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A Literary Study on *Aharadravya* having *Hridya* Property in Relation to *Brihat Trayee*

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ABSTRACT

Background: *Hridya* is termed as anything (includes foods, lifestyle and drugs) which is beneficial to heart or having cardio-tonic activity. *Brihat trayee* have mentioned various food substances which possess cardio tonic activity in their respective *Samhitas* under various headings of *Aharavargas*. These can be used in day-to-day practice as well as in clinical practice for maintaining the cardiac health thereby preventing and curing the diseases related to heart. Critical analysis of these *Ahara dravyas* is the need of an hour in clinical practice.

Aims and Objectives: To identify the *Ahara dravyas* that are *Hridya* as mentioned in *Brihat trayee* and assess their common properties.

Methodology: An effort was made to collect data from *Brihat trayee*. The collected data from each *Samhita* was presented in tabular form with the details of *dravya* - name, *varga*, properties.

Observation: After thorough screening of the three *Samhitas*, it is found that *Acharya Charaka*, *Sushruta* and *Vagbhata* have mentioned 20, 43 and 25 *Hridya dravyas* respectively. These *dravyas* are mostly found to have sweet and sour taste, possessing qualities like lightness (*Laghu*), unctuousness (*Snigdha*) and coldness (*Sheeta*) and are acting as cardio tonic and cardio protective.

Conclusion: Fruits such as *Dadima*, *Lavali* and *Narikela* and *Mamsarasa*, *Raga* and *Shadava* are common in all the three texts. Current researches have proven the cardio tonic property of pomegranate juice and tender coconut water. Thus, analysis and application of these *Ahara dravyas* in present era have been discussed in the full paper.

Key Words Cardio-tonic, *Dadima*, *Amla rasa*, *Madhura rasa*, *Hridya mahakashaya*

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INTRODUCTION

Due to sedentary lifestyle, act of taking unwholesome food and regimens, stress, etc life style disorders are becoming a big burden in present era. One among which is cardiovascular diseases with death rate of 272 per 100000

population in India¹. According to WHO, cardiovascular disease contributed to 28.1% of total deaths and 14.1% of total Disability-Adjusted Life Years (DALYs) in India in 2016². In INTERHEART study, nine common risk factors have been mentioned which include

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physical inactivity, low fruits and vegetables intake, psycho-social stress, etc for more than 90% of acute myocardial infarction in South Asians³. This highlights the importance of consuming appropriate food to maintain health and prevent such heart related disease.

Ayurveda, the science of life has mentioned various foods and dietary habits for the promotion of cardiac health and curing of various cardiac related disease in the form of *Ahara dravyas*. The term *Hridya*, refers to the things or materials which are beneficial and conducive to heart⁴. These include foods, regimens and drugs. The description of *Ahara dravyas* which are *Hridya* in activity is available in the *Brihat trayee* - *Charaka Samhita*⁵, *Sushruta Samhita*⁶ and *Astanga Samgraha*^{7,8} in the form of various *Vargas*.

This paper aims to identify the *Ahara dravyas* that are *Hridya* as mentioned in *Brihat trayee* and to analyze the common properties of *Hridya dravyas*. The collation of *Hridya dravyas* will throw light on the common food products that will maintain the functioning of heart, thus reducing the risk of cardiovascular diseases.

MATERIALS AND METHODS

An effort was made to collect data on *Ahara dravyas* acting as *Hridya* through various *Ayurvedic* classical texts including *Charaka Samhita* with *Chakrapani* commentary, *Sushruta Samhita* with commentary by *Dalhana* and *Gayadasa*, *Astanga Sangraha* of *Vagbhata* along

with available translation and published articles in peer-reviewed journals and database-pubmed, internet sources.

The collected data from each *Samhita* was presented in tabular form with the details of *dravya* - name, *varga*, properties. Based on these observations were made. In each *varga* the properties of *dravya* are scanned and those possessing *Hridya* property are enlisted. Then the other properties of that *dravya* are compared to identify the common properties of a *dravya* with *Hridya guna* which they possess. Finally, a summarized table mentioning the total number of *Hridya dravyas* from each *Samhita* is highlighted.

