, autoimmune diseases, and viral infections.
Symptoms- Intense burning sensation, Fatigue,Thirst,Bitterness in the mouth, Fainting,Sweating.	Symptoms- elevated heart rate, fever, chest pain, and blood markers for inflammation.
<i>Kaphaja Hridaya Roga</i>	Hyperlipidemia (high cholesterol), Cardiomyopathy and Congestive heart failure.
Causes- Heavy and oily foods, lack of mental activity, lack of physical activity, excessive sleep.	Causes- High cholesterol, fluid overload, and weakening of the heart muscle.
Symptoms- Heaviness or numbness in the heart Feeling of dullness or sluggishness,Sensation of heaviness,Edema, Drowsiness, Lack of appetite The heart feels obstructed, as if covered.	Symptoms- Fatigue, Shortness of breath, Edema, and Fluid retention.
<i>Tridoshaja Hridaya Roga</i>	Mixed Cardiomyopathies, Advanced Heart Failure
Causes- the causes are the combination of different etiological factors of vata,pitta,kapha.	Causes- comorbid conditions, lifestyle , and genetic predisposition.
Symptoms-	Symptoms- Combined symptoms involving arrhythmias, inflammation, fluid overload.
<i>Krimija Hridaya Roga</i>	Parasitic Infection of Heart
Causes-Excessive use of sesame,jiggery,sweets the granthi is formed at a specific location and generates a kind of blockage and accumulation of fluid (known as Sankleda). From this blockage, worms are born, afflicting the affected area,they move around and eat up thr tissues.	Causes- Parasitic infections such as heart-affecting filariasis, echinococcosis, and Chagas disease.
Symptoms- Severe pain,Intense itching,Pricking and Cutting sorts of pain.	Symptoms- Cardiomegaly, Heart failure symptoms, arrhythmias, Systemic infection signs.

Hridaya Roga encompasses various heart-related conditions that can arise from prolonged imbalance in *Ras Dhatu* and *Rasvaha Srotodushti*:

- **Coronary Artery Disease:** Blockages in the heart's blood vessels due to accumulated *Ama* and poor-quality *Ras Dhatu*.
- **Hypertension:** Increased blood pressure resulting from impaired fluid balance and vessel elasticity.
- **Congestive Heart Failure:** Inadequate nourishment and hydration leading to weakened heart muscles and poor cardiac output.
- **Arrhythmias:** Irregular heartbeats caused by the erratic flow of nutrients and improper nourishment of heart tissues.

The heart, or *Hridaya*, is considered the seat of *Ras Dhatu*. Therefore, any dysfunction in *Ras Dhatu* significantly impacts cardiac health.

In Ayurveda, *Hridaya* (the heart) is a critical organ, both structurally and functionally. It is considered the

seat of life, emotions, and consciousness. The concept of *Hridaya* in Ayurveda goes beyond the physical heart, encompassing a holistic understanding that includes its connection to *Ras Dhatu* (plasma) and its role as the *mula sthana* (primary site) of *Rasavaha Srotas* (channels carrying *Ras Dhatu*).

DISCUSSION

This article covers an extensive study of various Ayurvedic references on *Ras Dhatu*, *Rasvaha Srotodushti*, and its consequences as well as the acquiring *Vikara* in context with *Hridaya Roga*.

Understanding *Ras Dhatu*

The concept of *Ras Dhatu*, compared to plasma or chyle is the basic and fundamental structure in Ayurvedic physiology. Its importance is further highlighted by its role in nourishment, hydration and circulation. Here the analogy of *Ras Dhatu*, with

plasma helps us understand how traditional Ayurvedic concepts compare with modern physiology. On the whole, causative factor such as improper digestion, *ama sanchaya* and poor metabolism with inappropriate lifestyle or psychological factors can be broadly attributed in pathogenesis of *Rasvaha Srotodushti*. And in general, it resonates with the holistic health models of contemporary medicine in association between lifestyle as well as nutrition with mental health.

Hridaya Roga: Linking Theory to Practice

There is a logical progression from *Ras Dhatu* imbalances to *Hridaya Roga*. Congestive heart failure, arrhythmias, hypertension, coronary artery disease, and other specific heart conditions are well-known cardiovascular diseases. *Hridaya* is the root (*mula sthana*) of *Ras Dhatu*, which highlights the importance of a healthy diet and fluid balance for cardiac health. This Ayurvedic viewpoint offers a comprehensive alternative to the biomedical strategy, which frequently places more emphasis on treating symptoms than underlying causes.

The symptoms mentioned in the general symptoms of *Hridaya Roga* like Pallor, sign of Anemia is the result of heart valve dysfunction. Cyanosis, which appears in the lips, nose, and nails, is the consequence of venous stasis results by a deficiency of hemoglobin. Redness on the cheeks, or malar flush, is a sign of mitral stenosis brought on by elevated blood vessel pressure in the face.

In Coronary Artery Disease high-fat diet, lack of exercise, sedentary lifestyle and stress increased *Kapha* and *Pitta*, leading to accumulation in the *Rasvaha Srotas*. *Agni Dushti* (Digestive Fire Impairment) takes place due to poor diet & weakened *Agni*, leading to *Ama* production. *Srotodushti* (Channel Blockage) *Rasvaha Srotas* gets blocked by *Ama* and increased *Kapha dosha*, causing poor circulation and nourishment. *Rasa Dhatu Kshaya* (Depletion of *Ras Dhatu*) hence nutritional Deficiencies occurs and poor-quality *Ras Dhatu* alongwith *Ama* led to blockages and impaired heart function. In Arrhythmia due to irregular eating habits, excessive stimulants like caffeine, high stress and sedentary lifestyle *Ras Dhatu Dushti* and *Vata* aggravation occurs in *Rasvaha Srotas*. Irregular lifestyle and stress increased *Vata dosha*, particularly affecting the heart. Irregular diet led to weak *Agni* and production of *Ama*. *Rasvaha Srotas* gets disrupted by *Vata*, leading to irregular heart function. *Rasa Dhatu Kshaya* (Depletion of *Ras Dhatu* or inadequate Nourishment) or poor-quality *Ras Dhatu* led to irregularities in heart rhythm.

In Congestive Heart Failure (*Hridroga*) due to high salt and fats (*Ahara*), sedentary lifestyle (*Vihara*), long-term stress (*Mansika*), *Ras Dhatu Dushti* and *Kapha* accumulates in *Rasvaha Srotas*. Stress aggravated *Vata*, while a poor diet and sedentary lifestyle increased *Kapha* and caused congestion. A poor diet caused *Ama* to build up and *Agni* to become weak. *Ama*

and *Kapha doshas* block *Rasvaha Srotas*, which results in poor heart function and fluid retention. Depletion of *Ras Dhatu*, also known as Inadequate Nourishment and Hydration, or *Ras Dhatu Kshaya*, can result in weakening heart muscles and fluid imbalances.

CONCLUSION

Hridaya is the *mula sthana* of *Ras Dhatu*. Therefore, any disruption in *Ras Dhatu* has a major effect on heart health. The heart, or *hridaya*, is a vital organ in Ayurveda, both anatomically and functionally. It is regarded as the source of consciousness, feelings, and life. Beyond the physical heart, the Ayurvedic concept of *Hridaya* encompasses a holistic understanding that includes its relationship to *Ras Dhatu* (plasma) and its function as the primary site (*mula sthana*) of *Rasvaha Srotas* (channels carrying *Ras Dhatu*).

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