

## EFFICACY OF *PRABHAKAR VATI* IN THE MANAGEMENT OF *HRIDAY ROGA*- A CLINICAL STUDY

Shukla Amit Kumar<sup>1</sup>, Prasad Kamleshwar<sup>2</sup>, Singh Madhu<sup>3</sup>

<sup>1</sup>Ph.D, MD (Ayu) Sharira Rachana , Professor, Dept. of Sharira Rachana, J. D. Ayurvedic Medical College & Hospital, G.T. Road, Bhankari, Aligarh, Uttar Pradesh, India,

<sup>2</sup>MD (Ayu) Rog Nidan Evam Vikriti Vigyan, Associate Professor in Dept. of Rog Nidan Evam Vikriti Vigyan, Government Ayurvedic College and Hospital, Varanasi, Uttar Pradesh, India,

<sup>3</sup>M. Pharma (Pharmaceutical Chemistry), Assistant Professor, Dept. of Pharmacy, Chandra Shekhar Singh College of Pharmacy, Kaushambi, Allahabad U.P. India,

Email: [dramitshukla24@gmail.com](mailto:dramitshukla24@gmail.com)

### ABSTRACT

Present clinical study was conducted on *hriday roga* in which total 50 ailments were registered on the behalf of inclusion and exclusion criteria and symptoms rating score are used to assess the severity of symptoms like absent, mild, moderate and severe. The trial medicine *prabhakar vati* was given to the patient and raw data are gathered and organized for analysis. First of all, all registered patients were grouped in three sections i.e. *vataj*, *pittaj* and *kaphaj* on the basis of their *prskriti*, after that each parametric and nonparametric data are compare to each other and interpreted by applying chi-square and 't' test etc. as per aim and objectives. Hence the results ( $P > 0.001$ ) occur in different pathological finding are varies from non significant to highly significant.

**Key notes:** *Hriday roga*, *vataj*, *pittaj*, *kaphaj prabhakar vati*, BP (blood pressure), DSP (diastolic blood pressure) and SBP (systolic blood pressure).

### INTRODUCTION

In ancient medical science, the *hriday roga* comprises of a group of diseases of the heart and cardiovascular system and fall under the chronic and non-communicable diseases. The *hriday roga* is defined as a heart disease and characterized by different kinds of pain in the heart. There are five types of *hriday roga* are

mentioned on the basis of their *hetu* and vitiation of *dosha*<sup>[1&2]</sup>. The chronic and non-communicable diseases are assuming increasing importance among the adult population in both developed and developing countries. In today's world, most deaths are attributable to non-communicable diseases and just over half of

these are as a result of cardiovascular diseases; more than one third of these deaths occur in middle aged-adults. In developed and developing countries, heart diseases and stroke are the first two leading cause of death in adult population. These facts are familiar and hardly surprisingly, however, surprisingly some of the developing countries, cardiovascular diseases have also become the first two causes responsible for one-third of all deaths [3].

### MATERIAL AND METHODS:

**Selection of patients** On the basis of inclusion and exclusion criteria 50 patients of *hriday roga* were registered from O.P.D. & I.P.D. of state *Ayurvedic* college and hospital Lucknow, who were clinically found appropriate for clinical study.

#### Inclusion criteria

1. Those patient presents with clinical features of *hriday roga*
2. Age between 20 to 70 years.

#### Symptoms rating score of *hriday roga*:

S. No.	Severity of symptoms	Score	Scoring symbol
1.	Absent	0	-
2.	Mild	1	+
3.	Moderate	2	++
4.	Severe	3	+++

#### Objective parameters:-

1. Haematological: - Hb%, TLC, DLC, ESR
2. Serological:- Lipid profile
3. Stool examination
4. ECG
5. X-Ray chest P/A view

**Drug delivery and duration:** Out of 60 registered cases only 50 patients were completed their trial and study was carried out under single group.

3. Patients of either sex will be selected.

#### Exclusion criteria

1. Age below 20 and above 70 years.
2. Congenital heart diseases
3. Cardiac failure due to any reason.
4. Infective pathology of heart.

#### Discontinuous criteria

1. A non cooperative patient.
2. Whose symptoms are aggravated?
3. Who developed hypersensitivity for any constituents of trial medicine?

**Assessment criteria:** Assessment of the effect of therapy was done on the following parameters.

**Subjective parameters:** Assessment for any improvement in various clinical features of *hriday roga* was done once in a fortnight for 3 months on the basis of grade scoring methods.

