

Ayurveda Approach for Ischemic Heart Disease - A Case Report

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Abstract:

Vathaja Hruth Rogha mostly correlated to Ischemic Heart Disease (IHD) and to introduce desirable food & lifestyle (*Pathayahara viharana*) mentioned in authentic texts in Ayurveda. The patient was under the treatment from Heart Disease clinic at Bandaranaike Memorial Ayurvedic Research Institute. Sixty five year old male patient presented with very recent history of IHD diagnosed as Class II angina. Angiogram diagnosed as Triple Vessel Disease and Left Main Coronary Artery 50- 60 % stenosis. With reference to causative factors and clinical features it was diagnosed as *Vathaja Hrud Rogha*. After 12 weeks of treatment continuously with *Danyakashunti* decoction, *Lavangadi Choorna* (herbal powder), *Nawarathna kalkai* (semi solid preparation) and *Dashanga Guggulu* pills including dietary and lifestyle modification. Symptoms of angina and breathlessness disappeared, the patient still under the follow up treatment in the heart disease clinic completed almost three years. The patient's clinical evaluation and normal ECG confirms that the treatment principle in Ayurveda and herbal preparations for *Vathaja Hrud Rogha* would be effective treatment modality for the patients with Ischemic Heart Disease.

Key words: Ayurveda, Herbal preparation, Ischemic Heart Diseases, *Pathyahara viharana*.

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Introduction:

Coronary Heart Disease (CHD) is the leading cause of death worldwide, and its incidence is rapidly accelerating in developing countries. According to the WHO, around 17.7 million people died from CHD in 2015^[1]. According to the latest WHO data published in 2017 CHD Deaths in Sri Lanka reached 28,554 or 22.52% of total deaths^[2]. Even if the disease does not cause death, conditions such as myocardial infarctions can create long term impacts on the patient which may reduce the quality of life and reduce the lifespan of the patient. Although advance treatment and diagnostic techniques for Heart diseases available in modern medicine; they are not affordable for every patient.

According to Ayurveda, There are five types of heart disease described authentic texts according to *Dosha* namely; *Vataja*, *Pittaja*, *Kapaja*, *Sannipathaja* and *Krimija* respectively and predominantly involving pain, burning, phlegm, combination of those three and bacterial infections^[3]. Etiological factors of *Vathaja Hrud Rogha* are well described in text explained as;^[4] Sorrow (*Shoka*), fasting (*Upavasa*), excessive exercises (*Vyayama*), foods with excessive dryness, unwholesome food less quality and quantity (*alpabojanni*) leads to vitiation of *vatha dosha* involving heart functions results in *vatahja hrud rogaha*.

Excessive intake of hot and heavy food, astringent and bitter taste more, intake of food before digestion of previous meal, physical strain, emotional feelings and suppression of natural urges results in vitiation of *Doshas* (*Vata*, *Pitta* and *Kapha*) thereby abnormality of *Rasa dhathau* (mostly correlated to plasma) which afflicts in the heart^[4].

The treatment modality in *Vathaja Hrud rogaha* would be more *Vatika Hrechhula* described in Ayurveda simulates with pain come from Ischemic Heart Diseases. The treatment

protocol explained as follows^[4]; the treatment line concerned application of oil, induce vomiting and oral administration of decoctions prepared by *Sulupasmula*, and *Mahapasmula*. Including *Shalaparni prushnaparni vruhathi kantakarika* and *bilvaginimanth shyonaka*.

Case report:

In this single case study 65 year old male patient presented with very recent history of IHD diagnosed as Class II angina visited to Heart Disease clinic at Bandaranaike Memorial Ayurvedic Research Institute (BMARI). It was recorded that presenting symptoms, past medical history, and clinical signs and the patient was clinically evaluated by once in two weeks. The symptom breathlessness were measured by mMRC (Modified Medical Research Council) breathlessness scale^[5]. According to patients' presenting clinical features and past medical history it was diagnosed as the patient should have got ischemic heart disease which is correlates with *Vathaja Hruth Shoola*.

Although the classical text explained the treatment protocol for *Vathaja Hrud Roga* as application of oil and induce vomiting as the line of treatment, the patient reluctant to follow the treatment procedure of vomiting^[4]. Therefore, the patient was managed according to the modified treatment protocol according to treatment principle of Ayurveda that was firstly lightning the body which is termed as *Langhna* measures that was to eliminate *Ama* there after pacifying vitiated *Doshas* finally strengthen the heart functions termed as *Tharapana chikithsa*. The term *Langhna* therapy could be introduced in nine ways out of which three ways selected for management of this patient. Firstly, introducing the decoctions prepared with herbs predominant with *Deepana Pachna* properties, Secondly *Vyayama* (suitable exercises) thirdly *Upavasa* by *laghuahara* (light diets). For the purpose of *Tharapana chikithsa* the traditional

drug preparation *Dashamoola* decoctions added with *Kubukpithu* (*Arjuna*) and the powdered medicine termed *Makaradwajaya* prepared with herbomineral ingredients was given for one month. The selected polyherbal medicinal preparations were administered according to treatment protocol (Table-1) [6, 7, 8, 9, 10, 11, 12].

