



Understanding emergency management of *Hridroga* and its Scope in present era in Ayurveda: A Review

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World Journal of Advanced Research and Reviews, 2022, 16(03), 1092–1097

Publication history: Received on 19 November 2022; revised on 26 December 2022; accepted on 29 December 2022

Article DOI: <https://doi.org/10.30574/wjarr.2022.16.3.1481>

Abstract

In the modern era of evidence-based medicines and IT revolution, the 21st century is witnessing an upgradation of alternative medicine as an ultimate solution to numerous unanswered questions in medical field. All over the world, cardiovascular disease imposes a significant morbidity and mortality. In spite of having a greatly improved diagnostic and curative cardiology, millions die of heart disease every year. Heart diseases from modern perspective are not limited to the purview of *Hridroga* in Ayurveda. Instead they are widely scattered through the description of many other diseases. Ayurveda having the potential to rectify this emerging gap needs to be tested rigorously for its rationale, potential and evidence-based uses to serve what it really can. The present paper reviews upon the existing literature available in reference to *Hridroga* and subsequently elaborates the management and possibilities of erecting preventive measures of *Hridroga* through Ayurveda.

Keywords: Emergency management; *Atyaayik chikitsa*; Ayurveda; *Hridrog*

1 Introduction

It is a belief in common public that Ayurveda can treat only chronic diseases and not acute diseases. This belief is wrong, misguiding and devaluing Ayurveda. From the Ayurvedic texts it is very clear that even emergency diseases or acute diseases were very well treated by Ayurvedic treatment. Ayurvedic has been criticized for no availability of emergency management, which is mere a belief. They may be aroused whether there was no emergency in ancient times and people were suffering only from chronic ailments? The answer to this question is no and people were managed in life threatening conditions too. There is documentation in the literature of daruna and ashukari (emergency) diseases, which implies that emergency was managed using ayurvedic medicines.

The present work aims to study the ayurvedic basis of emergency management and also to study the text for necessary reference that describes emergency management. To fulfil the discussed aims and objective relevant ayurvedic and modern literature are required. The comparative study of both the literature and correlational method is adopted in the study.

2 Review of literature

According to Ayurveda "HRIDAYA" is most important *marma* and *pranayatana*. It is also moolsthana of Ras and Rakta vaha srotasa. Modern science says Heart is cardinal organ of respiratory and circulatory system. It is very essential to know Ayurvedic anatomy, physiology of *hridaya* in modern terms, to know pathology of heart diseases and then we will be able to give ayurvedic solution to modern heart diseases.

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2.1 Anatomy

Heart is made up of specialised tissue called myocardium. With four chamber and valves in between them and working in rhythmic manner continuously. According to Ayurveda myocardium can be correlated with *mamsa dhatu*. And those rhythmic contractions are due to *vayu*.

“HRU”- means Harati (to receive from).

2.2 Physiology

Blood is drained in Right atrium by both vena cava and then to right ventricles. From it, is ejected towards lung for gaseous exchange and then again return back to heart in left atrium then to left ventricle. From it is ejected to periphery. Ayurveda also described in same way, that *saman vayu* brings aahar ras to *hridaya* and then *vyan vayu* circulate it to all over body and bring back. According to *Sharangdhar acharya*, *pran vayu* brings *amberpiyush* means oxygen inside the body by every inspiration *udana vayu* gives bala, energy to cardiac muscle.

Sadhak pitta is responsible for normal functioning of “Buddhi”, medha, and pranagni. Kapha plays role of *dharan* and *avalambana*, holding, lubricating and Shock absorbing property. According to ayurveda *utpatti* of *hridaya* is *Prasadansha* of *Rakta* and *Kapha* and hence considered as “*sira marma*” because *sira* are *rakta updhatu*.

