

Bhavaprakash nighantu - hridaya rogahara dravyas (Cardio-Protective Drugs)

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Abstract:

Cardiovascular disease is now a days the leading cause of death for men and women both in the developed and developing countries and is caused by disorders of the heart and blood vessels, and includes coronary heart disease (heart attacks), cerebrovascular disease (stroke), raised blood pressure (hypertension), peripheral artery disease, rheumatic heart disease, congenital heart disease and heart failure. The major causes of cardiovascular disease are tobacco use, physical inactivity, an unhealthy diet and harmful use of alcohol. *Cardiovascular disease is the leading cause of deaths worldwide. Any disease which affects the cardio-vascular system or which involve the heart, the blood vessels or both is called as cardiovascular disease. The factors like age, gender, high blood pressure, hyperlipidemia, diabetes mellitus, tobacco smoking, processed meat consumption, sugar consumption, obesity, psychosocial factors, lack of physical activity, air pollution etc lead to cardiovascular diseases.* Some

metabolic abnormalities are more prevalent among them, including high triglyceride concentration, increased total cholesterol and high-density lipoprotein ratio, type 2 diabetes. mellitus, and obesity. For men and women, cardiovascular risk is known to increase with age, smoking, hypertension, blood lipids and glucose levels, and obesity.

Keywords: Cardiovascular disease, obesity, *hyperlipidemia bhavprakasha nighantu*

INTRODUCTION;-

Cardiovascular disease is now a days the leading cause of death for men and women both in the developed and developing countries and is caused by disorders of the heart and blood vessels, and includes coronary heart disease (heart attacks), cerebrovascular disease (stroke), raised blood pressure (hypertension), peripheral artery disease, rheumatic heart disease, congenital heart disease and heart failure. The major causes of cardiovascular disease are tobacco use, physical inactivity, an unhealthy diet and

harmful use of alcohol. *Cardiovascular disease is the leading cause of deaths worldwide. Any disease which affects the cardiovascular system or which involve the heart, the blood vessels or both is called as cardiovascular disease. The factors like age, gender, high blood pressure, hyperlipidemia, diabetes mellitus, tobacco smoking, processed meat consumption, sugar consumption, obesity, psychosocial factors, lack of physical activity, air pollution etc lead to cardiovascular diseases.*

Some metabolic abnormalities are more prevalent among them, including high triglyceride concentration, increased total cholesterol and high-density lipoprotein ratio, type 2 diabetes mellitus, and obesity. For men and women, cardiovascular risk is known to increase with age, smoking, hypertension, blood lipids and glucose levels, and obesity.

Many treatment modalities have been explained in Brihatrayi (Charaka, Sushruta, Vagbhata) and Laghutrayi (Bhavaprakash and Madhav Nidan). Bhavamishra mentions numerous drugs acting on cardiac disorders in his book Bhavaprakash Nighantu. The present study is designed to screen the drugs with hrudya, hrudamaya hara, hrudaya shodhana, hrudaya nashaka, hrudruja hara, hrudpida hara and hrudroga hara properties. Out of 426 drugs 80 were described for the treatment of cardiovascular diseases throughout the text which includes herbal, mineral and animal origin drugs.

The current therapies to prevent or cure cardiovascular diseases are not without adverse effects. Hence safer, effective and economical drugs should be used from natural sources. In classical texts we find explanation of *Hrudya Dashemaani* by Acharya Charaka, *Parushakadi gana* by Acharya Sushruta and *Vidaryadi gana* by Acharya Vagbhata respectively which are proof to the fact of prevalence and treatment of *Hrudroga* (cardiac disorders) even in that period.

MATERIALS AND METHODS:

Bhavaprakash Nighantu is considered mainly on cardioprotective drugs. *Bhavaprakash Nighantu* mentions total 80

drugs which act as cardioprotective. *Bhavamishra* has given various drugs to treat this disease. *Bhavamishra* directly mentions the *karma* or action of these drugs as *Hrudya* (cardioprotective). There are herbal drugs as well as animal and mineral origin drugs which act as cardioprotective.

Drugs from *Bhavaprakash Nighantu* were screened for the action *Hrudya*. Obtained data is presented as per *Hrudya* action with respect to herbal, mineral and animal origin drugs which belong to different *vargas* (chapter wise classification) with corresponding reference.

