

# INTERPRETATION OF ISCHEMIC HEART DISEASE IN TERMS OF AYURVEDIC SIX STAGES OF PATHOGENESIS & THERAPEUTIC INTERVENTION (SHAT KRIYAKALA)

## Abstract

The death due to ischemic heart disease is increasing in Indian population at an alarming rate and accounts for around 15-20% of all deaths. The number of factors play role in the development of ischemic heart diseases but over consumption of oily fatty food and unhealthy lifestyle (mithya ahar vihar) with mental stress are the important basic factors enumerated by both the science. Shatkriya Kala is a unique pathological concept in Ayurveda developed with aim of treating the diseases at various stages of pathogenesis. Ancient Ayurvedic acharyas had stated 6 such stages of therapeutic intervention with reference to six stages of pathogenesis namely sanchaya, prakopa, prasara, sthansanshraya, vyakti and bheda. If disease is treated in early stages, it does not lead to complications. Hence, it is essential to apply the Ayurvedic concept of pathogenesis like 'Shat Kriyakala' to ischemic heart disease so as to study it from Ayurvedic pathological point of view and to evolve a strategy to deal with it, based on the Ayurvedokta principles of treatment particularly in terms of shatkriyakalas. The study of ischemic heart disease with reference to Shat Kriyakala, showed that the pathogenesis of ischemic heart disease can very well be arranged in Ayurvedokta six stages of Shat Kriyakala and treatment could be framed as per different stages. With the help of modern investigations, these six stages could be confirmed.

Keywords: Ayurveda, Kriyakala, Ischemic

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## I. INTRODUCTION & NEED OF THE STUDY

The death due to ischemic heart disease is increasing in Indian population at an alarming rate and accounts for around 15-20% of all deaths. The number of factors play role in the development of ischemic heart diseases but over consumption of oily fatty food and unhealthy lifestyle (*mithya ahar vihar*) with mental stress are the important basic factors enumerated by both the science. *Shatkriya Kala* is a unique pathological concept in Ayurveda developed with aim of treating the diseases at various stages of pathogenesis. Ancient Ayurvedic acharyas had stated 6 such stages of therapeutic intervention with reference to six stages of pathogenesis namely *sanchaya*, *prakopa*, *prasara*, *sthansanshraya*, *vyakti* and *bheda*. If disease is treated in early stages of pathogenesis, it does not lead to complications. Hence, it is essential to apply the Ayurvedic concept of pathogenesis like '*Shat Kriyakala*' to ischemic heart disease

So as to study it from Ayurvedic pathological point of view and to evolve a strategy to deal with it based on the *Ayurvedokta* principles of treatment particularly in terms of *Shatkriyakalas*.

## II. SHAT KRIYAKALA IN SUSHRUT SAMHITA (SIX STAGES OF PATHOGENESIS AND TREATMENT)

Following six stages of pathogenesis and therapeutic intervention are mentioned by acharya Sushruta :<sup>[1]</sup>

1. *Sanchaya* (Stage of Accumulation of Doshas)
2. *Prakopa* (Stage of Quantitative increase of Doshas)
3. *Prasara* (Stage of Spread of Doshas)
4. *Sthansanshraya* (Stage of localization of Pathology)
5. *Vyakti* (Stage of Appearance of Features)
6. *Bheda* (Stage of Differentiation, Chronic course)

As per acharya Sushruta, if the aggravated *dosahs* are flushed out of the body during stage of accumulation then disease does not advance to the further stage. Hence it is essential to identify these stages properly and intervene appropriate time.

## III. ISCHEMIC HEART DISEASE (IHD) AS PER MODERN SCIENCE

IHD refers to the condition where there is imbalance between the myocardial oxygen demand and its supply due to the obstruction of blood supply in coronary arteries. Atherosclerosis in coronary artery and Thrombosis are the commonest causes responsible for it. <sup>[2 & 3]</sup>

## IV. INTERPRETATION OF IHD IN TERMS OF SHAT KRIYA KALAS

1. **Sanchaya (Stage of Accumulation WRP IHD):** This stage characterizes with accumulation of Kapha and fat in the body due to consumption of Kapha aggravating factors.

- **Investigations To Diagnose The stage:**

- The lipid profile may show borderline dislipidemia.
- This is the first stage of treatment.
- Vamana (emesis) should be applied to get rid of the accumulated Kapha.

During stage of accumulation, in case of IHD the subjective features like heaviness of the body, increase in weight, exertional dyspnoea may appear. Vamana may be advised at this stage to get rid of the excess Kapha in the body along with life style measures like exercise.