LITERARY REVIEW

The science of *Ayurveda* which aims to maintain health of healthy and prevent and cure diseases mentioned three pillars of life as *Ahara* (Food), *Swapna* (Sleep) and *Brahmacharya* (Celibacy)⁹. This highlights the importance given to food to maintain health and prevent diseases. Here an attempt has been made to analyze the food products that are exhibiting cardio tonic activity so as to reduce the prevalence of cardio vascular diseases in present era. In *Ayurveda*, this activity is termed as *Hridya*.

The word *Hridya* means '*hridayasyapriyamiti*' (*Shabdakalpadruma*),⁴ '*hridayasya priyam Hridyam*' (*Kaiyadeva Nighantu*)¹⁰, '*hridayayah hitam Hridyam*' (*Dalhana*)¹¹ and '*hridaya hitam hridyam*' (*Acharya Charaka*)¹² which all means that which is beneficial or conducive to heart.

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Acharya Charaka has mentioned the *Hridya dravya* in 27th chapter named *Annapanavidhi*, of *Sutrasthana*,⁵ Acharya Sushruta in 46th chapter named *Annapanavidhi*, of *Sutrasthana*⁶ and Acharya Vagbhata in *Astanga Sangraha* (6th and 7th chapter named *Dravadravyavignaniya*⁷ and

*Annaswarupavignaniya*⁸ of *Sutrasthana*) respectively. Acharya Charaka has mentioned twelve *Aharavarga* which has been analyzed for *Hridya* activity and summarized in the Table No. 1.

Table 1 Ahara Dravya having *Hridya* properties

SN.	AharaDravya	Varga	Guna and karma
1	Fruit of <i>lavali</i>	<i>Phala</i>	<i>Kashaya, Visada, Saugandhya, Ruchipradam, Hridyam</i>
2	Fruit of <i>Dadima</i>	<i>Phala</i>	<i>Amla, Kashaya, Madhura, Usna, Snigdha, Vataghna, Dipanam, Hridyam</i>
3	<i>Karchura</i> - without skin	<i>Phala</i>	<i>Rochana, Dipana, Sugandhi, Hridyam, Kaphavataghna, Good for swasa, Hiccogh, Arsha</i>
4	<i>Nagaranga</i>	<i>Phala</i>	<i>Madhura, Kinchitamla, Hridyam, Bhaktaprarochanam, Vatasamana</i>
5	<i>Yavani, Arjaka, Shigru, Saleya and Mristaka</i>	<i>Harita</i>	<i>Hridyam, Swadaniya,</i>
6	<i>Sharkara</i>	<i>Madya</i>	<i>Mukhapriya, Sukhamada, Sugandhi, Hridyam, Varnya</i>
7	<i>Pakwarasa</i>	<i>Madya</i>	<i>Rochana, Dipana, Hridyam, Snigdha, Varnya, Good for Sosha, Shopha, Arsha</i>
8	<i>Dhatakyasava</i>	<i>Madya</i>	<i>Ruksha, Rochana, Dipana, Hridyam</i>
9	<i>Madhwaasava</i>	<i>Madya</i>	<i>Rochana, Dipana, Hridyam, Balya, Laghu, Kaphaghna, Vibandhaghna</i>
10	<i>Sauviraka, Tushodaka</i>	<i>Madya</i>	<i>Dipana, Good for Hridroga, Pandu, Krimi, Arsha, Grahani</i>
11	<i>Navanita (Fresh)</i>	<i>Kshira</i>	<i>Dipana, Hridyam, Good for Arsha, Grahani, Aruchi</i>
12	<i>Vilepi</i>	<i>Krutanna</i>	<i>Laghu, Tarpana, Hridyam</i>
13	<i>Odana with mamsa, saka, vasa, taila, ghrita, majja, phala</i>	<i>Krutanna</i>	<i>Balya, Santarpana, Hridyam, Brimhana</i>
14	<i>Godhuma with sneha</i>	<i>Krutanna</i>	<i>Tarpana, Hridyam, Vrishya</i>
15	<i>Vimardaka</i>	<i>Krutanna</i>	<i>Hridyam, Vrishya</i>
16	<i>Lassi (Dadhi with guda)</i>	<i>krutanna</i>	<i>Sneha, Tarpana, Hridyam, Vataghna</i>
17	<i>Raga, Sadava</i>	<i>Panaka Preparations</i>	<i>Katu, Amla, Madhura, Lavana, Laghu, Dipana, Mukhapriya, Hridyam, Bhaktarochana</i>
18	<i>Viswabhesajam (Dry ginger)</i>	<i>Condiments, Spices</i>	<i>Sneha, Dipana, Usna, Madhuravipaka, Vrishya, Hridyam, Rochana, Vatakaphapaham</i>
19	<i>Souvarchala</i>	<i>Lavana (Salt)</i>	<i>Sukshma, Usna, Laghu, Saugandhi, Ruchipradam, Hridyam, Vibandhaghna, Udgarasodhi</i>
20	<i>Mamsarasa</i>		<i>Prinanamsarvabhutanam, Balya, Hridyam, Sarvarogaprasamana, Buddhi-Indriyavriddhikara, Vayavriddhikara, Good for oligospermia</i>