DISCUSSION:

Acharya Charaka classified *Hrudroga* into five types viz. *vataja*, *pittaja*, *kaphaja*, *sannipataja* and *krimija* respectively. The same classification is found in *Ashtanga hrudaya*. *Acharya vagbhata* mentioned *lakshanas* of each type of *Hrudroga*. In *vatika hrudroga* patient, there will be acute pain in the heart area, the pain is like that of cutting or stretching. In *Paittika Hrudroga* patient, there will be thirst, burning sensation, sweating, dryness of mouth and fainting. In *Kaphaja Hrudroga* patient, there will be feeling of seizure in the heart, heaviness in the body, excessive secretion of phlegm, loss of appetite, sweet taste in the mouth. In *Sannipatika Hrudroga* patient, there will be mixed symptoms described in *Vatika*, *Paittika* and *Kaphaja* types of *Hrudroga*. In *Krimija Hrudroga* patient, there will be acute pain and itching in the heart area as main symptoms. In this study the drugs explained directly as cardioprotective by *Bhavamishra* is screened and documented and which can be more helpful for better treatment modalities and results.

Though cardiovascular system was not envisaged by Ayurveda in the way in which it is being described presently in modern medicine, it appears that the various references pertaining to cardiovascular activities indicate that ancient Ayurvedists had a similar concept. References to the actual act of

circulation are available in the *Samhitas*. The fluid that circulates in the body is spoken as *Rasa* because it is always going that is ever circulating. The *Rasa* circulates round the body, like a rotating wheel. Sushruta states that the nutrient fluid circulates throughout the body with variable velocity, like the speed of light, sound and water. Bhela states that the nutrient fluid comes into circulation from the heart spreads all over the body through *Siras*. The circulation described in Ayurvedic classics may be too sketchy as it does not describe portal circulation, renal circulation, etc. Alteration of the degree of circulation to the peripheral areas was described in Sushruta's description of blood not flowing out freely in *Siravyadha* (venesection). Charaka

mentions that if the places where pulsations of vessel generally seen, if suddenly become free from pulsations it indicates a very bad prognosis. *Dhamani Praticchaya* described under *Kaphaja Nanatmajavikara*, is similar to atherosclerosis. Hypertension, which is the most important condition contributes for cardiovascular or cerebrovascular disorders was not described in Ayurveda and can be interpreted with different conditions

like *Raktavata*, *Raktagatavata*, *Siravata*, *Kaphavrita Vyana* etc.

Ayurvedic treatise documented drugs employed in *Hridroga* (Heart disease). Charaka introduced ten drugs under *Hridya Mahakashaya* group that comprises mostly like ascorbic acid of citrus fruits in it. It is proven that certain phytoconstituents present in these herbs help to maintain a healthy state of blood vessels including coronary arteries. Heart diseases are categorized according to *Dosha* dominance and *Krimi*. It appears to be very difficult to incorporate all the cardiovascular conditions described by modern medical

science into these varieties. A critical analysis of the herbal knowledge utilized in the management of *Hridroga* (Heart disease) like *Arjuna* (*Terminalia arjuna* (Roxb.) Wight and Arn.), *Pushkarmoola* (*Inula racemosa* Hook. f.), *Bala* (*Sida cordifolia* Linn.), *Nagabala* (*Sidahumilis* Linn.), *Shunthi* (*Zingiberofficinale* Roscoe.), *Pippali* (*Piperongum* Linn.), *Yashtimadhu* (*Glycyrrhizaglabra* Linn.), *Haritaki* (*Terminalia chebula* Retz.) and *Dashmoola*, etc., clearly indicates that they are possessing hypotensive, hypocholesteremic, antiplatelet and thrombolytic activities which play a crucial role in the management of cardiovascular and cerebrovascular disorders.

Bhavaprakash Nighantu is considered to be most frequently referred nighantu of present era, in Ayurveda. Drugs, noted in this nighantu, have been proved to be most efficacious for various diseases like diabetes, obesity, skin problems. Hence in the present paper an attempt has been made to find out the contribution of Bhavaprakasha towards *Hridayarogahara dravyas* (drugs for cardiovascular diseases)..

Out of 426 drugs described by Bhavaprakash, 80 were described as *hridayarogahara dravyas* (drugs for cardiovascular diseases). Among these 70 are herbal, 8 animal and 2 drugs are of mineral origin. Out of the 70 herbal drugs 29 have been reported for their cardio protective activity. Out of 80 drugs 15 (18.51%) belong to *Haritakyadi varga*, 7 (8.64%) of drugs from *Karpuradi varga*, 21 (25.92%) belong to *Guduchyadi varga*, *Pushpa varga* has 6 (7.4%), *Vatadi varga* 2 (2.46%) are stated, *Amradiphala varga* 11 (13.58%), *Dhatvadi varga* 1 (1.23%), *Shaka varga* 5 (6.17%), *Mamsa varga* 6 (7.40%), *Vari varga* 2 (2.46%), *Dugdha varga* 1 (1.23%), *Dadhi varga* 1 (1.23%), *Taila varga* 1 (1.23%) and *Sandhana varga* 2 (2.46%).

