

A CLINICO-PATHOLOGICAL STUDY ON PANDUROGA AND IT'S MANAGEMENT WITH RAKTABASTI AND VASADI KWATH

GHANAVATI

Dr. Panda Antaryami*¹, Prof. (Dr.) Panda Pradip Kumar² and Dr. Sahu Manoranjan³

¹P.G. Scholar (3rd year), ²Professor and Head, ³Lecturer,

P.G. Department of Roga Nidana evam Vikriti Vigyan, Govt. Ayurvedic College and
Hospital, Balangir, Odisha-767001.

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*Corresponding Author

Dr. Panda Antaryami

P.G. Scholar (3rd year), P.G.
Department of Roga Nidana
evam Vikriti Vigyan, Govt.
Ayurvedic College and
Hospital, Balangir, Odisha-
767001.

ABSTRACT

Introduction:- *Panduroga*, described in Ayurveda resembles to the clinical features of Anaemia. Anaemia is defined as a condition in which the total Haemoglobin (Hb gm%) level is poorly lowered.

Materials and methods:- A clinical study on 30 Panduroga patients with low level of Hb gm%; 10 patients in each group (*Group A, Group B and Group C*) were registered from OPD and IPD of Govt. Ayurvedic College and Hospital, Balangir. In *Group A* patients, 60 ml of blood of a previously screened donor with same blood group was given per rectally after pre-operative management. The same procedure was repeated after 48 hours. In *Group B*, patients were given “*Vasadi kwath Ghanavati*” 2tab (500 mg each) thrice daily with honey orally for 30 days. In *Group C*, patients were given both “*Raktabasti*”

and “*Vasadi kwath Ghanavati*” as per the above procedures. The patients were followed up at 5 days interval upto 30 days in order to find the efficacy of both the trials by statistical paired *t* test.

Observation and result:- There was 62.87% of improvement in signs and symptoms and 37.8% of increase in the level of Hb gm% ($P < 0.001$) in the patients of *Group A*, 43.26% of improvement in signs and symptoms and 10.66% of increase in the level of Hb gm% ($P < 0.02$) in the patients of *Group B*, 71.33% of improvement in signs and symptoms and 38.66% of increase in the level of Hb gm% ($P < 0.001$) in the patients of *Group C*.

Conclusion:- The overall study revealed that the trial on “*Raktabasti*” with “*Vasadi kwath Ghanavati*” (*Group C*) showed more efficacy than both the independent trial (*Group A* and *Group B*).

KEYWORDS:-Panduroga, Raktabasti, Vasadi kwath Ghanavati.

INTRODUCTION

Panduroga is a disease characterized by pallor of body which strikingly resembles with Anaemia.^[1] Anaemia can be defined by a condition in which the total Haemoglobin (Hb gm%) level or number of red blood cells (RBCs) is poorly lowered.^[2] Anaemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiologic needs, which vary by age, sex, altitude, smoking, and pregnancy status.^[3] As per Ayurveda, *Panduroga* comes under *Rasapradoshaja vikara* and *Raktadhatu kshaya* is its common symptom.

Ayurveda describes many superlative degrees of medications to treat *Panduroga*. Many mineral and herbal preparations are there which are sure shots to treat anemia with remarkable results in mild and moderate degree of Anaemia. But, the management of severe degree of Anaemia with Ayurveda is questionable. It is the excellency of our ancient Ayurveda that Maharshis of old era also described "*Raktabasti*"^{[5] [6] [7]} that is so much efficient to treat severe degree of Anaemia or *Panduroga* in profuse blood loss. So an attempt of was taken to treat Anaemia of severe degree through the application of *Raktabasti* and its comparative study with proved herbal medication named as "*Vasadi kwath Ghanavati*"^[8]

MATERIALS AND METHOD

Study Design: In this research work total 30 patients of *Panduroga* (Anemia) attended Govt. Ayurvedic College, Balangir were selected as per the following criteria.