In the same way Acharya Sushruta has also mentioned twelve *annavarga* which has been analyzed for *Hridya* activity and summarized in the Table No. 2.

Similarly, Acharya Vagbhata has mentioned thirteen *Aharavarga* which has been analyzed for *Hridya* activity and summarized in the Table No. 3.

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Table 2 Ahara Dravya having Hridya properties

SN	Aharadravya	Varga	Guna and Karma
1	Lohita	Shali	Tridoshagna, Chakshushya, Hridya , Varnabalakrut
2	Meat of strong legged animals	Mamsa	Kashaya, Madhura, Hridya , Vatapittahara
3	Meat of black deer	Mamsa	Kashaya, Madhura, Hridya , Rochana, Balya
4	Meat of Krakara	Mamsa	Vatapittahara, Vrishya, Hridya , Laghu
5	Dadima	Phala	Kashaya anurasa, Ruchikara, Dipaniya, Hridya
6	Matulunga	Phala	Laghu, Dipaniya, Amla, Hridya
7	Pakwa Amra	Phala	Varnakara, Hridya, Swadu, Hridya , Ruchya
8	Bhavya	Phala	Swadu, Kashaya, Amla, Hridya
9	Naranga	Phala	Amla, Samadhura, Hridya , Vataghna, Bhaktarochana
10	Narikela	Phala	Snigdha, Swadu, Sheetala, Hridya , Balamamsaprada
11	Kashmarya	Phala	Hridya , Keshya, Rasayana, Medhya
12	Kharjura	Phala	Sheetala, Tarpana, Hridya , Madhura rasa and Vipaka
13	Lavali	Phala	Kashaya, Kaphapittaghna, Hridya , Rochana
14	Kusmanda(white one)	Saka	Laghu, Usna, Dipana, Hridya , Pathya, Sarvadoshahara
15	Sirnavrunta	Saka	Madhura, Dipana, Hridya , Laghu, Kaphapaha
16	Nagara (Dry Ginger)	Saka	Katu, Madhura Vipaka, Hridya , Laghu, Dipana, Rochana
17	Adraka (Wet Ginger)	Saka	Kaphavatahara, Hridya , Rochana, Vrishya, Usna
18	Dhanyaka (fresh)	Saka	Ruchya, Hridya , Swadu, Saugandhya
19	Mulaka (Tender)	Saka	Tikta, Katu, Rochana, Hridya , Sarvadoshahara
20	Vegetables of Bitter Taste	Saka	Laghu, Raktapittahara, Hridya , Rochana
21	Bakula Pushpa	Pushpa Saka	Sugandhi, Hridya , Visada
22	Shatavari	Kanda	Sheeta, Hridya , Rasayani, Agnibalavardhini
23	Saindhava	Lavana	Ruchya, Laghu, Madhura, Sheeta, Hridya
24	Sauvarchala	Lavana	Laghu, Rochana, Surabhi, Hridya , Visada
25	Suvarna	Lavana	Swadu, Hridya , Rasayana, Sheeta, Brimhaniya
26	Lajamanda	Krutanna	Pathya, Hridya , Dipana, Vataanulomana
27	Vilepi	Krutanna	Tarpana, Hridya , Pathya, Laghu, Swadu, Dipaniya
28	Vilepi (Mixed with meat,fruit, vegetable)	Krutanna	Swadu rasa, Santarpaniya, Hridya , Vrisya
29	Meat cooked with ghrta	Krutanna	Laghu, Dipana, Hridya , Ruchya, Manogy
30	Mamsa rasa	Krutanna	Prirana, Hridya , Vatapittahara
31	Soup of Green gram (kruta and akruta)	Krutanna	Kaphagna, Hridya , Dipana
32	Soup of Green gram with grapes and pomegranate	Krutanna	Rochana, Dipana, Hridya , Laghupaki
33	Soup of Patola and Nimba	Krutanna	KaphamedaVishoshana, Hridya , Dipana, Pitthagana
34	Soup of Pomegranate and Amlaka	Krutanna	Laghu, Hridya , Prana agnijanana