#### Ingredients of drug:

1. *Swarna Makshika Bhasma*
2. *Loha Bharna*
3. *Abhrak Bhama*
4. *Banslochan*
5. Purified Silajatu

#### Bhavana dravya:-*Arjun twak*

- **Preparation:** The *Prabhakar vati* was constituted according to *vati* preparation method in *rasshastra* pharmacy of state *ayurvedic* college and Hospital, Lucknow.

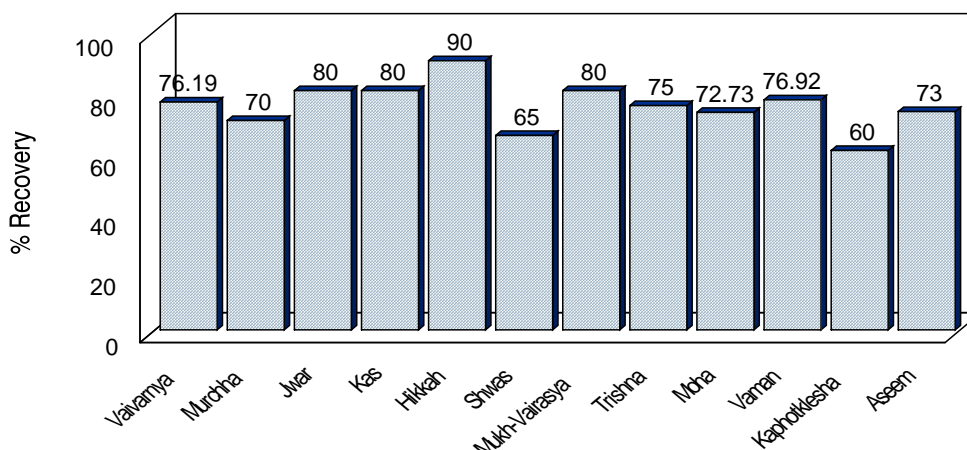
- **Dose:** Two vati morning and evening
- **Anupan:** Luke warm water
- **Course:** 3 Month
- **Rout of drug administration:** Oral
- **Follow up:** Patients were followed up once in fortnight for 3months

**Data documentation and statistical analysis:**  
 It was a clinical study under single blind test and its all data were analyzed using appropriate statistical tests. All values of quantitative variables are expressed as percentage and calculated as percentage, mean,  $\pm$ SD, SE,  $\chi^2$  and t-test.

## RESULT AND DISCUSSION

**Table 1:** Showing the efficacy of drug on subjective parameters

SN	Symptoms	BT				AT				No. of recovery	% Recov-ery	$\chi^2$	'p'	Significance
		3+	2+	1+	0	3+	2+	1+	0					
1	Vaivarnya	18	20	4	8	0	0	10	40	32	76.19	61.9	<0.001	S
2	Murchha	5	24	1	20	0	0	9	41	21	70	42.63	<0.001	S
3	Jwar	7	16	2	25	0	0	5	45	20	80	30	<0.001	S
4	Kas	5	22	3	20	0	0	6	44	24	80	37	<0.001	S
5	Hikkah	4	5	1	40	0	0	1	49	9	90	10.9	<0.01	S
6	Shwas	16	22	2	10	0	0	14	36	26	65	61.7	<0.001	S
7	Mukh-Vairasya	12	17	1	20	0	0	6	44	24	80	41.6	<0.001	S
8	Trishna	14	16	2	18	0	0	8	42	24	75	43.20	<0.001	S
9	Moha	15	16	2	17	0	0	9	41	24	72.73	45.4	<0.001	S
10	Vaman	3	9	1	37	0	0	3	47	10	76.92	14.2	<0.01	S
11	Kaphotklesha	8	11	1	30	0	0	8	42	12	60	26.44	<0.001	S
12	Aseem	12	13	1	24	0	0	7	43	19	73	34.9	<0.001	S



Graph-1

Table 1 and graph 1 show the significant improvement in clinical manifestation of all patient which is highly significant ( $P < 0.001$ ) changes occur in mukha-vaivanya, murchha,

jwar, kas, hikka, shwas, mukha-vairasya, moha, kaphotklesha, aseem and only significant ( $P < 0.01$ ) in vama and trishna like symptoms.

