



A REVIEW ON THE ROLE OF DADIMA (PUNICA GRANATUM.LINN) IN HRIDROGA CHIKITSA

Radhika rani V¹, Gopikrishna S²

¹P G Scholar, Department of Roga Nidana Evam Vikrti Vijnana, SDM College of Ayurveda and Hospital, BM Road, Thanniruhalla, Hassan, Karnataka, India

²Professor, Department of Roga Nidana Evam Vikrti Vijnana, SDM College of Ayurveda and Hospital, BM Road, Thanniruhalla, Hassan, Karnataka, India

Corresponding Author: rr180031@gmail.com

<https://doi.org/10.46607/iamj4510072022>

(Published Online: July 2022)

Open Access

© International Ayurvedic Medical Journal, India 2022

Article Received: 24/06/2022 - Peer Reviewed: 04/07/2022 - Accepted for Publication: 13/07/2022



ABSTRACT

Cardiovascular disorders remain the leading cause of morbidity and mortality Globally. The annual number of deaths from CVD in India is 4.7 million as per recent reports. According to Ayurveda, *Hridaya* is an organ located in the *uras*. As *hridaya* is one among the *Trimarmas*, and also a *Sadyapranahara marma*, the diseases affecting it, if mismanaged leads to serious complications or even death. Ayurveda emphasises Prevention first and then cure. *Hridya Dasaimani* includes a group of drugs that improves the action of the heart. *Dadima* (*Punica Granatum* Linn.) is one of the *hridya dravyas*. It possesses *Madhura* and *amla rasa* and increases the tonicity of cardiac muscles. Studies revealed that *Dadima* possesses antioxidant, anti-inflammatory, and anti-hypertensive properties that help in reducing the risk of CVD. *Dadima* is classically mentioned in preventive as well as curative aspects of *hridroga*. This is a review of the role of *Dadima* in the management of *hridroga*.

Keywords: Cardiovascular disorders, *Hridaya*, *Hridroga*, *Hridya*, *Dadima*

INTRODUCTION

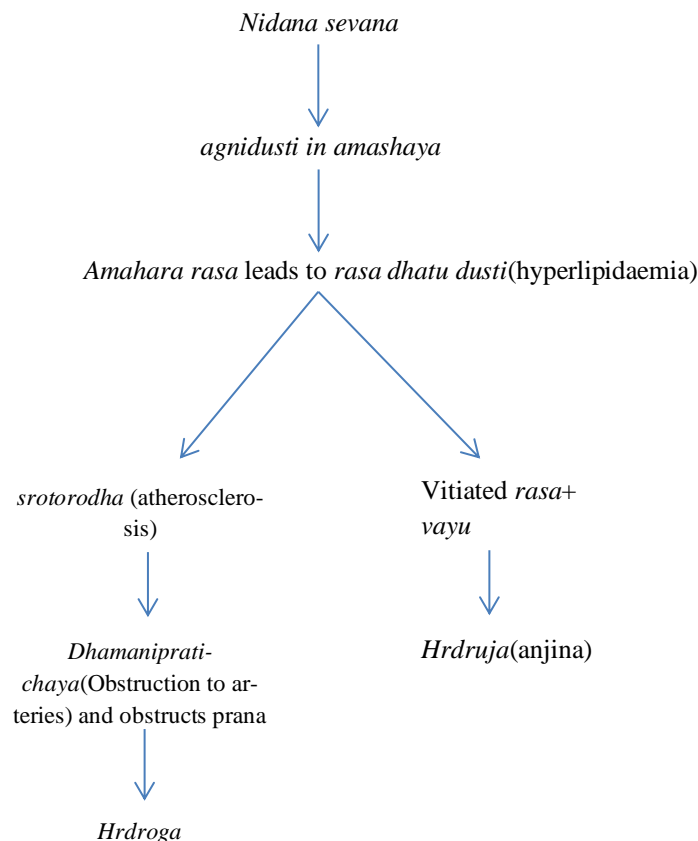
According to *Susrutha*, *Hridaya* (Heart) is the first organ to start its function during intrauterine life and the last to stop at death. *Hridaya* is derived from the purest essence of *raktha* and *kapha*¹. The functional aspects of *Hridaya* are described as *hr*-Circulating *rasa* and *rakta* throughout the body, *a*-providing nourishment to various *dhatu*s, *ya*-to performs *sankocha* and *Vikasa* to maintain continuous circulation. It transports nutrition and vital energy to different parts of the body as it is the site of *rasa vaha*, *ojavaha*, and *pranavaha srotases*. The conscious state of the body, sensory and motor functions, voluntary and involuntary activities of organs of the body are all dependent on the proper functioning of the heart². The special conduction system in the heart is maintained by the

