

19TH CENTURY CARDIAC DISORDERS IN AYURVEDA

Abstract

Ayurveda is a ancient Indian medical science. Many scholars like Charaka, Sushruta (155BC), Vagbhata, Madhav Kara, Sharngdhar, Bhav Mishra (450 AD to 1650 AD) etc have contributed immensely in the enrichment of Ayurvedic literature. In the late 19th century authors like Vinodlal sen, Gananath Sen, Gangadhar Roy etc have contributed in updating the Ayurvedic literature with time. Although we find description of heart disease in the form of acute coronary syndrome in classical Ayurvedic texts, but the description of other entities is obscure. In the book called 'Ayurved Vigyana' written by Vinodlal Sen (1870 -1910 AD), there is description of five different types of cardiac disorders, Viz.1. Vikshepika 2. Aayamika, 3. Pruthuka 4. Medasutra and 5. Parikshaya. Attempt has been made to study critically these disorders in the modern perspective. It is observed and concluded that disease Vikshepika corresponds to acute coronary syndrome in modern science. Disease Aayamika matches with the syndrome of cardiomegaly and heart failure. Disease Pruthuka coincides with hypertrophic cardiomyopathy in modern science. Disease Medasutra can be called as the fatty degeneration of heart as per modern science. Disease Parikshaya is the degenerative diseases of heart.

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I. INTRODUCTION

Cardiac diseases are on sharp rise across the globe due to various reasons. Acute coronary syndrome, heart failure, hypertrophic cardiomyopathies are routinely encountered. Hence, it become essential to look for reference of these disorders in ancient medical science. Ayurveda is ancient Indian medical science. Though in classical Ayurvedic books, we do not get the reference to modern cardiac disorders except angina pectoris but in the book called 'Ayurved Vigyana' written by Vinodlal Sen (1870 -1910 AD), there is description of five different types of cardiac disorders, Viz.

1. *Vikshepika*
2. *Aayamika*
3. *Pruthuka*
4. *Medasutra*
5. *Parikshaya*.

The book 'Ayurved Vigyana' is written in Sanskrit language. Here, attempt is made to understand these cardiac disorders in the view of modern scientific progress. The disorders mentioned are as follows:

1. *Vikshepika*

- **Clinical Features** ^[1]
 - Severe chest pain
 - Pain radiation to neck and back
 - Pricking or burning pain
 - Palpitations
 - Breathlessness
 - Sweating
 - Cyanosis
 - Altered consciousness
 - Cold skin
 - Death

The features like severe chest pain radiating to the jaw and back associated with breathlessness and sweating in **Vikshepika** is indicative of acute coronary syndrome. Cyanosis indicates the failing heart. Altered consciousness is due to the reduced forward flow to the brain. Now a days it can be diagnosed early with electrocardiography and echocardiography and by evaluation of troponins.

- **Prognosis:** Bad if not treated early. The prognosis mentioned by acharya Vinodlal Sen, is still true. The 30% cases of acute coronary syndrome they do die despite offering best possible treatment.

2. *Ayamika*: 'Aayam' literally mean 'stretching'(enlargement). In the disease 'Aayamika', there is chamber enlargement of the heart.

- **Clinical Features** ^[2]

- Dyspnea
- Palpitations
- Giddiness
- Syncope
- Insomnia
- Anorexia
- Ascites
- Weakness
- Cachexia

In the disease **Aayamika**, there is chamber enlargement of the heart. The cause of cardiac dilatation includes, valvular heart diseases, congenital heart diseases. The syndrome of Ayamika is indicative of **heart failure**. Dyspnoea is due to pulmonary congestion. Symptoms like Giddiness, syncope, weakness are due to reduction in forward flow to the brain. Anorexia and ascites are features of hepatic and portal congestion due to back pressure. Treatment is of the underlying cause and resultant heart failure and aimed towards improving cardiac function.

3. **Pruthuka**: The heart disease ‘Pruthuk’ mentioned in ‘Ayurved Vigyan’ by Vinodlal Sen refers to the hypertrophy of the heart.

