



AYURVEDA AND PREVENTIVE CARDIOLOGY

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ABSTRACT

Ayurveda aims at “Swasthasya Swasthya Rakshanam” and “Athurasya Vikara Prashamanam” it means protect the health of the healthy and relieve the 'disease' of the ailing, the importance given by Ayurveda for prevention is immense when compared to any other medical sciences. In Ayurveda description of Cardiovascular diseases are scattered throughout the Samhitha's. Nowadays, even modern medicine understands cardiovascular diseases to be mainly caused by a variety of modifiable risk factors. Ayurveda has employed various preventive measures in the form of Dinacharya (daily regimes), Ritucharya (seasonal regimes), Ratricharya (Night regimen) & Sadvrta (Right code of conduct) to prevent Cardiovascular diseases through lifestyle modification. In this article a honest attempt has been made to gather scattered information regarding CVD prevention.

Keywords: Preventive cardiology, Cardio-vascular diseases, Dinacharya, life style modification.

INTRODUCTION

'Hrudaya' is a speculated topic in Ayurveda. The references of *Hrudaya* are scattered and often refer to different organs based on the context. But *Hrudaya* is to be taken as *uro Hrudaya* (Heart) when it comes to the matter of *Hrudroga*. The *vyadhi's*(diseases) related to *Hrudaya* are broadly dealt under *Hrudroga*(disease of the heart). As *Hrudaya* is one among the *trimarma* (vital point) special emphasis of *hrudroga* has been done in *Trimarmiya Chikitsa Adhyaya* of *Charaka Samhitha*¹. Charaka has mentioned 5 types² of *Hrudroga* based on the *doshic* dominance. Whereas Acharya Sushruta has dedicated a separate chapter for *Hridroga*³. Though there are various modalities of treatment explained for *hrudroga*, there is equal importance for the preventive aspects also. In contemporary medicine, the class of diseases that involve Heart and blood vessels are termed as CVD's. The underlying mechanism vary depending on the disease. Coronary artery disease, stroke and peripheral artery disease involve atherosclerosis⁴. This may be caused by high blood pressure, smoking, diabetes, lack of exercise, obesity, high blood cholesterol and excessive alcohol diet consumption among others. It is estimated that 90% of CVD is preventable⁵. Cardiovascular diseases are the leading cause of death globally. Though modern medicine provides effective emergency management, it lacks behind in the effective preventive care and avoidance of recurrence.

REVIEW OF LITERATURE

Worldwide, cardiovascular disease is estimated to be leading cause of mortality and morbidity. Certain risk factors are highly inclined in causing CVD's.

Risk factors of CVD –the effect of risk factors is multiplicative rather than additive. People with a combination of risk factors are at greater risk.

Age and sex- Age is the most powerful independent risk factor for atherosclerosis. Premenopausal women have lower rates of disease than men.

Family history- Atherosclerotic vascular diseases often run in families due to a combination of shared genetic, environmental and lifestyle factors.

Smoking- There is a strong consistent and dose linked relationship between cigarette smoking and ischemic heart disease.

Hypertension- the incidence of atherosclerosis increases as BP rises, and this excess risk is related to both systolic and diastolic BP as well as pulse pressure.

Hypercholesterolemia- Risk increases with increasing serum cholesterol concentrations.

Diabetes mellitus- This is a potent risk factor for all forms of atherosclerosis and is often associated with diffuse disease that is difficult to treat.

Physical activity- Physical inactivity roughly doubles the risk of coronary artery disease and is a major risk factor for stroke.

Obesity- Obesity, particularly central or truncal is an independent risk factor.

Other dietary factors- diets deficient in fresh fruits, vegetables and polyunsaturated fatty acids are associated with an increased risk of cardiovascular diseases.

Personality- certain personality traits are associated with increased risk of coronary diseases.⁶

Risk factors – in *Ayurveda*

Samanya Nidana (etiology) of *Hrudroga* (Table no. 1)

<i>Nidana</i>	Charaka ⁷	Sushruta ⁸
<i>Atimatra ahara</i> (excess quantity of food)	-	+
<i>Ushna</i> (too hot)	-	+
<i>Ruksha</i> (too dry)	-	+
Viruddha ashana (incompatible food)	-	+
Adhyashan (having food before digestion of previous meals)	-	+
<i>Ajeerna ashana</i> (consumption of food inspite of indigestion)	-	+
<i>Asatmyaahara</i> (unwholesome diet)	-	+
Vyayama(excessive physical exertion)	+	+
<i>Vegadharana</i> (controlling natural urges)	+	+
<i>Teekshnashodhana</i> (intense purificatory therapies)	+	-
<i>Chinta</i> (tension)	+	-
<i>Bhaya</i> (fear)	+	-
<i>Karshana</i> (emaciation)	+	-
<i>Abhighata</i> (external injuries)	+	-
<i>Gadaatichara</i> (improper administration of medications)	+	-