specialized myocardial fibres which help the heart to pump continuously³. Any derangement in its functioning leads to serious illness. *Hridroga* is defined as the disease concerned with *Hridaya*. *HRIDO ROGO HRIDROGAM*⁴. The drugs used for managing *hridroga* are *Hridya*, *balya*, and *rasayana* i.e, agreeable and tonic to heart, stamina giving and alternative, having a long-lasting corrective and regenerative effect on damaged tissues. *HRIDAYAM TARPAYATI ITI HRIDYO BHAVATHI*⁵. The *hridya* drugs mentioned in *hridya Dasaimani* possess various properties that are conducive to the *heart*. *Dadima*(*Punica granatum* Linn) is one among those *hridya dravyas* that helps *hridaya* in proper function and whose regular use can prevent cardiac tissue damage to an extent.

HRIDROGA-AN OVERVIEW

Ayurveda explains the *nidana*, *samprapti*, *types*, *lakshanas* and treatment of *hridroga*. The *Aharaja nidanas* of *hridroga* includes *Atiushna*, *guru*, *kasaya* and *tikta bhojana*. *Srama*, *abhighata*, *Adhyasana*, *prasanga* and *vegadharana* are the *viharaja nidanas*. *Manasika nidanas* includes *chinta* and *bhaya*⁶.

SAMPRAPTI



Excessive exposure to *nidanas* leads to *agni dusti* in *amashaya*. This leads to *ama* formation and does the *rasa dhatu Dusti*. It will lead to the *srothorodha* and *dhamani Prathicchaya* that can result in *hridroga*. When *dushitha rasa* combines with *vitiating Vayu*, it produces *Hridruja*. On the basis of the above probable *samanya samprapti*, all the different types of *hridroga* are manifested. The five types of *hridroga* are *vataja*, *pittaja*, *kaphaja*, *sannipataja* and *krimija*. *Hritshoola* is separately explained by *Acharya susruta*⁷.

CONCEPT OF HRIDYA IN AYURVEDA

Chakrapani commentary explained *Hridayaaya hitam hridayam*⁸; whereas *Gangadhara* and *Yogendranath* quoted *hridaya manaso hitam*. *Hrdya* properties have a wide spectrum of applications in *Ayurveda*. Some of the properties of *hridya* drugs can be explained as *Hridayottejaka* or *hritprasadaka*, some

drugs can act on *hridaya peshi* (cardiac muscles) and some can on *hrdayagata nadi* (coronary artery or bundle)⁹. As *Dadima* (*Punica Granatum* . Linn) possessing *amla* and *madhura rasa*, it can contribute to the preventive as well as the curative aspect of *hdroga* by increasing the tonicity of cardiac muscles.

DADIMA AS HRIDYA DRAVYA

Dadima guna: *Acharyas* have mentioned two varieties of *dadima* on the basis of *vipaka*. The *rasapanchaka* of *Dadima* is mentioned in the table.

<i>Rasa panchaka</i>	<i>Madhura dadima</i>	<i>Amla dadima</i>
<i>Rasa</i>	<i>Madhura, amla, kashaya</i>	<i>Amla</i>
<i>Guna</i>	<i>Laghu, snigdha</i>	<i>Laghu, ruksha</i>
<i>Veerya</i>	<i>Anushna</i>	<i>Ushna</i>
<i>Vipaka</i>	<i>Madhura</i>	<i>Amla</i>
<i>Karma</i>	<i>Tarpana, hrdaya ,balya</i>	<i>Ruchya, deepana</i>

Madhura dadima is *tridoshaghna*. *Rookshamla dadima* is *pittavatakara* and *snigdhamla dadima* is *kaphavata hara* in nature¹⁰.

