



## Cardio-Protective Drugs of Bhavaprakash Nighantu: A Literary Survey

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### ABSTRACT

*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. 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 81 were described for the treatment of cardiovascular diseases throughout the text which includes herbal, mineral and animal origin drugs.*

**KEYWORDS :** Cardiovascular diseases, Hrudya, Cardioprotective drugs, Bhavaprakash Nighantu.

### INTRODUCTION

According to WHO, an estimated 17.3 million people died from cardiovascular diseases in 2008. Over 80% of cardiovascular deaths take place in low and middle-income countries. By 2030, almost 23.6 million people will die from cardiovascular diseases<sup>1</sup>. 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.

The prevalence of coronary heart disease is known to be high in people of south Asian descent (subjects originally from Indian subcontinent). 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 central or visceral obesity. For men and women, cardiovascular risk is known to increase with age, smoking, hypertension, blood lipids and glucose levels, and central obesity<sup>2</sup>.

The current therapies to prevent or cure cardiovascular diseases are also 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*<sup>3</sup> by Acharya Charaka, *Parushakadi gana*<sup>4</sup> by Acharya Sushruta and *Vidaryadi gana*<sup>5</sup> 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:

This study shows literary review on *Bhavaprakash Nighantu* considering mainly on cardio-protective drugs. *Bhavaprakash Nighantu* mentions total 81 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* (cardio-

protective). There are herbal drugs as well as animal and mineral origin drugs which act as cardio-protective.

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 type's viz. *vataja*, *pittaja*, *kaphaja*, *sannipataja* and *krimija* respectively<sup>6</sup>. 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<sup>7</sup>. In this study the drugs explained directly as cardio-protective by *Bhavamishra* is screened and documented and which can be more helpful for better treatment modalities and results.

Out of 81 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 Haritakyadi varga 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 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
6.	Kankola ( <i>Piper cubeba</i> Linn.f)	Piperaceae	Hrudya	B.P.N.2/116

7.	Elavaluka ( <i>Prunus cerasus</i> Linn)	Rosaceae	Hrudruja hara	B.P.N.2/121
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**Table 3: 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 4: Cardioprotective drugs of Pushpa varga with respective references:**

Sr.No.	Drug Name	Family	Action of drug	Corresponding reference #
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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 beej ( <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	English 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: Catrdioprotective 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

**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 Sandhana varga 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 Chuneekar KC, Reprint edition 2004, Chaukhamba 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 81 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.

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