**Table 2:** Showing efficacy of drug in ailments of *vatajprakriti*

SN	Symptoms	No. of Cases		Recovery	% Recovery	$\chi^2$	'p'	Significance
		BT	AT					
1	<i>Vaivarnya</i>	11	7	4	36.4	10.27	<0.01	S
2	<i>Murchha</i>	9	4	5	55.6	6.54	<0.01	S
3	<i>Jwar</i>	8	3	5	62.5	7.27	<0.01	S
4	<i>Kas</i>	9	4	5	55.6	6.92	<0.01	S
5	<i>Hikkah</i>	4	1	3	75.0	4.20	<0.05	S
6	<i>Shwas</i>	10	6	4	40	4.75	<0.05	S
7	<i>Mukha-Vairasya</i>	8	4	4	50	5.33	<0.05	S
8	<i>Trishna</i>	9	3	6	66.7	9.00	<0.01	S
9	<i>Moha</i>	10	5	5	50	6.67	<0.01	S
10	<i>Vaman</i>	4	2	2	50.0	2.33	0.12	NS
11	<i>Kaphotklesha</i>	6	3	3	50.0	4.00	<0.05	S
12	<i>Aseem</i>	8	4	4	50.0	5.33	<0.05	S
		96	43	53	53.48±10.71			

Table 2 shows the significant improvement in sign and symptoms of *vataj prakriti*'s ailments *vaivanya*, *murchha*, *jwar*, *kas*, *hikka*,

*shwas*, *trishna*, *mukha-vairasya*, *moha*, *kaphotklesha*, *aseem* and only non significant (P < 0.12) in *vamana*.

**Table 3:** Showing efficacy of drug in ailments of *pitajprakriti*

SN	Symptoms	No. of Cases		Recovery	% Recovery	$\chi^2$	'p'	Significance
		BT	AT					
1	<i>Vaivarnya</i>	11	–	11	100	22.00	<0.001	S
2	<i>Murchha</i>	5	–	5	100	10.00	<0.001	S
3	<i>Jwar</i>	5	–	5	100	10.00	<0.001	S
4	<i>Kas</i>	8	–	8	100	16.00	<0.001	S
5	<i>Hikkah</i>	2	2	0	0	0	1	S
6	<i>Shwas</i>	12	1	11	91.7	20.31	<0.001	S
7	<i>Mukh-Vairasya</i>	9	0	9	100	18.00	<0.001	S
8	<i>Trishna</i>	9	0	9	100	18.00	<0.001	S
9	<i>Moha</i>	7	1	6	85.71	10.50	<0.001	S
10	<i>Vaman</i>	3	0	3	100	6.00	<0.01	S
11	<i>Kaphotklesha</i>	2	0	2	100	6.00	<0.01	S
12	<i>Aseem</i>	4	0	4	100	8.00	<0.01	S
		77	4	75	89.87±28.35			

The *pittaj prakriti* patients show important resurgence in all sign and symptoms. There were highly significant (P < 0.001) changes occur in *mukha-vaivanya*, *murchha*, *jwar*, *kas*, *shwas*, *mukh-vairasya*, *trishna*, and *moha* and only

significant (P < 0.01) improvement found in *vamana*, *kaphotklesha* and *aseem* like symptoms. But the effect of medicine on *hikka* was not significant.

**Table 4:** Showing efficacy of drug in ailments of *kaphajprakriti*

SN	Symptoms	No. of Cases		Recovery	% Recovery	$\chi^2$	'p'	Significance
		BT	AT					
1	<i>Mukha-vaivarnya</i>	20	6	14	70	21.54	<0.001	S
2	<i>Murchha</i>	16	5	11	69	16.24	<0.001	S
3	<i>Jwar</i>	12	2	10	83.3	17.14	<0.001	S
4	<i>Kas</i>	13	2	11	84.62	19.07	<0.001	S
5	<i>Hikkah</i>	4	2	2	50	–	–	S
6	<i>Shwas</i>	18	7	11	61.11	15.84	<0.001	S
7	<i>Mukh-Vairasya</i>	13	2	11	84.62	19.07	<0.001	S
8	<i>Trishna</i>	14	5	9	64.30	13.26	<0.001	S
9	<i>Moha</i>	16	3	13	81.3	21.89	<0.001	S
10	<i>Vaman</i>	6	1	5	83.33	8.57	<0.01	S
11	<i>Kaphotklesha</i>	12	5	7	58.33	9.88	<0.01	S
12	<i>Aseem</i>	14	3	11	78.57	18.12	<0.001	S
		158	43	115	72.37±11.92			

The *kaphaj* dominating *prakriti* shows a significant improvement in all symptoms because the p value ranges from < 0.001 to < 0.01.