Table 1: Cardioprotective drugs of *Haritakyadivarga* with respective references:

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
1.	Haritaki (<i>Terminalia chebula</i> Retz, <i>Terminalia cetrina</i> Roxb)	Combretaceae	Hrudamaya hara	B.P.N.1/21
2.	Shunthi (<i>Zingiber officinale</i> Roscoe)	Zingiberaceae	Hrudamaya hara	B.P.N.1/46
3.	Pippali (<i>Piper longum</i> Linn., <i>Chavica roxburghii</i>)	Piperaceae	Hrudya	B.P.N.1/58
4.	Ajamoda (<i>Apium graveolens</i> Linn.)	Umbelliferae	Hrudya	B.P.N.1/78
5.	Shatapushpa (<i>Anethum sowa</i> Kurz.)	Umbelliferae	Hrudya	B.P.N.1/92
6.	Kulinjana (<i>Alpinia galanga</i> Willd.)	Zingiberaceae	Hrudaya shodhana	B.P.N.1/105
7.	Aragwadha (<i>Cassia fistula</i> Linn.)	Leguminosae	Hrudrog nashaka	B.P.N.1/92
8.	Katuki (<i>Picrorhiza kurroa</i> Royle ex Benth.)	Scrophulariaceae	Hrudya	B.P.N.1/152
9.	Pashanbheda (<i>Saxifraga ligulata</i> Wall)	Saxifragaceae	Hrudruja hara	B.P.N.1/185
10.	Bakuchi (<i>Psoralea corylifolia</i> Linn.)	Leguminosae	Hrudya	B.P.N.1/208
11.	Chakramarda (<i>Cassia tora</i> Linn.)	Leguminosae	Hrudya	B.P.N.1/212
12.	Lashuna (<i>Allium sativum</i> Linn.)	Liliaceae	Hrudroga hara	B.P.N.1/223
13.	Bida lavana	-	Hrudroga	B.P.N.1/247
14.	Yavakshara (Potasii carbonas)	-	Hrudamaya hara	B.P.N.1/254
15.	Chukram	-	Hrudpida hara	B.P.N.1/261

Table 2: Cardioprotective drugs of Guduchyadi varga with respective references:

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
1.	Guduchi (<i>Tinospora cordifolia</i> Willd.)	Menispermaceae	Hrudroga hara	B.P.N.3/10
2.	Patala pushpa (<i>Stereospermum suaveolens</i> DC.)	Bignoniaceae	Hrudya	B.P.N.3/22
3.	Shyonak balaphala (<i>Oroxylum indicum</i> Vent.)	Bignoniaceae	Hrudya	B.P.N.3/28
4.	Brihati (<i>Solanum indicum</i> Linn.)	Solanaceae	Hrudya	B.P.N.3/36
5.	Kantakari (<i>Solanum xanthocarpum</i> Schrad & Wendl)	Solanaceae	Hrudamaya hara	B.P.N.3/41

