



UNDERSTANDING THE SAMPRAPTI OF HRITSHOOLA AND ITS CORRELATION WITH ISCHEMIC HEART DISEASE.

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ABSTRACT

Introduction- Ayurveda is an ancient holistic science that emphasizes both prevention and management of diseases. Cardiovascular diseases are the leading cause of mortality worldwide. Conditions such as Coronary Artery Disease (CAD), Myocardial Infarction, Sudden Cardiac Death, thromboembolism, and atherosclerosis significantly contribute to global health burden. In Ayurveda, Hritshoola (cardiac pain) is described as an important clinical manifestation associated with cardiac disorders. Understanding the Samprapti (pathogenesis) of Hritshoola may help in early identification and prevention of severe cardiac conditions. **Methods-** A conceptual and comparative literary review was conducted. Classical Ayurvedic texts were analyzed to understand the Nidana (causative factors), Dosha involvement, Dushya, Strotas, and Samprapti of Hritshoola. Contemporary medical literature related to atherosclerotic heart disease and coronary artery pathology was reviewed. A comparative analysis was performed to correlate Ayurvedic pathophysiological concepts with modern cardiovascular mechanisms. **Results-** Hritshoola is primarily associated with vitiation of Vata Dosha along with Kapha and Meda involvement. Obstruction of Rasavaha and Raktavaha Strotas resembles the pathological process of atherosclerotic plaque formation. Agnimandya (impaired metabolism) and accumulation of Ama correlate with lipid deposition and vascular inflammation. The Ayurvedic Samprapti model demonstrates similarities with the progressive stages of atherosclerosis and ischemic heart disease. **Discussion-** The etiological factors described for Hritshoola, such as improper diet, sedentary lifestyle, stress, and excessive intake of heavy and unctuous food, parallel modern cardiovascular risk factors. The concept of Srotorodha (channel obstruction) provides a theoretical framework comparable to arterial narrowing and blockage. Early correction of Dosha imbalance and lifestyle modification as per Ayurvedic principles may help prevent disease progression. Integrating Ayurvedic preventive strategies with modern screening methods may reduce cardiovascular morbidity. **Conclusion-** Hritshoola can be conceptually correlated with atherosclerotic heart disease based on similarities in pathogenesis. The Ayurvedic Samprapti model offers valuable insight into disease prevention and early intervention. Adoption of Ayurvedic dietary, lifestyle, and preventive measures may contribute to reducing the global burden of cardiovascular diseases. Further clinical research is required to validate these correlations scientifically.

KEYWORDS : Hritshoola, Atherosclerosis, Myocardial Infarctions, Hridroga, Nidan, Samprapti, IHD, Dhamani Praticchaya

INTRODUCTION

The human heart is responsible for providing tissues with vital nutrients, and facilitating waste excretion. Consequently, cardiac dysfunction causes devastating physiologic consequences. Disruption of any element of the heart – myocardium, valves, conduction system, and coronary vasculature, can adversely affect pumping efficiency thus leading to morbidity and mortality.^[1] Cardiovascular diseases (including coronary artery diseases) is number one cause of worldwide mortality, with about 80% of the burden occurring in developing countries. The attacks of acute coronary syndromes, which include acute myocardial infarction, unstable angina and sudden ischemic death. Ayurveda describes the word pain through terms like 'shoola, ruha, toda', etc. as and when required according to the context.^[2] The etiologic role of severe coronary atherosclerosis (more than 75% compromise of lumen) of one or more of the three major coronary arterial trunks in the pathogenesis of about 90% cases of acute MI.^[4]

Effect on Myocardial Ischemia^[5]

Depending Upon the Suddenness of Onset, Duration, Degree, Location and Extent of the Area Affected By Myocardial Ischemia

- 1) Asymptomatic state
- 2) Angina pectoris (AP)
- 3) Acute myocardial infarction (MI)
- 4) Chronic ischemic heart disease (CIHD)/Ischemic cardiomyopathy/ Myocardial fibrosis
- 5) Sudden cardiac death

Hritshoola is a symptom of many cardiac and other associated systemic diseases. Epidemiologically more than 10 million people suffer from Hritshoola or Angina pectoris per year in India. Hritshoola is vividly discussed in Ayurvedic literature either as an individual disease or symptoms of other disease.

Need of Study- This paper mainly focuses on classical Ayurvedic descriptions of Hritshoola and related concepts (Hridroga, Dhamani Praticchaya, Sanga) and compares them with contemporary pathophysiology of ischemic heart diseases and reviews Ayurvedic

diagnostic correlations, proposed pathogenesis from the Ayurvedic perspective, and evidence for Ayurvedic interventions like diet, exercise, Yoga, ayurvedic medicinal formulations.