**Table 5:** Comparative study of Pathological Findings in *vataj* group of ailments

SN	Finding	Mean±SD		Change (Mean±SD)	't'	'p'
		BT	AT			
1.	TLC	8700±210.0	7800±220.0	900±120	25.98	<0.001
2.	DLC					
	L	57±3.20	59.0±4.20	2±1.20	5.77	<0.001
	M	38±4.20	39.0±3.20	1±0.50	6.94	<0.001
	E	5±1.20	2.0±2.10	3±0.90	11.55	<0.001
	B	0±0	0±0	0±0	0	NS
3.	ESR	17.0±4.50	9.0±5.60	8.0±2.42	11.45	<0.001
4.	Hb	11.10±2.40	12.10±2.30	1.0±0.30	11.55	<0.001
5.	Lipids					
	TC	280.0±20.42	185.0±15.40	95±8.420	39.08	<0.001
	TG	230±15.42	150.0±20.0	80.0±10.42	26.59	<0.001
	HDL	38±4.20	41.0±3.40	3.0±1.50	6.93	<0.001
	LDL	188±10.20	118.0±12.60	70±6.50	37.31	<0.001

**Table 6:** Comparative study of Pathological Findings in *Kaphaj* group of ailments

SN	Finding	Mean±SD		Change (Mean±SD)	't'	'p'
		BT	AT			
1.	TLC	8400±560	7200±510.0	1200±150	38.4	<0.001
2.	DLC					
	L	56±4.20	59.0±5.20	3±1.20	11.98	<0.001

	M	37±2.10	38.0±4.20	1±0.80	6.00	<0.001
	E	6±1.50	4.0±1.40	2±0.50	19.2	<0.001
	B	1±0.40	1±0.40	0±0	0	NS
3.	ESR	20.0±5.40	8.0±3.60	12.0±5.40	10.67	<0.001
4.	Hb	11.10±2.20	12.50±1.60	1.50±0.40	18.00	<0.001
5.	Lipids					
	TC	290.0±30.50	180.0±20.40	110±10.40	50.80	<0.001
	TG	240±20.42	150.0±30.0	90.0±12.60	36.00	<0.001
	HDL	35.0±3.42	42.0±5.60	7.0±2.40	14.00	<0.001
	LDL	194.0±15.20	114.0±15.20	80±10.20	37.65	<0.001

There was significant change in pathological findings in *kaphaj* group after treatment.

**Table 7:** Comparative study of Pathological Findings in *Pittaj* group of ailments

SN	Finding	Mean±SD		Change (Mean±SD)	't'	'p'
		BT	AT			
1.	TLC	9025±150	7475±210	1550±200	30.23	<0.001
2.	DLC					
	L	58±5.10	60.0±6.20	2.0±1.50	5.16	<0.001
	M	36±3.10	37.0±4.20	1.0±0.60	6.50	<0.001
	E	5±1.50	2.0±2.10	3.0±2.10	5.57	<0.001
	B	1±0.50	1.0±0.50	0±0	0	NS
3.	ESR	25.0±6.20	9.0±4.60	16.0±5.40	11.56	<0.001
4.	Hb	11.20±2.40	12.30±1.62	2.10±0.70	11.70	<0.001
5.	Lipids					
	TC	310.0±30.40	180.0±25.6	130±10.40	48.8	<0.001
	TG	260±25.4	140.0±30.5	120.0±12.60	37.14	<0.001
	HDL	32.0±4.20	43.0±5.20	11.0±2.40	17.75	<0.001
	LDL	210.0±20.20	110.0±10.20	100±15.72	24.81	<0.001

**Table8:** Comparative study of pathological Findings among the groups

Finding	Vataj	Kaphaj	Pittaj
TLC	900±120	1200±150	1550±200
DLC			
L	2±1.20	3±1.20	2.0±1.50
M	1±0.50	1±0.80	1.0±0.60
E	3±0.90	2±0.50	3.0±2.10
B	0±0	0±0	0±0
ESR	8.0±2.42	12.0±5.40	16.0±5.40
Hb	1.0±0.30	1.50±0.40	2.10±0.70
Lipids			
TC	95±8.420	110±10.40	130±10.40
TG	80.0±10.42	90.0±12.60	120.0±12.60
HDL	3.0±1.50	7.0±2.40	11.0±2.40
LDL	70±6.50	80±10.20	100±15.72