- **Aetiology**: Same as the causes responsible for dilatation of the heart.
- **Pathogenesis**: There is cardiac chamber hypertrophy following dilatation of the heart.

- **Clinical Features** ^[3]

- Palpitations
- Cyanosis
- Breathlessness
- Weakness
- Vertigo
- Confusion

The heart disease ‘**Pruthuka**’ mentioned in ‘Ayurved Vigyan’ refers to the hypertrophy of the heart. The cardiomyopathies are a group of chronic heart muscle disorder of unknown cause. Common causes of specific heart muscle disease includes cardiovascular causes like CAD, hypertension, chronic valvular disease. Infective causes like Influenza, varicella, mumps, herpes simplex, Coxackie virus, protozoal (Chaga’s disease). Metabolic causes like Kwashiorkar, Thiamine deficiency (beriberi). Endocrine causes like Thyrotoxicosis, myxoedema, diabetes mellitus. Toxic causes like Alcohol, cytotoxic drugs (danorubicin). Neuromuscular causes like Muscular dystrophy, Freidreich’s ataxia. Connective tissue causes like SLE, polyarteritis nodosa. Infiltrative causes like Sarcoidosis, neoplastic, hemochromatosis.

4. **Kaushthika**: The heart disease ‘Kaushthika’ mentioned in ‘Ayurved Vigyan’ by Vinodlal Sen refers to the infection and inflammation of the endocardium of the heart.

- **Aetiology**
 - Rheumatic Heart Disease
 - Chest trauma
 - Pericardial effusion

- **Pathogenesis:** There is cardiac chamber enlargement due to above causes

- **Clinical Features** ^[4]
 - Palpitations
 - Cyanosis
 - Breathlessness
 - Cough
 - Fever
 - Weakness
 - Vertigo
 - Irregular appetite
 - Gradual edema feet
 - Syncope
 - Convulsions
 - Irregular Pulse

The disease *Kausthik* resemble the modern infective endocarditis. Infective endocarditis is a microbial infection of heart valves or the endocardium in proximity to congenital or acquired cardiac defects. Infection of the endothelial linings of arterial aneurysms or AV fistula produces a similar illness. **Streptococcus viridians** is the most common infecting organism. These organisms are the part of the bacterial flora of the pharynx and upper respiratory tract and the infection may follow dental extraction, tonsillectomy or bronchoscopy. **Staphylococcus aureus** may cause subacute endocarditis (SBE) and is responsible for 50% of the acute forms. Patients with CVP line for parenteral feeding, temporary pacemaker are prone to this infection. Cellulitis or abscess are also the source of infection. **Enterococcus fecalis** is commonly found in elderly with prostatic disease. In women with UTI or after pelvic surgery. **Staphylococcus epidermis, histoplasma, brucella, candida and aspergillus infections** with these organisms is commonly found in IV drug addicts, alcoholics and patients with prosthetic valves ^[8].

- **Prognosis:** Very bad. Hardly any survives by luck. But with advent of powerful antibiotics this condition is treatable now. Hence, same will be discussed in modern view of this disease.

5. *Aavaranika*

- **Aetiology**
 - Rheumatic Fever
 - Renal diseases
 - Consumption of cold food, beverages and cold environment.

In the above aetiology, *Aamvata* refers to rheumatic heart disease secondary to rheumatic fever. Renal diseases leading to uremia may cause pericardial effusion. Consumption of cold food and beverages and cold environment may indicate towards viral aetiology.

- **Pathogenesis**

- The above aetiology, affects the pericardium due to lack of treatment.
- Rheumatic fever pathology causes inflammation in heart and its valves.
- And thereby leads to collection of fluid in the pericardial sac.

- **Clinical Features** ^[5]

- Burning in chest
- Fever
- Acute chest pain
- Heart fibrillation
- Dyspnoea
- Cough
- Nasal bleed
- Weakness
- Anorexia
- Edema feet

- **Investigation**

- Irregular pulse

- **Treatment**

- It should not be neglected and be treated on priority.
- Ratnakar Rasa 500 mg tid

6. **Medasutram:** The heart disease '*Medasutram*' mentioned in '*Ayurved Vigyan*' by Vinodlal Sen refers to the fatty degeneration of the heart.