Inclusive Criteria

- a) Patient with clinical features of *Panduroga* (Anaemia)
- b) Patients with Nutritional deficiency anaemia, Sickle cell anaemia, Thalassemia, ESRD with anaemia.
- c) Haemoglobin in between 5 to 8 gm/dl.
- d) The relative of the patient was preferred as voluntary donor of same blood group.
- e) The donor was screened for HIV, Hepatitis B, Hepatitis C, VDRL etc.
- f) Age group in between 14 to 50 years.

Exclusion Criteria

- a) Age less than 14 and more than 50 years.

- b) Haemoglobin less than 5 gm/dl and more than 8 gm/dl.
- c) Anaemia associated with underlying diseases like malignancy and any life threatening condition.
- d) Pregnant and lactating women.

SELECTION OF THERAPY AND DRUG

Background of drug selection: *Raktabasti*.^{[5][6][7]} mentioned in Ayurvedic classics was selected and direct blood was introduced through anal route with the following procedure.

Pre-operative phase

- a) The patient was asked to take *laghu supachyaaahara* (breakfast) before undergoing the procedure.
- b) It was strictly observed that the stomach of the patient was not empty.
- c) The rectum was kept empty.
- d) The donor and the recipient were kept lying on adjacent beds.
- e) The blood pressure, pulse, temperature, respiratory rate were monitored accordingly.

Operative phase

- a) Taking all antiseptic precautions, the donor was pricked from medial cubital vein and 60 ml of blood was taken out slowly with 18 no. needle attached to 100 ml sterilized syringe.
- b) The recipient was laid on left lateral position.
- c) As soon as 60 ml blood was taken from the donor, the needle was removed and a no.10 sterilized rubber catheter was fixed to the nozzle of the syringe.
- d) The catheter was lubricated and immediately introduced per rectum of the recipient up to 5 cms.
- e) The syringe was emptied slowly and meanwhile patient was asked to take deep breath.

Post-operative phase

- a) The rubber catheter was pulled out from the anus and patient was asked to sleep 20-30 minutes in the same position.
- b) Blood Pressure, Pulse, Temperature and Respiration rate were monitored accordingly.
- c) The same procedure was repeated after 48 hours.

For comparative clinical study a herbal formulation named as “Vasadi kwath”^[8] was selected for clinical trial.

Drug: Vasadi kwath

Reference: A.H. chi 16/13 in Panduroga chikitsa

Ingredients

1. Vasa
2. Guduchi
3. Haritaki
4. Bibhitaka
5. Amalaki
6. Katuki
7. Bhunimba
8. Nimba

The kwath was converted to Ghanavati and 500 mg tablet has been made.

Schedule of treatment

Drug-Vasadi Kwath Ghanavati

Dose- 3 grams per day (6 tablet), 2 tablets thrice daily.

Time-Empty stomach half an hour before food

Anupana: -Madhu (Honey)

Duration-30 days

Parameters

During the clinical study the following parameters have been under consideration

1. Response on Clinical sign & symptoms before and after treatment through the scoring system
2. Change of Hematological findings like Hb%, TRBC, MCV, MCH, MCHC, PCV and ESR

Criteria for Assessment

The assessments of the result were made on the basis of improvement in clinical findings as well as laboratory investigations, which had been repeated after the completion of treatment also.

RESULTS AND DISCUSSION

The results obtained after the completion of the trial were recorded in tabular forms along with graphical presentations as follows (Table no- 1 to 6 and Chart no- 1 to 6).

Table 1: Effect of Raktabasti on subjective parameters (Group A).