2.3 Pathology

Hriday utpatti is very much important by the point of view of pathology and treatment. All kinds of coronary artery diseases come under *sira dushti* that is *Raktavikruti* because *sira* and *kandara* are *raktaupdhatu*. When *Raktavikruti* is due to pitta, permeability of *sira* increases due to *laghu* and *ushna*, *visra guna*, and haemorrhagic disorders occurs. When *Raktavikruti* is due to kapha, coagulability of blood increases, and atherosclerotic diseases occurs due to *guru*, *sthira* and *manda guna* of *kapha*. If *Raktavikruti* is due to *vata*, it mainly affects the rhythm of heart. So cardiac arrhythmia may develop or impulse conduction disorders like BBB, heart block seems. Congenital heart diseases are also due to *vata* dosha like ASD, VSD, PDA or Tetralogy of fallot, Coarctation of Aorta because *vibhajana* is karma of *vata* and defective *vibhajana* while organogenesis in gestational age leads to congenital anomalies etc.

According to pathology there are five types of Hridroga: *Vataj*, *Pittaj*, *Kaphaj*, *Sannipataj* and *Krimij Hridroga*.

- *Vataj Hridroga*

Acharya charaka said that, *vataprakopaka* means *rookshya*, *laghu*, *shushka* and *dhatukshayajanan* or *alpasatwa aahar* i.e. malnutrition or long term fasting and heavy work called as *ati vyayam*. Mental stress that is anxiety, sorrow, hyper excitability is also equally responsible for *vataj Hridroga*. *Vataprakop* due to *ruksha* and *laghu guna* causes hardness means calcification of arterial walls i.e. *Arteriosclerosis* which leads to *arteriosclerotic* cardiovascular heart diseases like angina, HTN -which is known as “silent killer “. Ayurveda says old age is the *dhatukshyakarak* and *vataprakopak awastha* of life hence *vaatpradhan rog* mainly occurs in old age. Modern sciences say *arteriosclerosis* generally occurs in old age. Hence we can say that all *arteriosclerotic* diseases should be treated as *vataj Hridroga* by Ayurveda. Calcification of cardiac valves also comes under *vataj Hridroga*. If *chala guna* of *vata* increases due to strains work or heavy exercises then heart rate increases. If this continues for long periods then due to heavy work load cardiac muscles got hypertrophied and arrhythmia. If it again continued then heart muscle got fatigue leads to dilated cardiomyopathy. It leads to congestive heart failure. Ayurveda named it as *Hridravata* and *Hridavyasa* in *vataj Hridroga*.

- *Pittaj Hridroga*

Acharya charaka described as due to *ushna*, *tikshana*, *vidahi*, *kshara*, *amla* and *lavana ras*, alcohol beverages, oily and spicy food, *pitta dosha prakopa* occurs, which ultimately does *raktadushti*. Fever, perspiration, excessive thirst, heart burn, giddiness, syncope, burning sensation all over body. According to modern we can correlate it with infective endocarditis, pericarditis, pericardial effusion or all inflammatory disorders of heart.

- *Kaphaj Hridroga*

Acharya charaka mentioned that *guru* and *sthira gunatmak kaph* deposits at inner lining of dhamanies called as ‘Dhamni pratichaya’-a *kaphaj naanatmaj vyadhi*. Modern sciences called it as *atherosclerosis*, a one of the leading causes of coronary heart disease, MI, and stroke in young peoples. Symptoms of *kaphaj Hridroga* are *guru bharikam uramashmavruttam* means chest heaviness like a stone is on chest, as seem in angina or MI.

- *Sannipataj Hridroga*

It is described with all above symptoms, but in high intensity, along with giddiness, syncope, nausea and acute chest pain. It is an emergency condition in which quick active management is essential.

- *Krimij Hridroga*

Ayurveda says that '*Hridayad krimi*' - a special type of parasites also cause heart disease. The patients suffering from *sannipataj Hridroga*, if take *kledajanya aahara* i.e. Til, Gud means jaggery, milk. *Kledajanya rasadushti* leads to *granthi uttpati* in which *krimi* arises. These *krimi* go into *hridaya with ras dhatu* and make erosions and *granthi* on in *dhamanies of hridaya*. Symptoms of *krimij Hridroga* are "*suchivat tudyate*" means stabbing, cutting severe chest pain, itching, nausea, chest discomfort. And advised to treat as emergency otherwise it leads to death.

All these symptoms are suggestive of, thrombo-embolic event of coronary artery leading to acute M.I. 'CHAGAS' disease is by far most important parasitic infection of heart in America caused by '*Trypanosoma cruzi*' protozoa. Heart and lungs are the thoracic organ most frequently affected by parasites.