HRIDYA ACTION OF DADIMA

Heart functioning is a complex phenomenon. The five types of *vayu* are involved in the normal functioning of *hridaya*¹¹. *Prana* is responsible for the dilatation and relaxation of the chambers and valves of the heart. *Udana* is responsible for *visarga* (contraction). *Vyana vayu* is helping for the circulation of the *rasa dhatu*. *Samana vata* indirectly influences the functioning of the heart by the proper functioning of *agni* and the processing of *rasadhātu*. Even the influence of *sadhaka pitta*, *pachaka pitta*, and *avalambaka kapha* are vital in the maintenance of proper heart functioning.

Preventive: *Madhura dadima* does the *tarpana* to the cardiac muscle tissue and does the *hrdayottejana* or *hrtprasadana*.

Curative: *Amla rasa dadima* is helpful in the curative aspect of *hdroga* by performing the *samprapti*

vighatana. As *amla rasa* is composed of *agni* and *prithvi mahabhuta*, it does the *jataragni* and *rasadhatwagni deepana* and *vatanulomana*. On account of the *vatanulomana* property, it brings *samana vata* to its normalcy, and thereby the functioning of *agni* is properly stimulated. Due to the normal functioning of *agni*, the *ahara rasa* is properly formed. As a result, *rasa dhatu* will be of improved quality. Thus, the *dadima* acts at the level of *rasa dhatu* by enriching the nutritional value of *rasa*. The *raktha kshaya* can also lead to *vata* vitiation that can lead to the improper functioning of *udana* and *prana vata* and can affect the *hridaya*. This kind of *vataprakopa* due to *rakta kshaya* can also be prevented by the *Dadima* as it is a haemopoietic drug. In *hridroga samprapti*, it is evident that there will be the production of *ama* which leads to *rasa dhatu dusti* and *dosha dusti* which results in *srothorodha*, mainly in *Rasavaha srotas*. This can further lead to a reduced supply of nour-

ishment and also *vataprakopa*. Here, the *vatanulomana* property of *amla rasa*, *Dadima* brings *vata* in the normal direction, and also it also does the *sroto vishodhana* which helps to prevent the progression of *samprapti*. *Agneya guna* of *amla rasa* also helps in *Agnideepana* and *Amapachana*. Thus, *Dadima* proves to be a *hridya* drug with the properties like *tarpana*, *balya*, *deepana*, *pachana*, and *vatanulomana*.

Contemporary understanding of hridya action of Dadima(*punica granatum* Linn)

Cardiovascular health is maintained by *dadima* (*punica granatum* Linn) can be substantiated by the proven properties of *Dadima*. The antioxidant, anti-inflammatory, anti-stress, antihypertensive, and thrombolytic potential helps in the preventive and curative aspects of cardiovascular disorders¹².

Antioxidant –Oxidative stress is initiated by free radicals. These antioxidants are responsible for free radical scavenging. Studies have shown that *Punica granatum* rind is a more potent scavenger of superoxide radical. It can also prevent the oxidation of LDL, thereby reducing the risk of cardiovascular diseases.

Anti-inflammatory- A series of inflammatory and oxidative changes within the arterial wall results in the major degenerative disease of the artery called atherosclerosis. Studies have shown that the principal mechanism of action of pomegranate juice is increased serum antioxidant capacity, decreased plasma lipids and lipid peroxidation decreased atherosclerotic lesion areas enhanced by nitric oxide, decreased angiotensin-converting enzyme activity, and decreased systolic blood pressure, thereby reducing the risk of atherosclerosis and coronary heart disease.

Anti-stress-Vitamin C reduces cortisol secretion and reduces the effects of stress in the body like increased heart rate, blood pressure which increases the risk of heart attacks and stroke. It can also reduce oxidative damage thereby providing benefits for the body, including reduced stress and heart diseases.

