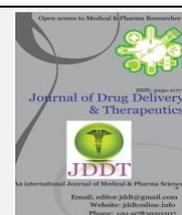


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Review Article

Review of *Hridroga* W.S.R. to the Ischemic Heart Disease

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ABSTRACT

Hridroga (Heart disease) is very common in present scenario due to the sedentary life style and increase psychosocial stress. The major causative factors for heart problems are cigarette smoking, tobacco chewing, alcohol consumption, junk foods and obesity. According to WHO Ischemic heart disease or Coronary artery disease is the major causes of mortality. Therefore, it is needed to explore knowledge on heart disease time to time. The main purpose of this article is to promote the awareness about the heart disease, so prevalence of such problem can be reduced by avoiding risk factors.

Keywords: *Hridroga*, *Hritshool*, Heart disease, Ayurveda, IHD (Ischemic Heart Diseases).

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Introduction:

The ancient texts of Ayurveda described *Hridroga* in the form of *Vatik*, *Paittik*, *Kaphaj* and *Sannipataj Hridroga*. *Acharaya Charak* has also described one another type of *Hridroga*; i.e. *Krimij Hridroga*.^[1] Similarly *Acharaya Sushruta* has described another specific *Hridroga* named as *Hritshool* which can be correlates with Ischemic Heart Diseases (IHD) or Coronary Artery Diseases (CAD) as per modern science.^[2]

Acharya Sushruta has given explanation about anatomy of *Hridya* like as "*Pundriken Sadrushyam Hridayam Syaaddhomukham | Jagrtastad Suviksati Swapatashch Nimilati*|" it means heart is situated in oblique downward like the lotus, their activity is increased in awaken state and activity decrease in sleeping condition.^[3] The Autonomic nervous system is responsible for many physiological functions including the force of contraction of the heart, peripheral resistance of blood vessels and the conduction of heart rate.

Acharaya sushruta has described the physiology of heart as "*Arharhar Gachchhriti Rasastsya cha Sthanam Hridam* |" it means after the digestion of the food; it gets absorbed by the blood circulation and circulated in the whole body for the nutritional requirement through the Heart.^[4] Heart also promotes excretion of waste products from the tissue metabolism *via* blood, urine, respiration and sweat, etc.

Causes of *Hridroga*:

According to *Acharaya Charak* ^[1] there are following factors that can leads *Hridroga*:

1. *Ativyayaam* (Excessive exercise or not exercising)
2. *Ushna Ahar Sevan* (Consuming excessive spicy food)
3. Improper use of *Panchkarma*
4. *Chinta* and *Bhaya* (Excessive Stress and worrying)
5. Pre-existing diseases is not treated properly
6. *Ama Dosh*
7. *Veg Dharan* (Suppression of desire or impulse)
8. Unhealthy diet and polluted environment
9. *Abhighata* (Trauma), etc.

Besides these causes, *Acharaya Madhav* also has described the causes of *Hridroga* i.e.; consumption of hot and heavy food, use of astringents and bitter substance, excessive physical work, habitually taking food before the previous one has been digested and anxiety may precipitate pathogenesis of *Hridroga* ^[1].

According to modern medicine there are many etiological factors described regarding to the heart diseases or Ischemic

Heart Diseases (IHD) or Coronary Artery Diseases such as; old age, endomorphic body structure, derangements of lipids, cigarette smoking, tobacco chewing, obesity, less physical activity, diabetes mellitus, family history, psychosocial factors, stress and syndrome.^[5]

Samprapti (Pathogenesis) of Hridroga:

The etiological factors vitiates *Doshas* that further affects *Rasa Dhatu*, localise themselves in the heart and create obstruction resulting the impairment in the functions of heart and produces pain, this condition is known as *Hridroga*.^[1]

According to *Acharya Sushruta* the *Samprapti* of *Hridroga* is: “*Kapha-Pittastu Avroodhstu Maruto Rasmoorchhitaha | Hridsthaha Krute Shoolam Uchhwast Shwas Awrodhakam Param || Sa Hritshoolam Eti khyato Rasmaruta Sambhavaha ||* which means aggravated *Vayu* mixed with *Rasa* and obstructed by *Kapha* and *Pitta* gets located in heart and cause pain creating, severe difficulty in breathing, this is known as “*Hritshool*” caused by *Rasa* and *Vayu*.