Sign & Symptoms	N	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
		BT	AT					
Panduta	10	2.5	1.5	40	0.89	0.28	3.53	<0.01
Daurbalya	10	2.1	1.0	52.38	0.8	0.25	2.37	<0.05
Hridspandana	10	1.8	1.4	22.22	0.49	0.15	2.58	<0.05
Bhrama	10	2.0	1.6	20	0.66	0.21	1.9	<0.10
Sunakshikuta	10	2.5	2.1	16	0.49	0.16	2.58	<0.05
Rukshyata	10	2.1	1.5	28.57	0.66	0.21	2.86	<0.02
Swasha	10	1.9	1.3	31.58	0.49	0.16	3.87	<0.01
Angamarda	10	2.3	1.8	21.74	0.5	0.16	3.16	<0.02
Karnakhweda	7	1.3	0.5	61.54	0.75	0.24	3.38	<0.02
Aruchi	10	2.3	2.2	4.34	0.3	0.09	1.05	<0.10
Sotha	10	2.2	1.4	36.36	0.75	0.24	3.38	<0.01
Pindikodwesthana	10	2.5	2.2	12	0.46	0.15	2.07	<0.10
Jwara	10	1.3	1.0	23.08	0.78	0.25	1.21	<0.10
Gatrasula	10	2.5	2.0	20	0.67	0.21	0.36	<0.10
Gaurava	10	1.9	0.8	57.89	0.94	0.3	3.68	<0.01

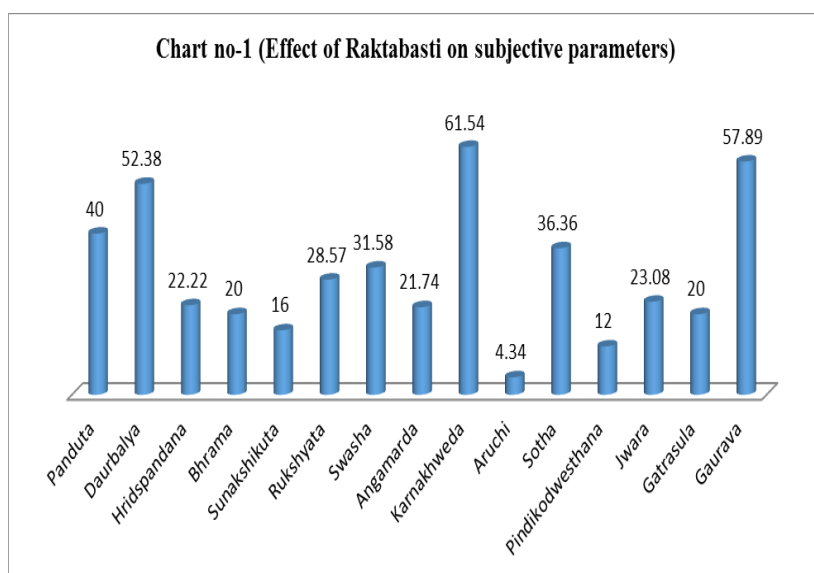


Table- 2: Effect of Raktabasti in objective parameters (Group-A).

Sign & Symptoms	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
	BT	AT					
HB%	5.82	8.02	37.8	1.23	0.39	5.67	<0.001
TRBC	3.71	4.23	14.02	0.38	0.12	4.28	<0.01
MCV	62.26	73.80	18.54	12.63	4.0	2.89	<0.02
MCH	15.83	19.21	21.35	2.74	0.87	3.90	<0.01
MCHC	25.93	26.13	0.77	3.09	0.9	1.33	<0.10
ESR	39.6	32.1	18.94	7.94	2.51	2.98	<0.02
PCV	23.6	29.2	23.73	4.72	1.49	3.75	<0.01
TIBC	352	390	10.8	27.7	12.4	3.06	<0.02
S. Iron	35.33	31.33	13.20	5.50	2.46	1.89	<0.10