- **Aetiology:** Consumption of fat rich foods

- **Pathogenesis:** In this disease fat droplets gets deposited in heart muscles.

- **Clinical Features** ^[6]

- Palpitations
- Weakness
- Vertigo
- Syncope
- Slow pulse
- Depression
- Heart muscle weakness
- Rupture of heart

- **Prognosis:** Bad if not treated early. The disease '*Medasutram*' mentioned in '*Ayurved Vigyan*' refers to the fatty degeneration of the heart. Fatty degeneration of

the heart is a retrogressive condition in which fat droplets are found in the myocardial sarcoplasm. It is usually secondary to such conditions as myocarditis, pericarditis, coronary arteriosclerosis, myocardial insufficiency, starvation, anemia, fever, phosphorus or arsenic poisoning, diphtheria, scarlet fever, typhoid fever and various other diseases but has been noted to occur without any demonstrable cause. The condition is common, especially in minor degrees. Diffuse fatty degeneration occurs in the senile heart, or in coronary artery disease^[9]. A decade ago this condition was more frequently diagnosed than it is now. Opinion is divided over considering fatty degeneration of the heart as a cause of sudden death. The current opinion is that fatty infiltration into the myocardium (lipomatosis or cor adiposum) rarely affects cardiac function. This may not be entirely true. Rupture during acute myocardial infarction has certainly been shown to be more common in the fatty heart. In the year 2018 study by Dr. Shailesh Pitale and Dr. Anagha Sahastrabudhe from Nagpur in their presentation at world heart congress, Amsterdam, showed that epicardial fat is responsible for the coronary artery disease. After deep study they found that the markers for monocytes chemoattractant protein -1 gene (MCP1) are more expressive in peoples with CAD. In such patients monocytes are recruited and they release markers which attract the foam cells in arteries to cause blockages. They also found that blockages were found in the coronary arteries which were surrounded by epicardial fat.^[10]

7. **Parikshaya:** The heart disease '*Pari Kshaya*' mentioned in 'Ayurved Vigyan' by Vinodlal Sen refers to the atrophy of the heart muscles.

- **Aetiology:** It occurs due to all the causes leading to emaciation.
- **Pathogenesis:** The atrophy of heart muscles occurs
- **Clinical features**^[7]
 - Palpitations
 - Breathlessness
 - Weakness
 - Vertigo
 - Anorexia
 - Gradual edema feet
 - other features may also occur.
- **Treatment**
 - Symptomatic
 - Rest and restriction of physical activities
 - The healthy, good nutrition

The disease **Parikshaya** mentioned in Ayurved Vigyan, refers to the cardiac atrophy which is a decrease in the size, strength, weight, and activity of the heart. **Atrophy of a cardiac muscle** generally develops at senile age and is called as a physiological atrophy. Acute shortage of proteins, carbohydrates, vitamins and various microcells is observed that also leads to development of a miocardiodistrofiya. At pathological processes of infectious character, food

poisonings, abuses of alcohol are the main reason for pathological changes in a cardiac muscle changes. The excessive constant physical overstrain too is considered an important factor in development of an atrophy of a myocardium, especially at persons of young age. Because of the strengthened expense of reserve opportunities of muscles there is their fast wear. General cardiac atrophy may arise from causes that impair or interfere with the nutrition of the body, the heart sharing in the general atrophy, cancer of the stomach, phthisis pulmonalis, long suppurative processes, Bright's disease, etc., being examples. Partial obstruction of the coronary arteries may give rise to atrophy by impairing the heart's nutrition. The **clinical picture** differs at different patients because of the reasons of emergence of an atrophy of a myocardium and existence of associated diseases. If process is compensated, symptoms may not appear for several years. Emergence and development of an illness can begin at any age. Patient may complain easy fatiguability, exertional dyspnoea, syncope. Features of heart failure may occur.

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