Modern Aspects

Atherosclerosis is responsible for ischemic heart disease in 90% case as per modern science, while other causes are vasospasm, embolism, thrombotic disease, trauma, aneurysm and compression etc.^[6] IHD is a condition which results from reduced blood supply to the heart muscle. This usually involves impairment of blood flow through the

coronary arteries, most commonly caused by atherosclerotic narrowing, but occasionally arterial spasm, embolism and thrombotic disease etc., these all conditions may causes following consequences:

- A. Asymptomatic state
- B. Angina pectoris
- C. Acute myocardial infarction (MI)
- D. Chronic ischaemic heart disease (CIHD)/ Ischaemiccardiomyopathy/ Myocardial fibrosis
- E. Sudden cardiac death ^[6]

All are the ischemic and emergency conditions except asymptomatic state, but, in these conditions Angina pectoris is the common and first symptomatic discomfort resulting from acute myocardial ischemia. It is characterised by paroxysmal pain in the substernal or precordial region of the chest which is aggravated by an increase in the demand of the heart and relieved by a decrease in the work of the heart. The pain radiates to the left arm, neck, jaw or right arm. There are three overlapping clinical patterns of angina pectoris with some differences in their pathogenesis; Stable or typical angina, Prinzmetal’s variant angina and Unstable or crescendo angina ^[6]. **Figure 1** depicted common pathological sequences of heart diseases.

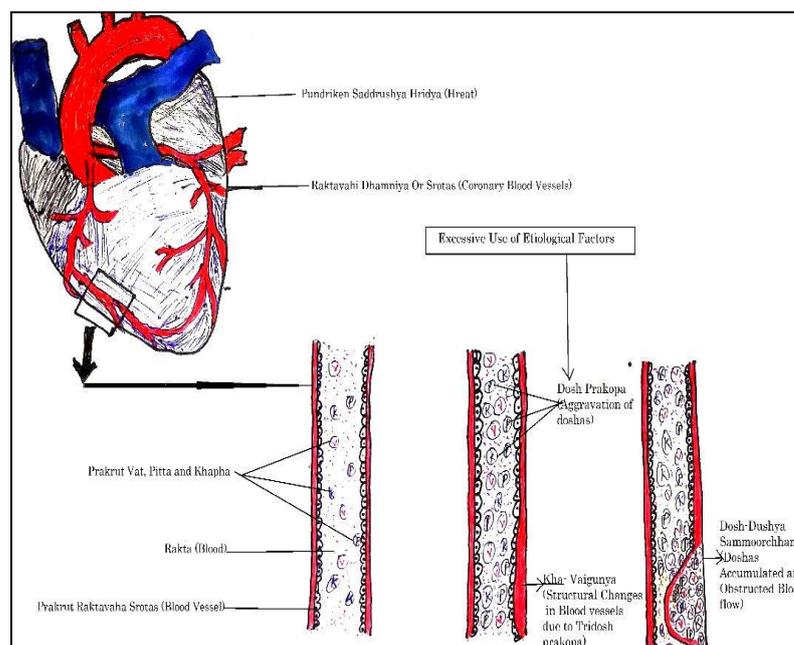


Figure 1: Pathological events related to the heart diseases

Common Clinical Features of Hridroga:

The Clinical features of *Hridroga* described by the *Acharya Charak* as following: ^[1]

- *Vaivarnaya* (discolouration; e.g. pallor, cyanosis and flushing)
- *Moorchha* (syncope)
- *Jwara* (increase body temperature)
- *Kasa* (cough), *Shwas* (difficulty in breathing) and *Hikka* (hiccough)

- *Vairasya* (distaste), *Trushna* (thirst) and *Pramoha* (drowsiness)
- *Vaman* (vomiting), *Utklesh* (nausea) and *Aroochi* (loss of Appetite)

Symptoms of Hridroga according to predominance of Doshas: ^[2]

1. *Vataj Hridroga:*

A stretching sensation is felt all over the heart in the *Vatik Hridroga* and is accompanied with *Tudhate* (pricking),

Nirmathyte (churning), *Diryate* (tearing), *Sphotyate* (bursting) and *Patyate* (splitting) type of pain.