The patient was clinically evaluated and following the investigations prior to the treatment and once in two weeks while treatment. The patient was advised to take desirable food (*Pathayahara*) and to follow day to day works with 30min walking exercise 4-5 days per week (*Pathya Viharana* life style modification). Also the patient was advised to follow the clinic on Cardiology unit for in order to following up with modern investigations.

Where the Desirable Food (*Pathyahara*) concerned according to *Charaka Sanhitha* the patient was advised to take Cereals - Red rice (*rakthashali*), Green gram (*Vignaradiata*), Kollu, (*Dolichosbi florus*), Rice *Cunjee Yavagu*

in semi-solid form made old rice varieties (*Purana Raktha Shalee*), Oluhal (*Nymphaea stellate willd*). Also the patient was encouraged to take more fruits desirable and enhancing heart functions that is termed as *Hrdyadashkaya*^[13] - including Pomegranate (*Punica granatum*), Mango (*Mangifera indica*), *Ebarella* (*Spondias dulcis*), *Badara* (*Artocarpus lakoocha*), *Vrukshamla* (*Garcinia indica*), *Goraka* (*Garcinia pedunculata*), *Kudalu dehi* (*Citrus hystrix*), *Karada* (*Carissa carandas*), *Masan* (*Zizyphus jujabalam*), *Nas naran* (*Citrus medica*).

Also the patient was encouraged to prepare the curries by adding natural food additives ie *Corriandrum* (*Coriandrum sativum*), Curry leaves (*Murraya koenigii*) Cinnamon (*Cinnamomum verum*), Fennels (*Foeniculumvulgare*)^[14,15]. For *Pathya Viharana* Life Style Modification encourage Day to day activities, to practice Yoga exercises or Meditation in 30minutes^[16].

Table -1: Treatment Schedule indicating *Langhana* and *Rasayana* therapy (doses according to the classical texts)

Treatment Principle	Name of the Drug	Dose	Duration
<i>Langhana</i> Therapy (Application of <i>Deepana</i> , <i>Pachaan</i>) <i>Samana</i> Therapy)	<i>Danyakashunti</i> decoction ^[6]	120 ml	Twice per day before meals for 14 days
	<i>Nawarathna kalka</i> ^[7] <i>Lavangad ichoorna</i> ^[8]	5g 5g	
	<i>Balabilvashuntidi</i> ^[9]	120 ml	Twice per day before meals for 14 days & repeated 14 days
<i>Thripala Arjun</i> and <i>Suduru</i> decoction OR <i>Dashangha Guggulu</i> tablet ^[10]	120 ml 3 pills bd pc 2 tab bd pc		

Rasayana Therapy (Strengthen the heart function)	<i>Dashamula kubukpothu</i> decoction <i>Swarna Ghatitha Makaradvajaya</i> with beehoney ^[11] <i>Kakubhdi Choornaya</i> powder ^[12]	120 ml bd ac 1mg daily 2.5 g with Ghee	14 days & repeated Another 14 days
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Table 2- Decoctions with Predominant Taste (Calculation performed according to Classification of Shadrasa)

Name of decoction	<i>Madura</i> (Sweet)	<i>Amla</i> (Sour)	<i>Lavana</i> (Salty)	<i>Katuka</i> (Hot)	<i>Thiktha</i> (Bitter)	<i>Kashaya</i> (Astringent)
D1 (<i>Danyakashunti</i>)	21.43	0.00	0.00	28.57	28.57	21.43
D2 (<i>Balabilvashunti</i>)	50	0	25	25	0	0
D3(<i>Thripala Arjun, Suduru</i>)	15.38	15.38	0.00	23.08	15.38	30.77
D4 (Dashamulakubukpothu)	8.3	0.0	0.0	33.3	50.0	8.3

Results and Discussion:

The patient's presenting symptoms of chest pain and shortness of breath gradually disappears with treatment given for 12 weeks. The assessment criteria in Ayurveda point of view *Ashtawida Pareeksha* ^[17] (Eight- fold examination of patient) was concerned. *Nadi pareeksha* (examination pulse) and Agni (appetite), Bowel habits and frequency of urine were questioned. Examination of tongue appeared pink and moist but not any coating. Appetite of the patient's also improved but there was no change in Body Mass Index. When considering the cardio vascular system, pulse and blood pressure and heart sounds also were not noticeable changes. Even after 12 weeks time patient was followed up to now; there is no relapse of angina pain or shortness of breath. Therefore, day activities and following up the clinic yet; almost completed three and half years up to now. After three months treatment, there is no ECG changes were found.