3 Treatment

Ayurveda stated that "*pariharya visheshen manaso dukkha hetava*". As *Hridya* is the *sthana of Oja, Prana, Buddhi* and *Mana*. Hence anxiety, stress, depression or mental stress should be avoided preferably. *Shirodhara Shiropichu, Hridbasti, Pranayam, Yoga*, these are very effective for stress management. Follow the lifestyle stated by ayurveda. As *par doshadushti lakshana seems, shodhana* treatment should be done with *panchakarma*. Then we should do shaman therapy for remaining dosha with different herbal preparations. It is the *sthanvaigunya* which gives base to invade dosha. *Sthanvaigunya* means *particularly dhatuvikruti*. To repair the *dhatuvikruti dhatu paushtik aahara dravyas* should be used. Hence after *shodana* and *shamana*, give *rasayan* and *hridbalya* therapy for rejuvenation and revitalization. That will avoid the recurrence of the disease.

3.1 General Outline for Treatment for Heart Diseases

Till early eighties, it was widely believed that heart disease was virtually irreversible. This meant that once developed, the disease ran a progressive course until the coronary arteries were completely blocked. But recent studies have proven beyond doubt that not only it is possible to stall the process of artery blockage but also the blockage can be really reversed. This implies that through measures other than angioplasty (ballooning) or bypass surgery, it is quite possible to

It is quite disheartening that the highly technological approach of the modern medicine literally bypasses the underlying causes of the heart disease. Ayurveda, on the other hand, aims at striking at the very root of the disease. A real cure for this disease is only possible if we adopt a holistic approach as the one advocated in Ayurveda and address the problem at its very root. Shunning the age-old principles of healing described in the Vedas- the great Indian heritage, as unscientific only just because they are old, is most unfortunate. However, due to the intensive research work of some doctors in the west, people now have come to believe that Heart Disease can be reversed.

3.2 Effective natural treatments for Strengthening Heart

Here are some of the recommendations that Ayurveda makes

3.2.1 Nourishment

Use of Amla fruit as an excellent anti-oxidant that can help to prevent arterial damage from free radicals as well as nourishing the heart tissue. Amla can help boost the immune system and nourish the heart. Chywanaprash is a delicious nutritive herbal jam that contains Amla and is a real boost to the strength of the heart.

3.2.2 Increase circulation

A major cause of heart problems is due to hardening, inflammation or congestion of the arteries which can restrict blood flow as well as putting pressure on the heart muscle and tissue. Arjuna is one of Ayurveda's wonder herbs for strengthening the cardiac muscle, reducing arterial congestion and lowering blood pressure.

3.2.3 *Reduce Blood fats and high cholesterol*

If you suffer from high cholesterol try Triphala Guggul which combines a range of herbs known to tackle the causative problems of high cholesterol as well as reduce high levels of blood fats.

3.2.4 *Relaxation*

If you suffer from excess tension try using Ashwagandha. It is a wonder herb for helping reduce tension in the body and mind as well as strengthen the heart muscle.

3.2.5 *Dietary suggestions*

Eat a nourishing diet that removes all processed foods, poor quality dairy, poor quality oils, hydrogenated oils. Increase foods that are excellent for the heart. Use garlic, turmeric, ginger and saffron. Include whole grains, pulses and foods high in essential fatty acids such as hemp seed oil. EFAs are renowned for helping to keep arteries clean and the heart strong.

3.2.6 *Avoid over-eating and eating frequently*

Eat a light breakfast and dinner. Lunch should be the main meal. Milk products, fried foods, cold foods and acidic foods should be taken in small quantities. White flour products and foods that contain chemical preservatives and additives should be avoided. Animal products, especially red meat, are not good as they take a long time to be digested, and create a lot of toxins in the stomach.

3.2.7 *Pathyapathya*

Seasonal fruits and fresh vegetables (steamed or cooked), Brown bread or Chapatti, salad, sprouts, vegetable soup, buttermilk, cottage cheese (paneer), a little quantity of fresh milk and ghee (clarified butter) prepared from cow's milk, make up an ideal list of food items to choose from. Anything sweet should be taken in moderation. Honey and jaggery are healthier than purified sugar.