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35	Khada and Kambalika	Krutanna	Hridya , Vatakaphahara
36	Raga and Shadava	Krutanna	Laghu, Brimhana, Hridya , Rochana, Dipana
37	Curd with Guda	Krutanna	Snehana, Hridya , Anilapaha
38	Syrup of Parushaka and Kola	Krutanna	Hridya , Vistambhi
39	Edibles made from milk	Bhakshya	Balya, Pushtikara, Hridya , Dipana, Sugandhi
40	Ghritapura	Bhakshya	Pranakara, Hridya , Vatapittahara
41	Visyanda	Bhakshya	Madhura, Snigdha, Hridya , Balya, Triptikara
42	Phenaka	Bhakshya	Brimhana, Hridya , Laghu, Balya
43	Edibles cooked in ghrita	Bhakshya	Laghu, Hridya , Sugandhi, Balya, Vatapittahara

Table 3 Ahara Dravya having Hridya properties

S N	Aharadravya	Varga	Guna and Karma
1	Rain water (fresh)	Toya	Jivana, Tarpana, Hridya , Sheeta, Shuchi,
2	Purana Guda	Ikshu	Pathya, Hridya
3	Varuni	madya	Laghu, Hridya , Tikshana
4	Madvika	madya	Madhura, Sara, Natusna, Hridya
5	Sura prepared with sarkara	madya	Surabhi, swadu, Laghu, Hridya
6	Maireya	madya	Madhura, Hridya , Sara
7	All types of Asava	madya	Hridya , Vatala
8	Sukta	madya	Sara, Dipana, Hridya , Ruchikara
9	Mamsa rasa	Krutanna	Pathya, Brihana, Vrishya, Hridya
10	Khala and Kambalika	Krutanna	Hridya
11	Raga and Shadava	Krutanna	Ruchikara, Vrishya, Hridya , Prinana
12	Panaka	Krutanna	Prinana, Mutrala, Hridya
13	Flour mixed with fruits like Karkandhu, Badara, etc	Krutanna	Amla, Hridya
14	Meat of Harina, Yena	Mamsa	Laghu, Sadrasa, tridoshajit, Hridya
15	Meat of Krakara and Upachakra Mamsa	Mamsa	Hridya
16	Patola	Saka	Swadupaka, Ruchya, Hridya , Kriminut
17	Karira	Saka	Ruchikara, Kashaya, Swadu, Tikta, Hridya
18	Sirnavrunta	Saka	Kaphavatajit, Rochana, Dipana, Hridya ,
19	Haritaka (leafy vegetables)	Saka	Dipana, Hridya , Rochana
20	Rasona (bulb)	Saka	Usna, Sara, Hridya , Rochana, Dipana
21	Dadima	Phala	Hridya , Laghu, Rochana, Dipana
22	Narikela	Phala	Swadu, Sheeta, Hridya , Brimhana, Pittaghna
23	Amra (ripen)	Phala	Hridya , Swadu, Amla, Snigdha
24	Sahakara rasa (Mango juice with Honey, sugar, ela, etc	Phala	Hridya , Surabhi, Rochana, Dipana, Snigdha
25	Lavali	Phala	Kashaya, Rochana, Hridya , Vatala

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Table 4 Hridya dravyas mentioned by Three Acharyas

SN	Varga	Charaka	Sushruta	Vagbhata
1	Phala (Fruit)	4	9	5
2	Madya (Liquor)	5	-	6
3	Krutanna (prepared foods)	7	13	5
4	Saka (Vegetables)	1	8	5
5	Mamsa (Meat)	1	3	2
6	Kshira (Milk)	1	-	-
7	Lavana (Salt)	1	3	-
8	Bhakshya (Hard Edibles)	-	5	-
9	Toya (Water)	-	-	1
10	Ikshu (Sugarcane)	-	-	1
11	Shali (Rice)	-	1	-
12	Kanda (Tuber)	-	1	-
	Total	20	43	25

In the same way *Acharya Charaka* has mentioned *Hridya mahakashaya* which includes ten drugs: *Amra*, *Amrataka*, *Likucha*, *Karamarda*, *Vrikshamla*, *Amlavetas*, *Kuvala*, *Badara*, *Dadima* and *Matulunga*¹². They can be used as both food products and medicinal drugs. Among these *Amra*, *Dadima*, *Badara* are commonly available. All these are dominant with *Amla rasa*, in turn rich in Vitamin C and thus can be utilized as cardiogenic¹³.