2. *Pattik Hridroga*:

The *Hridroga* of *Pitta* origin present with thirst, warmth, burning and sticking sensations a feeling of fatigue in the heart, smoky eructation, fainting, perspiration and dryness of the mouth.

3. *Kaphaj Hridroga*:

When the *Hridya* is affected by the *Kapha dosha* patient feel heaviness, secretion of saliva, anorexia, a sense of contraction, lassitude, impaired digestive power and a sweetish taste in the mouth.

4. *Krimij Hridroga*:

When the person affected by the *Tridoshaj Hridroga* and he again consume sesame, milk and *Guda* (Jiggery) etc., then a node formed in the *Hridyapradesh* (pericardial region), which affected by the circulating vitiated *Rasdhatu* and produce *Krimi* in this nodular space. These *Krimi* infected the heart and finally produces clinical manifestations. In the *Krimij Hridroga*, there is severe distress and pricking type of pain in pericardial region, itching sensation, anorexia and oedema.

Investigations for Diagnosis of Hridroga or Ischemic Heart Diseases:

➤ *Trividh Pariksha*

Darshana, Sparshana and *Prashan*.

➤ *Panchvidh Pariksha*

Nidan (examination of etiological factors), *Poorvaroop* (symptoms of disease), *Roopa* (clinical features of diseases), *Upshaya* (empirical therapy for differential diagnosis of diseases) and *Samprapti* (pathogenesis)

➤ *Aststhan Pariksha*

Nadi Pariksha, Mala Pariksha, Mootra Pariksha, Jivha Pariksha, Shabd (speech examination), *Sparsh Pariksha, Drik Pariksha* and *Akruti Pariksha*.

➤ *Dashvidh Pariksha*

Prakrit Pariksha, Vikriti Pariksha, Saara Pariksha, Satmya Pariksha, Satva Pariksha, Samhanan Pariksha, Desh Pariksha, Ahar Shakti, Vyaym Shakti and *Vya Pariksha*.

Modern aspect on diagnosis of heart diseases

ECG, TMT, Holter Monitoring, CT Angiography and Angiography, etc.

Discussion:

Ischemic heart disease is similar to the *Vatika Hridroga* and *Hritshool*, *Hridrogas* are mainly occurs due to use of

Ativyayaam, Ushna Ahar Sevan, improper use of *Panchkarma, Chinta, Bhaya, Ama Dosha, Veg Dharan* and *Abhighata*. These causative factors aggravate the *Tridoshas* (*Vat, Pitta* and *Kapha*) leading to the formation of *Ama* that is too heavy and sticky in nature which further obstructs *Srotas* with *Rasadhatu* and in this way pathogenesis of heart diseases initiated. *Hridroga* is accompanied with *Tudhate* (pricking), *Nirmathyte* (churning), *Diryate* (tearing), *Sphotyate* (bursting) and *Patyate* (splitting) type of pain.

As per modern science in ischemic heart disease pain typically feels like as pressure, squeezing, burning or tightness during physical activity. The pain and discomfort usually start from substernal region, but it can radiate to the left arm inner surface, shoulder, neck, jaw and back. Associated symptoms are coughing, palpitation, breathlessness and weakness. Ischemic heart disease can be diagnosed on the basis of clinical examination, ECG, TMT, echo and biomarkers etc.

Conclusion:

Heart disease is leading cause of death in both men and women and coronary artery disease is the common most heart disease especially in old age. The prevalence of such diseases can be avoided by taking consideration of causative factors. In Ayurveda there are many procedures, therapies and examination methods have been described for the management of various heart diseases. The basic principles and concepts of Ayurveda provides a way to restore normal physiological functioning of heart, Ayurveda suggest that taking consideration of causative factors help to prevent pathological initiation of heart diseases therefore awareness about etiological factors of heart disease is prerequisite.

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