Fried things, pulses and their preparations, and groundnut oil are prohibited. Ayurvedic physicians allow butter or ghee, and not groundnut oil. Cow's ghee, cow's milk and cows' butter are useful for the patient. Buffalo ghee and buffalo milk are not recommended. Stimulants like tea, coffee and alcoholic drinks are very harmful for such patients.

In addition to maintaining a healthy eating pattern, specific foods are often recognized as particularly heart-healthy. One of the most popular of these healthful foods is fatty fish with its high omega-3 fatty acid content. A recent study determined that women who consumed more omega-3 fatty acid laden fish (two servings weekly) had a reduced rate of death due to heart disease. These researchers found that this was independent of cardiovascular risk factors or other dietary sources that may influence the development of heart disease. Good sources of omega-3's besides fish are: flaxseeds, flaxseed oil, canola oil, olive oil, sesame oil, peanut butter and oil, sunflower seeds and oil, avocado, soybean oil, and safflower oil. Additionally, flavonoids found in tea and cocoa have been recognized for their antioxidant benefit. By blocking oxidative damage to LDL cholesterol and reducing platelet clumping, flavonoids may help to reduce the risk of cardiovascular disease. An inverse association between dietary fiber intake and cardiovascular disease risk has also been proposed. This underscores the recommendation for increased consumption of fiber-rich whole grains, legumes, fruits and vegetables.

3.3 **Lifestyle suggestions for Heart Diseases**

Your heart needs a regular supply of oxygen and it also must not be overstressed. Practice light aerobic exercise and regular relaxation. Ayurveda would recommend some nourishing yoga practices, such as the dynamic 'Sun Salutation' as well as daily breathing practices (Pranayama). Ayurveda suggests exercising within your own limitations and does not encourage excessive exercise that leaves you tired. Yoga is exercise that leaves you energised and fitter.

3.3.1 *Pranayama*

A very common cause of heart diseases is mental stress. Regular practice of yoga and Pranayama (breathing exercises) reduces stress levels. Also, meditation has been scientifically proven to prevent as well as cure heart diseases.

Ayurveda considers the functions of heart and mind inter-linked. Disturbance in one affects the other. Therefore, patients having heart disease are advised to refrain from anxiety, worry, excessive sexual intercourse and wrathful

disposition. All efforts should be made for the patient to have good sleep at night. Even rest during the day is essential. He should never be permitted to remain awake at night for long.

The patient's bowels should move regularly. If there is constipation, he is advised to take a glass of water early morning and go for a walk every day. A gentle laxative like Triphala choorna may be used if required

3.3.2 Panchakarma

A gentle head massage with or without oil several times a week is very beneficial. A full-body self-massage with oil once a week is also good.

4 Conclusion

Cardiovascular morbidities are becoming the largest cause of morbidities to human population. The extent of CVD morbidity is only secondary to cancer. In the light of current epidemiological shift of diseases in a global perspective, where life style diseases, degenerative diseases and mutagenic diseases are outreaching infective pathologies, current practises in medicines are proving to be inadequate and thus the need for a pragmatic approach of medicine is needed. Ayurveda having the potential to rectify this emerging gap needs to be tested rigorously for its rationale, potential and evidence-based uses to serve what it really can.

Compliance with ethical standards

Acknowledgments

I express gratitude to the Department of Kayachikitsa and Hospital Authority for giving me this opportunity to study this particular research topic: Understanding Emergency Management of Hridroga & its Scope in present era in Ayurveda – A Review. Special thanks to Secretary of Maharashtra Arogya Mandal's Secretary, Hon'ble Mr. Anil Gujar, Hon'ble Principal Dr. Nilesh Phule and Faculty members Dr. Yogesh Kotangle, Dr. Vijayalaxmi Patil, Dr. Ritesh Damle, Dr. Kiran Ubhe for co-operating throughout the research study. Many thanks to Dr. Rohit Patil, and my colleagues, as we got to learn many new things while reviewing the research articles and our knowledge regarding the subject has been increased.

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