Vishesha nidana for hridroga⁹:

Vataja Hridroga – Shoka (sorrow), Upavasa (fasting), Ati Vyayama (excess physical activity), Ruksha-Shushka (dry)- Alpa Bhojana (less quantity of food)
 Pittaja Hridroga – Ushna (hot & spicy), Amla (sour), Lavana(salty), Kshara (alkali), Katu(pungent), Ajeerna Bhojana(indigestion), Madya (alcohol), Krodha(anger) and Atapa Sevana (exposure to wind)
 Kaphaja Hridroga – Guru (heavy foods), Snigdha(fatty foods), Achinta (being calm), Acheshta (sedentary), Atinidra (excess sleep)

Relation of adharaneeya vega¹⁰ with hrudroga: (Table no.2)

Vegadharana	Effect on hrudaya
<i>Udgara</i> (Belching)	<i>Hrudaya uraso kampa</i> (feeling of tremors in <i>hrudaya</i> and chest region)
<i>Kasa</i> (Cough)	<i>Hrudayamaya</i> (diseases of heart)
Shramaswasa (Shortness of breath after exertion)	<i>Hrudroga</i>
<i>Trishna</i> (Thirst)	<i>Hrudgada</i> (diseases of heart)
<i>Bashpa</i> (Tears)	<i>Hrudruja</i> (pain in the heart)
<i>Adhovata</i> (Flatus)	<i>Hrudgada</i>
<i>Shakrit</i> (Feces)	<i>Hrudayasya uparodha</i> (obstruction to <i>hrudaya</i>)
<i>Shukra</i> (Semen)	<i>Hridayvyatha</i> (discomfort to <i>hrudaya</i>)

PREVENTIVE CARE IN AYURVEDA -

Hrudya is a term that is always associated with hrudaya which is said to be congenial for hrudaya-“hrudayaya hitham”.

Ahara and Aushadi dravyas that are having qualities beneficial to hrudaya¹¹:

Table no 3

DRAVYA (DRUG)	KARMA (ACTION)
<i>Vilepi</i> (thick rice soup)	<i>Hrudya</i>
<i>Panaka</i> (sweet drink)	<i>Hrudya, preenana</i> (Nourishing)
<i>Lasuna</i> (Allium Sativum)	<i>Hrudya</i>
<i>Dadima</i> (Punica Granatum)	<i>Hrudya</i>
<i>Saindhava</i> (Rock salt)	<i>Hrudya</i>
<i>Yavakshara</i> (Potassium carbonate)	<i>Gulma</i> (disease of abdomen), <i>hridroga, grahani</i> (IBS),, <i>Pandu</i> (anaemia)
<i>Souvarchala</i> (Black salt)	<i>Hrudya</i>
<i>Haritaki</i> (Terminalia chebula)	<i>Hrudya</i>
<i>Nagara</i> (Zingiber Officinale)	<i>Hrudya, ruchya</i> (promotes taste)
<i>Manda</i> (Supernatant rice water)	<i>Vatanulomana</i> (facilitating normal movement of vata)

Dinacharya vidhi and Hrudya karma : Table no.4

<i>Dhumapana</i> ¹² (medicated smoke)	<i>Hrit, kanta, indriya shuddhi</i> (clearance of heart, throat and senses)
<i>Ratna abharana dharana</i> ¹³ (wearing of gem stones and ornaments)	<i>Ojasyam</i> (nourishes <i>ojas</i>)
<i>Snaana</i> ¹⁴ (bath)	<i>Ojaskara</i> (improves <i>ojas</i>)
<i>Danta dhavana</i> ¹⁵ (brushing of teeth)	Contraindicated in <i>hrudroga</i>

DISCUSSION

There has been substantial progress in recent years in the understanding of cardiovascular Pathophysiology and the application of these advances to clinical cardiology. In addition, medical technology continues to advance at a relentless pace and has provided a host of new therapeutic techniques that has reached up to the brink of heart transplantation. In spite of all these there is increased death globally due to CVD's. Modern medicine now understands CVD's to be mainly caused by various risk factors that are vital to be addressed. *Ayurveda* that provides prime importance to prevention emphasises on *Prakriti* (individual traits), *Dinacharya* (daily regimes) *Ritucharya* (seasonal regimes) *Ratricharya* (Regimen followed at night) and *Hitaahara Sevana*.