RESULTS AND DISCUSSION

After thorough screening of *Brihat trayee* and from the above literary analysis we can infer the importance of consuming proper food products that exhibit cardio tonic activity in turn maintaining cardiac health. *Acharya Charaka*, *Acharya Sushruta* and *Acharya Vagbhata* has mentioned totally 20, 43 and 25 *dravyas* that are

having *Hridya* activity respectively which are shown in Table No. 4.

Fruits such as *Dadima*, *Lavali* and *Narikela*, *Mamsarasa*, *Raga* and *Shadava* are common in all the three texts. Current researches have also proven the cardio tonic property of pomegranate juice and tender coconut water. *Dadima* is believed to be potential source of Vitamin C and natural phenolics that has been associated with cardio protective property. Phyto-chemical analysis indicates the presence of alkaloids, flavonoids, cardiac glycosides, tannins etc. Flavonoids possess anti-atherosclerotic action. Other actions include anti-hypertensive and antioxidant¹³. Further noticed that the *Hridya dravyas* mentioned by all the three *Acharyas* are having sweet and sour taste, are light, cold and fragrant in nature and are having *Dipana* (digestive), *rochana* (agreeable), *Brimhana* (nourishing) and satisfying property. *Acharya Charaka* has quoted '*Amlam Hridyanam*'¹⁴ which

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means *amla rasa* (sour taste) *dravya* act as cardio tonic and has mentioned the property of *amla rasa* as 'hridayam tarpayati' (nourishes the heart)¹⁴, pleasing to mind and strengthening the sense organs¹⁵. In modern pharmaceuticals sour fruits are rich in Vitamin C, which is proved to be antioxidant, found to increase HDL, decrease LDL and maintain cardiac structure and functions¹³. *Acharya Chakradutta* has quoted *madhura rasa* (sweet taste) as *Hridya* too¹⁶. Function of *madhura rasa* are nourishment of all the five sense organs including mind and possess *snigdha* and *sheeta* qualities¹⁷, which in turn acts as cardio protective.

Aharavarga explained by our *Acharyas* are easily available now and can be prepared at home and can be useful for daily basis and even for medicinal preparations. These can be advised to patient in clinical practice as well as to common to include in their regular diet. This also strengthens importance of prescribing *Pathya* (wholesome) food in clinical practice. The cardio tonic activity of fruits like *Lavali*, *Naranga* (orange), *Matulunga* (citron), Meat soup, *Raga* and *sadava* can be explored. Pilot and Observational study can be done to establish the cardio tonic activity of *dravya* which has been already proved. Such literary compilations on other important activities of *Aharadravya* can be undertaken by *Ayurvedic* scholars and can be adopt as a model for teaching to strengthen the evidence-based practice.

CONCLUSION

Brihat trayee have mentioned various food articles which possess cardio-tonic activity in their respective *Samhitas* under the heading of various *Aharavargas*. After thorough screening, we can conclude that *Acharya Charaka*, *Acharya Sushruta* and *Acharya Vagbhata* have mentioned totally 20, 43 and 25 *dravyas* that are having *Hridya* activity. Fruits such as *Dadima*, *Lavali* and *Narikela*, *Mamsarasa*, *Raga* and *Shadava* are common in all the three texts. Current researches have also proven the cardio tonic property of pomegranate juice and tender coconut water. After keen observation it can be analyzed that the *Hridya dravyas* mentioned by all the three *Acharyas* are mostly having sweet and sour taste, are light, cold and fragrant in nature and are having *Dipana* (digestive), *Rochana* (agreeable), *Brimhana* (nourishing) and satisfying property. This paper highlights the role of *Hridya Aharadravyas* which plays a vital role to prevent and cure cardiac disease. It also signifies role of *pathya* in clinical practice and scope of research on other *hridya dravyas* to elicit their property.

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