**2. Prakopa (Stage of Quantitative increase WRP IHD):** This stage characterizes with increase in body fat deposition reflecting as enlargement of abdomen, breast, gluteus etc.

- **Investigations To Diagnose The stage:**

- The lipid profile may show moderate dislipidemia.
- This is second stage of treatment.
- *Medohara* (antilipids) drugs should be given along with physical exercise.

During the stage of *prakopa*, in case of IHD the subjective features like laziness, sleepiness may appear.

**3. Prasara (Stage of Spreading WRP IHD):** This stage characterizes with deposition of body fat in various part including blood vessel lumen. Increase in body mass index.

- **Investigations To Diagnose The stage :**

- The lipid profile may show severe dislipidemia.
- This is third stage of treatment.
- *Rukshan* (dryers), *Lekhan* (scrapping) drugs like *Gugulu*, *Gomutra*, *Rasanjan* and exercise should be advocated at this stage.<sup>[4]</sup>

During the stage of *Prasara*, in case of IHD the subjective features like easy fatiguability, exertion dyspnoea may occur with objective evidence of features of obesity. Lipid profile may show dislipidemia at this stage. Ayurvedokta anti-obesity measures should be undertaken at this stage.

**4. Sthansanshraya (Stage of localization of pathology WRP IHD):** This stage characterizes with partial occlusion of coronary arteries with atherosclerotic plaque. Features like exertional dyspnoea, fatiguability may occur.

- **Investigations To Diagnose The stage :**

- Lipid profile – dislipidemia (Increased LDL cholesterol and Triglycerides)
- Exercise ECG /TMT performance may be affected.
- This is fourth stage of treatment. All the above measures along with administration of *Yawa Kshara*, *Lekhan basti* should be carried out. From modern point of view statins could be started.

During the stage of *Sthansanshraya*, the fat gets accumulated in lumens of the coronary blood vessels and may give rise to the features like fatigue, weakness, intermittent chest pain, dyspnoea on slightest exertion. Along with dislipidemia, TMT performance is also affected at this stage. *Ayurvedokta lekhan chikitsa* should be instituted at this stage. From modern point of view statin therapy should be started.

**5. Vyakti (Stage of development of features WRP IHD):** This stage characterizes with complete occlusion of coronary arteries with atherosclerotic plaque and development of typical features like chest pain radiating to left arm or jaw with breathlessness, anxiety, palpitations etc.

• **Investigations To Diagnose The stage:**

- ECG shows ST-T changes.
- Coronary Angiography (CAG) shows coronary occlusions.
- 2-D Echocardiography shows regional wall motion abnormalities.
- Serum Troponin and CPK-MB elevated.
- This is fifth stage of treatment.
- Ayurvedic management - *Kshar* preparations to lyse the thrombus.
- Modern management- Thrombolytic therapy followed by platelet inhibitors, antianginals and statins. Primary Angioplasty

During the stage of *Vyakti awastha* with respect to IHD, features like severe chest pain radiating to left arm, jaw along with tachycardia and breathlessness may occur. ECG shows ST segment changes in the form of depression or elevation, 2-D echo shows regional wall motion abnormalities. Coronary angiography shows blockages in coronary arteries. Treatment wise antianginals, platelet inhibitors and thrombolytics should be started at this stage.

**6. Bheda (Stage of complications WRP IHD):** This stage characterizes with development of complications of MI like ventricular fibrillation, myocardial rupture, papillary muscle rupture, pericarditis, acute heart failure, ventricular aneurysm, ventricular septal rupture, embolism, Dressler's syndrome.

• **Investigations To Diagnose The stage :**

- ECG may show arrhythmia and flutter waves.
  - 2-D Echocardiography is diagnostic of papillary muscle rupture, ventricular septal rupture and ventricular aneurysm.
  - This is the last stage of treatment.
  - Treatment of the complications should be done. For. e.g. DC cardioversion for fibrillation. Surgical repair of papillary muscle rupture or ventricular septal rupture.
- During *Bheda awastha* with respect to IHD, complications like ventricular rupture may occur which require surgical intervention, arrhythmia require DC cardioversion or medical cardioversion. Thus, IHD can be better managed as per the six stages of *Shat Kriya Kalas*.

## V. CONCLUSIONS

- The study of ischemic heart disease with reference to *Shat Kriyakala*, showed that the pathogenesis of ischemic heart disease can very well be arranged in *Ayurvedokta* six stages of *Shat Kriyakala* and treatment could be framed as per different stages. With the help of modern investigations, these six stages could be confirmed.
- It is concluded that if each stage of *Shat Kriyakala* is properly diagnosed with the help of modern investigations, then IHD can very well be managed at very earlier stage and overt mortality can be avoided with proper stagewise intervention.

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