6.	Gokshur (<i>Tribulus terrestris</i> Linn.)	Zygophyllaceae	Hrudroga hara	B.P.N.3/46
7.	Atarusha (<i>Adhatoda vasica</i> Nees)	Acanthaceae	Hrudya	B.P.N.3/90
8.	Shobhanjana (<i>Moringa pterygosperma</i> Gaertn)	Moringaceae	Hrudya	B.P.N.3/106
9.	Nala (<i>Phragmites kirka</i>)	Gramineae	Hrudpida hara	B.P.N.3/157
10.	Katrana (<i>Cymbopogon schoenanthus</i> Linn)	Gramineae	Hrudroga hara	B.P.N.3/168
11.	Shatavari (<i>Asparagus racemosus</i> Willd.)	Liliaceae	Hrudya	B.P.N.3/187
12.	Patha (<i>Cissampelos pareira</i> Linn)	Menispermaceae	Hrudruja hara	B.P.N.3/193
13.	Apamarga (<i>Achyranthes aspera</i> Linn.)	Amaranthaceae	Hrudruja hara	B.P.N.3/220
14.	Trayamana (<i>Delphinium zalil</i> Aitch & Hemsl)	Ranunculaceae	Hrudroga hara	B.P.N.3/243
15.	Moorva (<i>Marsdenia tenacissima</i> W & A)	Asclepiadaceae	Hrudroga hara	B.P.N.3/245
16.	Kakamachi (<i>Solanum nigrum</i> Linn)	Solanaceae	Hrudroga hara	B.P.N.3/247
17.	Akashavalli (<i>Cuscuta reflexa</i> Roxb)	Convolvulaceae	Hrudya	B.P.N.3/259
18.	Hingupatri (<i>Gardenia gummifera</i> Linn.)	Rubiaceae	Hrudroga hara	B.P.N.3/264
19.	Vamshapatri	-	Hrudroga hara	B.P.N.3/265
20.	Jalapippali (<i>Lippia nodiflora</i> Mich)	Verbenaceae	Hrudya	B.P.N.3/295
21.	Gojihva (<i>Elephantopus scaber</i> Linn)	Compositae	Hrudya	B.P.N.3/298

Table 3: Cardioprotective drugs of *Karpuradi varga* with respective references

Sr.No	Drug Name	Family	Action of drug	Corresponding reference #
1.	Jatiphala (<i>Myristica fragrans</i> Houtt)	Myristicaceae	Hrudruja hara	B.P.N.2/55
2.	Twakpatra (<i>Cinnamomum cassia</i> Blume)	Lauraceae	Hrudroga hara	B.P.N.2/65
3.	Baalam (Sugandhabala) (<i>Pavonia odorata</i> Willd)	Malvaceae	Hrudya	B.P.N.2/83
4.	Shaileyam (<i>Parmelia perlata</i> Ach.)	Parmeliaceae	Hrudya	B.P.N.2/91
5.	Choraka (<i>Angelica glauca</i> Edgw)	Umbelliferae	Hrudya	B.P.N.2/113
	Kankola (<i>Piper cubeba</i>)			

6.	Linn.f)	Piperaceae	Hrudya	B.P.N.2/116
7.	Elavaluka (Prunus cerasus linn)	Rosaceae	Hrudruja hara	B.P.N.2/121

Table 4: Cardioprotective drugs of *Pushpa varga* with respective references:

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
1.	Shatapatri (<i>Rosa centifolia</i> Linn)	Rosaceae	Hrudya	B.P.N.4/23
2.	Yuthika (<i>Jasminum auriculatum</i> Vahl)	Oleaceae	Hrudya	B.P.N.4/30
3.	Tulsi (<i>Ocimum sanctum</i> Linn)	Labiataeae	Hrudya	B.P.N.4/63
4.	Marubaka (<i>Origanum majorana</i> Linn)	Labiataeae	Hrudya	B.P.N.4/65
5.	Damanaka (<i>Artemisia vulgaris</i> Linn)	Compositae	Hrudya	B.P.N.4/68
6.	Barbari (<i>Ocimum basilicum</i> Linn)	Labiataeae	Hrudya	B.P.N.4/71

Table 5: Cardioprotective drugs of *Vatadi varga* with respective references:

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
1.	Kukubha (Arjuna) (<i>Terminalia arjuna</i> W&A)	Combretaceae	Hrudya	B.P.N.5/27
2.	Jingini (<i>Odina woodier</i> Roxb)	Anacardiaceae	Hrudroga hara	B.P.N.5/43

Table 6: Cardioprotective drugs of *Amradiphala varga* with respective references:

Sr.No.	Drug Name	Family	Action of Drug	Corresponding reference #
1.	Pakwa amraphala & amra beeja (<i>Mangifera indica</i> Linn)	Anacardiaceae	Hrudya & hrudaya daha hara	B.P.N.6/5,17
2.	Narikela jala (<i>Cocos nucifera</i> Linn)	Palmae	Hrudya	B.P.N.6/41
3.	Priyala majja (<i>Buchanania latifolia</i> Roxb)	Anacardiaceae	Hrudya	B.P.N.6/85
4.	Parushaka (<i>Grewia asiatica</i> Linn)	Tiliaceae	Hrudya	B.P.N.6/99
5.	Dadima phala (<i>Punica granatum</i> Linn)	Punicaceae	Hrudroga	B.P.N.6/102
6.	Kharjura (<i>Phoenix sylvestris</i> Roxb)	Palmae	Hrudya	B.P.N.6/118