**Table 9:-**Pathological significance in terms of ‘t’ and ‘p’ value among groups

Finding	Vataj vs Kaphaj		Vataj vs Pittaj		Kaphaj vs Pittaj	
	't'	'p'	't'	'p'	't'	'p'
TLC	5.99	<0.001	9.90	<0.001	6.16	<0.001
DLC						
L	2.34	<0.05	0	1	2.27	<0.05
M	0	1	0	1	0	1
E	4.30	<0.001	0	1	2.20	<0.05
B	0	1	0	1	0	1
ESR	2.43	<0.05	4.75	<0.001	2.23	<0.05
Hb	3.80	<0.001	5.07	<0.001	3.37	<0.01
Lipids						
TC	4.30	<0.001	9.43	<0.001	5.79	<0.001
TG	2.44	<0.05	8.83	<0.001	7.39	<0.001
HDL	5.24	<0.001	10.06	<0.001	5.02	<0.001
LDL	3.07	<0.01	6.19	<0.001	4.77	<0.001

Hb, TLC, DLC and ESR were not directly involved to the heart diseases but statically these objective parameters have equal and great significance (P< 0.001) in all groups. But every contents of lipid profile like total cholesterol, triglyceride, HDL and LDL have major im-

provement after take the medicine and show highly significant change in P values (P< 0.001) in all three groups. Lipid profile too revealed significantly higher values of all the components in *pittaj* group followed by *kaphaj* group and then *vataj* group.

**Comparative study of ECG findings in among three groups:-**

**Table 10:**

SN	Finding	Mean±SD		Change (Mean±SD)	't'	'p'
		BT	AT			
1.	PR interval					
	V	0.26±0.04	0.136±0.02	0.124±0.02	21.40	<0.001
	P	0.23±0.03	0.144±0.02	0.086±0.02	20.62	<0.001
	K	0.28±0.04	0.130±0.02	0.15±0.02	29.05	<0.001
2.	QRS					
	V	0.13±0.02	0.08±0.01	0.05±0.01	17.32	<0.001
	P	0.11±0.02	0.085±0.012	0.025±0.01	11.99	<0.001
	K	0.14±0.02	0.085±0.01	0.055±0.01	21.30	<0.001

**Table 11:**

Finding	Vataj	Pittaj	Kaphaj
PR interval	0.124±0.02	0.15±0.02	0.086±0.02
QRS	0.05±0.01	0.055±0.01	0.025±0.01

**Table12:**

Finding	Vataj vs Kaphaj		Vataj vs Pittaj		Kaphaj vs Pittaj	
	't'	'p'	't'	'p'	't'	'p'
PR interval	5.34	<0.001	3.36	<0.001	9.64	<0.001
QRS	7.02	<0.001	1.29	NS	9.04	<0.001

PR interval changes was occurred maximum in *pittajprakriti* then *vataj* and *kaphaj p Prakriti* subsequently and these changes were highly significant (P<0.001). QRS complex changes greater in *kaphaj prakriti* than in *vataj*

*prakriti* and minimum in *pittaj prakriti* and p values of each group is equally highly significant (P<0.001).

**Comparative study of blood pressure among three groups:-**

**Table 13:**

SN		Mean±SD		Change (Mean±SD)	't'	'p'
		BT	AT			
1.	SBP					
	V	180±20.0	155±15.60	25.0±5.20	16.7	<0.001
	K	160±18.20	130±10.00	30.0±4.40	32.70	<0.001
	P	150±15.20	115±10.00	35±5.60	24.21	<0.001
2.	DBP					
	V	100±10.0	90.0±8.40	10.0±3.0	11.56	<0.001
	K	94.0±8.00	82.0±6.20	12.0±2.0	28.77	<0.001
	P	86.0±6.00	70.0±4.20	16.0±2.0	30.98	<0.001

Mean SBP and DBP were found to be decreased in all the three groups. There is a sig-

nificant change in SBP and DBP after treatment in three groups (p<0.001).