Anti-hypertensive- Pomegranate juice has a proven ability to restore the antioxidant enzyme level which reduces the risk of oxidative stress. It also has inhibitory action against angiotensin II which is the key

regulator of blood pressure. **Thrombolytic potential**- The fruit *Punica granatum* has an effect on thrombolysis by providing good oxidative protection through the presence of a good number of antioxidants.

DISCUSSION

The main principle behind the *hridroga chikitsa* is to maintain the *rasa –raktha* circulation and thereby maintain the normal functioning of the *hridaya*. *Dadima*, by its *gunas*, it does the *samprapthi vighatana* of the *hridroga*. *Acharya charaka* has indicated *Dadima* in *hridroga*, ie, *Pushkarmuladi kalka* in *vatika hridroga*¹³ and *patadya churna* in *kaphaja hridroga*¹⁴. *Dadima* is included in many of the *yogas* which are indicated in *hridroga*. *Dadima* can be an ideal drug of choice in the management of *hridroga*.

REFERENCES

1. Sastri JLN AND Nishteswar K, Ayurvedic Management of heart Diseases,Chaukambha orientalia Varanasi ,2002; p 13
2. VC Leonard, Pahologic basis of disease,Jones and Bartlett Publishers 1999;p 315
3. Vijayarakshitha and srikanta datta,madhukosha Sanskrit commentary of madhavanidana by madhavakara,chaukhambha Sanskrit sansthan,Varanasi 2012 ;p 194
4. Sastri JLN AND Nishteswar K, Ayurvedic Management of heart Diseases,Chaukambha orientalia varanasi,2002; p 81
5. Agnivesha, ‘Charaka Samhita ‘, revised by Charaka and Dridhbala with Ayurveda Dipika’commentary, by Chakrapanidatta, edited by Laxmidhar divedi, , Chaukhamba Krishnadas Academy, Varanasi: Reprint – 2012, chikitsa sthana chapter 26.
- 7.Kaviraj Ambika Dutt Shastri. Ayurvedtatva sandipika Hindi Commentary, Sushuruta Samhita- 1, Chaukhambha Sanskrit Sansthan, Varanasi. Reprint year 2011; page 73.
- 8.Yadavaji Trikamaji Aacharya Editor, Charaka samhitha-2, Chaukhambha Surbharati Prakashana, Varanasi. 2013; suthrasthana chapter 2
- 9.Sastri JLN AND Nishteswar K, Ayurvedic Management of heart Diseases,Chaukambha orientalia varanasi,2002; p 83

10. Hegde PL, Harini A. A Textbook of Dravyaguna Vijnana. 1st ed. Delhi: Chaukhambha Publications; 2014. Vol II.p.467
11. AT Pansare et al, A critical review on hrdaya action of dadima with special reference to ayurvedic and modern aspect,IJAPR,December 2017,Vol 5,Issue 12,p.26
12. AT Pansare et al, A critical review on hrdaya action of dadima with special reference to ayurvedic and modern aspect,IJAPR,December 2017,Vol 5,Issue 12,p.30
13. Agnivesha, 'Charaka Samhita ', revised by Charaka and Dridhbala with Ayurveda Dipika'commentary, by Chakrapanidatta, edited by Laxmidhar divedi, , Chaukhamba Krishnadas Academy, Varanasi: Reprint – 2012, chikitsa sthana chapter 26.
14. Agnivesha, 'Charaka Samhita ', revised by Charaka

and Dridhbala with Ayurveda Dipika'commentary, by Chakrapanidatta, edited by Laxmidhar divedi, , Chaukhamba Krishnadas Academy, Varanasi: Reprint – 2012, chikitsa sthana chapter 26.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Radhika rani V & Gopikrishna.S: A review on the role of Dadima (punica granatum.linn) in Hridroga chikitsa . International Ayurvedic Medical Journal {online} 2022 {cited July 2022} Available from: http://www.iamj.in/posts/images/upload/1903_1907.pdf