7	Beejapura (<i>Citrus media</i> Linn)	Rutaceae	Hrudaya shodhana	B.P.N.6/131
8	Jambira (<i>Citrus limon</i> Linn)	Rutaceae	Hrudpida hara	B.P.N.6/134
9	Amlavetasa (<i>Garcinia pedunculata</i> Roxb)	Guttiferae	Hrudroga hara	B.P.N.6/145
10	Vrukshamla (<i>Garcinia indica</i> Chois)	Guttiferae	Hrudroga hara	B.P.N.6/149

Table 7: Cardioprotective drugs of *Dhatwadi varga* with respective references:

Sr.No	Drug Name	Action of drug	Corresponding reference #
1.	Samyak marita suvarna	Hrudya	B.P.N.7/10

Table 8: Cardioprotective drugs of *Shaka varga* with respective references:

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
1.	Alabu (<i>Lagenaria vulgaris</i> Ser.)	Cucurbitaceae	Hrudya	B.P.N.9/58
2.	Katutumbi (<i>Lagenaria vulgaris</i> Ser.)	Cucurbitaceae	Hrudya	B.P.N.9/59
3.	Patola (<i>Trichosanthes dioica</i> Roxb)	Cucurbitaceae	Hrudya	B.P.N.9/70
4.	Aaluki (<i>Calocasia antiquorum</i> Schott.)	Araceae	Hrudkapha nashini	B.P.N.9/98
5.	Kemuka (<i>Costus speciosus</i> Sm.)	Zingiberaceae	Hrudya	B.P.N.9/111

Table 9: Cardioprotective drugs of *Mamsa varga* with respective references:

Sr.No.	Drug Name	Action of drug	Corresponding reference #
1.	Mamsa	Hrudya	B.P.N.10/1
2	Lava mamsa	Hrudamaya hara	B.P.N.10/57
3	Prasuta aja mamsa	Hrudya	B.P.N.10/77
4	Edaka mamsa	Hrudya	B.P.N.10/83
5	Shilindhra matsya mamsa	Hrudya	B.P.N.10/106
6	Shashkuli matsya mamsa	Hrudya	B.P.N.10/112

Table 10: Cardioprotective drugs of *Vaari varga* with respective references:

Sr.No.	Drug Name	Action of drug	Corresponding reference
1.	Paniya	Hrudya	B.P.N.12/2

2.	Bhaumabhedasya jangaladi jalatraya	Hrudya	B.P.N.12/30
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Table 11: Cardioprotective drugs of *Dugdha varga* with respective references:

Sr.No.	Drug Name	Action of Drug	Corresponding reference #
1.	Piyusha, kilata, ksheerashaka & takrapinda	Hrudya	B.P.N.13/33

Table 12: Cardioprotective drugs of *Dadhi varga* with respective references:

Sr.No.	Drug Name	Action of drug	Corresponding reference #
1.	Go Dadhi	Hrudya	B.P.N.14/10

Table 13: Cardioprotective drugs of *Taila varga* with respective references:

Sr.No.	Drug Name	Action of Drug	Corresponding reference #
1.	Eranda taila	Hrudroga Hara	B.P.N.19/24

Table 14: Cardioprotective drugs of *Sandhanavarga* with respective references:

Sr.No.	Drug Name	Action of Drug	Corresponding reference #
1.	Tushambu	Hrudya	B.P.N.20/7
2.	Purana madira	Hrudya	B.P.N.20/31

- B.P.N. - *Bhavaprakash Nighantu*, by Chunekar KC, Reprint edition 2004, Chaukhambha bharti academy, Varanasi. First number is corresponding number of *varga* and second number is respective verse.

CONCLUSION:

The present review on cardio-protective drugs of *Bhavaprakash Nighantu* can be useful to know about the different drugs which can be used in the treatment of *Hrudroga*. Total 80 drugs are mentioned in *Bhavaprakash Nighantu* comprising herbal, mineral and animal origin drugs. All the drugs have been mentioned as *Hrudya*, but the mode of action has not been explained in detail. A detailed clinical study is required to understand the mode of action of these drugs and their efficacy.

For the prevention of heart diseases and cerebrovascular diseases, a herbal polypill can be developed by incorporating Ayurvedic herbs with

known and proven value like – *Guggulu, Arjuna, Pushkarmoola, Lasuna, Amalaki* and *Jatamansi* for managing risk factors of cardiovascular conditions. Adaptation of performing *Suryanamaskara* (Sun salutation) may have added value in the programme of prevention of cardiovascular diseases.

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