MATERIALS AND METHODS

Sources of Data

This is a literary and conceptual research study, based on:

- Classical Ayurvedic texts (e.g. Sushruta Samhita)
- Modern textbooks on Cardiovascular disorders (e.g. Davidson's Principles and Practice of Medicine, Harsh Mohan textbook of pathology).
- Peer-reviewed research articles from PubMed, AYU, and Journal of Ayurveda and Integrative Medicine (JAIM).

Method of Analysis

The study involved a comparative analysis of the stages of disease progression as described in Sushrut Samhita and their correlation with the etiopathogenesis of ischemic heart diseases. The relevance of Ayurvedic Samprapti and Dosha-Dushya Sammurchana was critically evaluated in the context of hritshoola. Preventive Ayurvedic strategies were also reviewed.

RESULT

In the Samprapti of hritshoola, there is obstruction in the Rasavaha Strotasa due to abnormally vitiated Kapha and Pitta causing the narrowing of lumen (due to vitiated vata) of coronary artery causing Dosh Dushya Sammurchana (obstructive pathology) causing severe pain ischemic heart disease like Atherosclerosis of coronary artery.^[6]

कफपित्तावृत्तस्तु मारुतो रसमुच्छिन्नतः ।

हृदि स्थितः कुरुते शूलमुष्णस्वासा रोषकं दृढम् ॥

स हृच्छूल इति ख्यातो रसमारुतसंभवः ॥ सु.उ. ४२।१३२^[7]

Clinical Features of Hritshoola and Ischemic Heart Disease-[1]

These events of pathology causing symptoms which are more similar

to today's Ischemic heart disease like chest pain, Nausea, vomiting, Dizziness are as follows-

Hritshoola	Ischemic heart disease
Shoola	Pain in the chest
Shwasa	Difficulty in breathing
Hridgati vaishamya	Irregular heartbeats (Arrhythmias)
Bhaya	anxiety
Vaivarnya	Pale skin
Swed	Sweating
Glani	Fainting
Shrama	Weakness

DISCUSSION

Causes of Hritshoola-^[3]

According to Acharaya Charak there are following factors that can leads Hridroga like hritshoola -

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 Dosha
7. Veg Dharan -Suppression of desire or impulse
8. Unhealthy diet and polluted environment
9. Abhigata – Trauma

Investigations for the Ischemic heart diseases- (Modern Implementations)^[9]

- 1) 12 lead ECG
- 2) CT Coronary Angiography
- 3) Stress Echo Cardiography
- 4) 2D Eco Cardiography
- 5) Blood investigations like CKMB, CPKMB, Troponin T and I, Blood cholesterol level

Investigations for the Diagnosis of Hritshoola According to Ayurveda^[2]

- 1) **Trividh Pariksha** -Darshana, Sparshana and Prashana
- 2) **Panchavidh Pariksha**- Nidan (examination of etiological factors), Poorva roopa (symptoms of disease), Roopa (clinical features of diseases), Upashaya (empirical therapy for differential diagnosis of diseases) and Samprapti (pathogenesis)
- 3) **Asthvidha Pariksha** – Nadi, Mutra, Mala, Jivha, Shabda, Sparsh, Druk, Akruati

Preventive Measures of Hritshoola or IHD^[11]

- 1) Population-level interventions should focus on tobacco control, promotion of healthy foods (fruits, vegetables, legumes, and nuts)
- 2) Avoiding unhealthy foods (saturated fats, trans fats, refined carbohydrates, excessive salt, and alcohol), promotion of physical activity in everyday living, and control of ambient and indoor pollution.
- 3) At the individual level, identification of people at high multifactorial risk and guideline-driven management of hypertension, LDL cholesterol, and diabetes is required. Strategies to improve adherence to healthy lifestyles and drug therapy.

Prevention of the Hritshoola (Cardiovascular Disease)^[8]

Principle of Ayurveda is Prevention is better than cure.

- 1) Avoidance of Manas Hetu
- 2) Diet & life style modification
- 3) Rasayana therapy for Hridroga- Brahmi Rasayana, Amalaki Rasayana, Shilajeet Rasayana, Agastaya Haritaki, Chayavan-prasha Rasayana.

Management of Cardiovascular Diseases as per Ayurveda

- 4) Nidan Parivarjana (eg- change in diet & life style)
- 5) Samshodhana therapy
- 6) Vamana Karma (only Mridu Vamana only)

CONCLUSION

Understanding the samprapti of Hritshoola and its correlation to IHD offers a great framework to avoid the fatal heart diseases by doing Samprapti bhang and recognizing the Lakshana of hritshoola in time in ayurvedic view and preventive therapeutic management of hritshoola or IHD. Ayurvedic approach with the help of modern tools of investigation gives strong approach towards the treatment.

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