This case study was conducted for the purpose of assessing Ayurveda treatment approach for Ischemic heart disease. The patient was already diagnosed as TVD (Tippel Vessel Disease) according to modern medicine whereas in Ayurveda, angina pain simulates as *Vathaja Hrud Roga*. Modified Treatment protocol followed firstly *Langhna*, and *Tharpana Chikithasa* respectively refers to lightning the body, pacifying vitiated *Doshas* and Strengthening heart functions.

Where the mode of action of these decoctions concerned in terms of Ayurveda, Initial application of drugs enhancing process of *Agni* (*Deepana, Pachana*). The decoctions named *Danyakashunti* (D1) ^[6] and *Balabilvashunti* (D2) ^[9] predominantly found *Deepana Pachana* properties. Secondly applied decoction was *Thripala Arjun, Suduru*(D3), which is traditionally used decoction in Unani medicine was included in this treatment protocol for supplementary actions of *Vatanulomana* , *hardya* and enhancing *Agni* process. Because of

the fact that atherosclerotic changes correlate with *Damani parichya* ^[18] due to *Ama* (by products of *Dhathu Paripachna* processes) these decoctions might be responsible for improving Agni process specially *Medodathwagni* in the body. Finally *Dashamula kubuk pothu* (D4) decoction found *tharapana* properties was administered. The pharmacological actions of the decoctions concerned it is explained as *Rasa* (Taste), *Guna* (Properties), *Veerya* (Potency) and *Vipaka* (End product). It was revealed that most of decoctions are composed of *Katuka* (hot), *Thiktha* (Bitter) and *Kashaya* (Astringent) tastes are predominant ingredients (Table- 2).

The six different taste produce different biological functions within the human body as explained in authentic text of *Charaka Samhitha*.^[19] It was clearly explained that *Katuka Rasa* causes for dissolving blood clotting (*Shonitha sanghata Bheenanthee*) thereby clearing off the blood vessels (*Marganvivarnothee*). Furthermore, in Ayurveda obstruction of any vessel termed as “*Srothus Awarodha*”. Therefore, it understood that the ingredients of these PHF caused in clearing off the blocks in coronary blood vessels. *Bala* (*Sidacordifolia* Linn.), *Belimul* (*Aeglemarmelos* L), *Shunthi* (*Zingiber officinale*), *Pippali* (*Piperlongum* Linn.), *Yashtimadhu* (*Glyccerrhiza glabra* Linn.), *Haritaki* (*Terminalia chebula* Retz.) and *Dashmoola*, etc., clearly indicates that they are possessing hypotensive, hypocholesteremic, anti-platelet and thrombolytic activities which play a crucial role in the management of cardiovascular and cerebrovascular disorders ^[20].

In addition, considering the Dietary and Lifestyle modification, recent analytical studies confirmed that the traditional rice varieties rich in Anti-oxidants because of the presence of natural pigments and phyto chemicals in Bran of the seeds ^[21]. Moreover, there are some fruits which are rich in acids that can enhance the heart

functions. These ten fruits’ mentioned as desirable ten fruits for heart *Hurdy Dashakaya*. According to the Ayurveda explanation these fruits contain *Lagu* (lightness), *Ruksha* (roughness), *Ushna* (warm) and *Thikshna* (acid) properties which keep the heart function normal. Furthermore, *Ushna* (warm) *Virya* (potency) and *Amla* (acidic) *Vipaka* (End product) doing the *Ama Pachana* leads to neutralize the byproducts produced in the process of metabolism. *Prabhava* (special potency) of those fruits consist of *Hrudya* which helps to keep the heart function healthy. All these foods are rich in Anti-oxidants thus enhance the heart functions and lesser the destruction of the heart muscles. Scientific evidence is available on the usefulness of several Ayurveda drugs in cardiovascular diseases. Clinical studies have shown the efficacy of the bark of *T. arjuna* in congestive cardiac failure, chronic stable angina and hypertension ^[20-21]. *T. arjuna* and its constituent, Arjunolic acid have shown cardioprotective effects due to antioxidant activity in rats ^[22, 23]. Alcoholic extract of the bulb of *Allium ascalonicum* (*single clove garlic*) showed significant anticoagulant, fibronolytic and hypocholesterolaemic activity in rabbits ^[24].

Conclusion:

The study's results suggest a favorable effects for arterial function and multiple risk factors in patients suffering from coronary heart disease. Hence, it was concluded that the treatment procedure with Poly herbal formulations were effective treatment modality for ischemic heart disease according to the Ayurveda medicine.

Limitations of the study:

Limitations: As this single case study, furthermore, randomized clinical trials needs to be done for the confirmation of Ayurveda treatment modality in the management of Ischemic Heart Diseases (IHD).

Consent of Patient:

The authors certify that they have obtained appropriate patient consent form. The patient has agreed that his images and other clinical information is to be reported in the journal. The patient understood his name and initials will not be included in the manuscript and due efforts will be taken to conceal his identity.

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