**Table14:**

Findings	Vataj	Kaphaj	Pittaj
SBP	25.0±5.2	30±4.40	35.0±5.6
DBP	10.0±3.0	12.0±2.0	16.0±2.0

**Table 15:**

Findings	Vataj vs Kaphaj		Vataj vs Pittaj		Kaphaj vs Pittaj	
	't'	'p'	't'	'p'	't'	'p'
SBP	2.99	<0.001	4.76	<0.001	3.07	<0.001
DBP	2.36	<0.05	6.21	<0.001	6.03	<0.001

SBP/DBP change was found maximum in *pittajprakriti* then in *kaphaj prakriti* and min-

imum in *vataj prakriti* and these changes was equally significant(p<0.001).



**Table 16:** Comparative study of X-ray Findings in Three Groups:-

Cardiomegaly	Vataj		Kaphaj		Pittaj	
	BT	AT	BT	AT	BT	AT
	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)
Present	12 (100)	6 (50)	21 (91.30)	5 (21.7)	–	–
Absent	– (0)	6 (50)	2 (8.70)	18 (78.3)	15 (100)	15 (100)
	12 (100)	12 (100)	23 (100)	23 (100)	15 (100)	15 (100)
	$\chi^2=5.66$ p<0.01 (S)		$\chi^2=19.90$ p<0.001 (S)		–	

There is significant change in X-ray findings in Vataj Prakriti and KaphajPrakriti groups and is

significant (p<0.001). There was no finding in Pittaj prakriti.

**Table 17:** Comparative study of Stool Examination in Three Groups:-

Findings in the Stool		Vataj		Kaphaj			
		BT	AT	BT	AT	BT	AT
		No.(%)	No.(%)	No.(%)	No.(%)	No.(%)	No.(%)
Ova	Present	4 (33.3)	– (0)	–	–	4 (26.7)	–
	Absent	8 (66.7)	12 (100)	23 (100)	23 (100)	11 (73.3)	15 (100)
Total		12 (100)	12 (100)	23 (100)	23 (100)	15 (100)	15 (100)
		$\chi^2=4.80$ p<0.05 (S)		–		$\chi^2 = 4.62$ p<0.05 (S)	
Cyst	Present	4 (33.3)	– (0)	1 (4.35)	–	7 (46.7)	–
	Absent	8 (66.7)	12 (100)	22 (95.65)	23 (100)	8 (53.3)	15 (100)
Total		12 (100)	12 (100)	23 (100)	23 (100)	15 (100)	15 (100)
		$\chi^2=4.80$ p<0.05 (S)		$\chi^2=1.02$ p=0.31 (NS)		$\chi^2 = 9.13$ p<0.001 (S)	

There was significant change in ova/cyst after treatment in vataj prakriti and pittaj prakriti. Ova in kaphaj group were absent and no significant change in cyst of kaphaj group.

The above statistical evaluation and comparison of stool examination in vataj, pittaj and kaphaj prakriti throws light in certain cases of krimij hridroga.

### CONCLUSION

Prabhakar vati with lukewarm water was extremely significantly effective in improving the symptoms of vaivanya, murchha, jwar, kas, hikka, shwas, much-vairasya, moha, , kaphotklesha, aseem and only significant (P <

0.01) in vamana and trishna and it is also similar effective in hematological, biochemistry (Lipid profile) and ECG findings. The therapy was well tolerated by all patients and no unwanted effect was reported during the trial period. Hence the drug trial is safe, easy available and cost effective and can be recommended to the patients of hridaya roga.

### REFERENCES

1. Madhava Nidana with Vidyotani Hindi Commentary by sri Sudarsan Shastri, Part-I, Published by Chaukhambha Sasmskrit Sans-thana, Varanasi, Ed.3<sup>rd</sup> (1996), reprint-2012, pp. 445.

2. .Chraka Samhita With “English translation By Professor P.V. Sharma, Part 1, Chaukhambha Orientalia, Varanasi, Reprint -2011, pp. 117.
  3. K.Park; Park’s text book of Preventive and social medicine published by M/s BANARASIDAS BHANOT, Jabalpur, edition 20<sup>th</sup>-2009. Pp. 315-317.
- 

**Source of Support: Nil**

**Conflict Of Interest: None Declared**

How to cite this URL: Shukla Amit Kumar Et Al: Efficacy Of Prabhakar Vati In The Management Of Hriday Roga- A Clinical Study). International Ayurvedic Medical Journal {online} 2017 {cited March, 2017} Available from: [http://www.iamj.in/posts/images/upload/652\\_661](http://www.iamj.in/posts/images/upload/652_661).