The preventive care of Ayurveda deals with both primary and secondary level of preventions. The *Hitaahara*, following of proper *Dinacharya* and *Ritucharya* falls under primary level of prevention and the role of *Aushada* and *Ahaara* that are *Hrudya* along with *Pathya – Apathya* falls under secondary level of prevention. But again at some point everything merges are *Ayurveda* gives a holistic approach.

In A recent study of 300 subjects who underwent angiography diagnosed to be suffering from Coronary artery disease it is reported that majority of them(62.3%) belonged to *Vata-Kapha Prakriti*¹⁶. Understanding ones *Prakriti* and following the respective regimes will help in prevention of any disease including *Hrudroga*.

The risk factors for *Hrudroga*-The *Nidana's* mentioned in *Hrudroga* can be categorised into *Ahaaraja*, *Viharaja*, *Manasika*, *Chikitsa Apacharaja* (improper *Chikitsa*). Even the risk factors mentioned in contemporary science can be fitted into these headings. When looked into *Ahaaraja Nidana's* it is pointing towards *Rasadushti*. As the *Srotomula* of *Rasavaha Srotas* is *Hrudaya*, it eventually causes diseases of the *Hrudaya*. Acharya Charaka has mentioned *Gada Atichara* as one of the *Nidana* of *Hrudroga*. Acharya Chakrapani has commented on *Gadaatichara* as – “*Rogaanam Asamyak Upachara*”, that means improper treatment to a *Vyadhi*. It also denotes the importance that should be given for *Chikitsa* of any *Vyadhi*. An Ayurvedic physician should be cautious before advocating medicines as improper medications can also lead to *Dushti* of *Hrudaya*. *Vegadharana* is another important concept that is neglected by today's world. Majority of the *Vegadharana* leads to one or the other condition with respect to *Hrudaya*. This is because *Vegadharana* directly leads to *Udavarta* and *Udavarta* is a prime cause for *hridroga*¹⁷. Thus avoiding the *Nidana's* mentioned in *Hrudroga* and voiding natural urges without intentional suppression for longer period may overcome the major risk factors.

Preventive and curative factors- the concept of *Hrudya* is something unique found in Ayurveda. It is said to be *Hita*(wholesome) to the *Hrudaya*. There are various *Aahara dravyas* that are mentioned to be *Hrudya* and which can be added to the daily diet. The drugs mentioned under *Hrudya Mahakashaya Gana*¹⁸ is another important asset which can be used both as a preventive as well as a curative therapeutics. It is also important to treat the *Khavaigunya* in a person who has had a *Hrudroga* so as to prevent the recurrence, for which *Hrudya Aushadi*, *Pathya- Apathya* and *Rasayana Prayoga* are helpful. It is not just the mentioning of *Aahara* and *Aushadi*, but certain regimes like *Snana* and *Ratna Abharana Dharana* are also claimed to be *Ojaskara*. As the *Sthaana* of *Ojas* is *Hrudaya*, it can be perceived that anything that is *Ojasya* is also beneficial to the *Hrudaya*. Taking *Rutushodhana* as prescribed in the *Shastras* are also to be considered an important factor in preventive cardiology. Thus Ayurveda deals with a comprehensive outlook on the care of *Hrudaya*. There are modifiable and non-modifiable risk factors of CVD, Here attempt is made to avoid modifiable risk factors so as to prevent CVD. Dietary changes are must to prevent CVD's as high cholesterol levels in blood is a causative factor for Coronary Artery diseases. Foods which are listed are considered as Cardiac tonics which nourishes the heart, strengthen it and prevents high cholesterol levels in blood.

CONCLUSION:

Despite spectacular advancements in the knowledge, technology and devices the morbidity and mortality in CVD's remain high, moreover after angioplasty and even coronary bypass surgery the chances of recurrence remain high, because these are only masking the symptoms and not the root cause. Rather they leave the *Kha Vaigunya* (defect in the *Srotas*) in place. This is where Ayurveda has a lot to offer in the field of cardiology. All the food and regimes that are suitable to the *Prakriti* (individual traits) especially the use of *Hrudya ahara* provides the preventive care. An integrated approach with emergency management of contemporary science according to the condition of the *Vyadhi* can provide solution to avoid the recurrence. The Ayurveda principles of health care like *Dinacharya*, which includes regular exercise, bathing, praying, meditation and wholesome diet, *Ritu charya*, the seasonal purification and *Sadvritta* which includes personality development and mental health care help in this primordial prevention level for prevention of CHD.

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