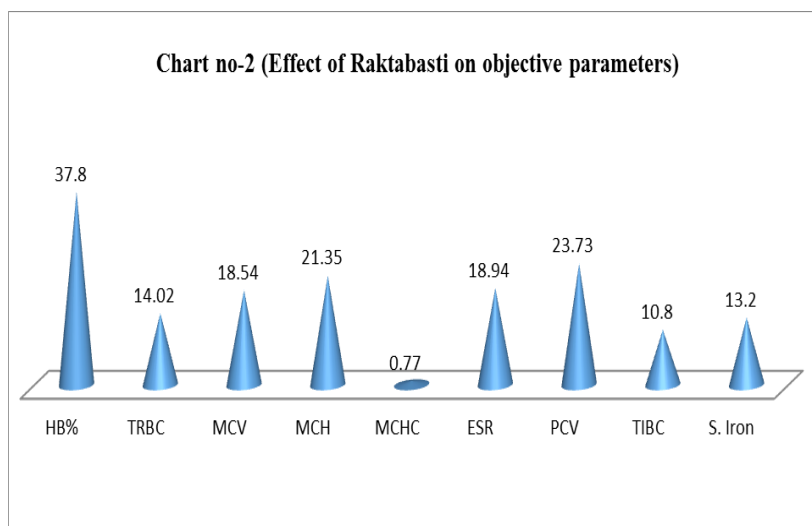


Table 3: Effect of Vasadi Kwath Ghanavati on subjective parameters (Group B).

Sign & Symptoms	N	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
		BT	AT					
Panduta	10	2.8	2.3	17.86	0.5	0.16	3.16	<0.02
Daurbalya	10	2.4	1.9	20.83	0.67	0.21	2.36	<0.05
Hridspandana	8	1.4	0.6	57.14	0.87	0.28	2.90	<0.05
Bhrama	8	1.2	0.6	50	0.66	0.21	2.86	<0.05
Sunakshikuta	3	0.2	0.1	50	0.3	0.09	1.05	<0.10
Rukshyata	5	0.9	0.3	66.66	0.92	0.29	2.07	<0.10
Swasha	10	1.7	1.4	17.65	0.46	0.15	2.07	<0.10
Angamarda	9	1.5	0.6	60	0.94	0.30	3.01	<0.02
Karnakhweda	8	1.0	0.7	30	0.46	0.15	2.07	<0.10
Aruchi	10	1.8	1.4	22.22	0.49	0.16	2.58	<0.05
Sotha	7	1.0	0.8	20	0.46	0.16	2.08	<0.10
Pindikodwesthana	7	1.0	0.6	40	0.66	0.21	1.91	<0.10
Jwara	8	1.1	0.5	54.55	0.92	0.29	2.07	<0.10
Gatrasula	9	1.8	1.2	33.33	0.8	0.25	2.37	≤0.05
Gaurava	5	1.0	0.5	50	0.67	0.21	2.36	<0.10

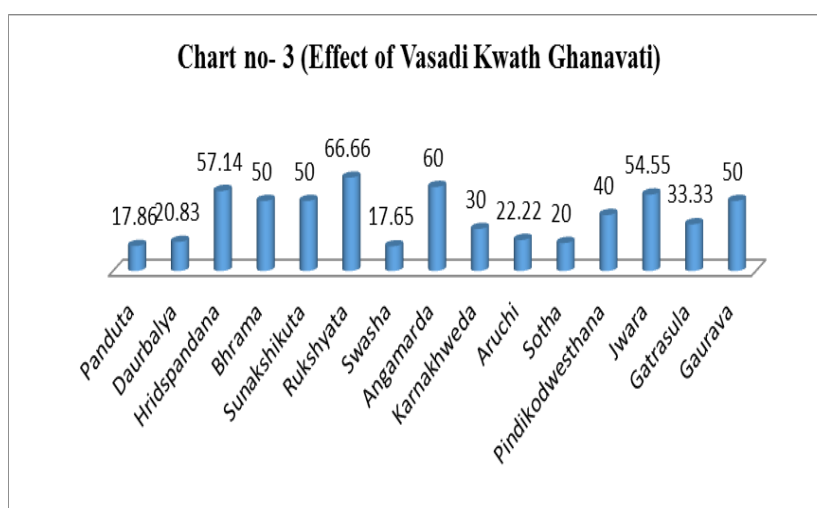


Table 4: Effect of Vasadi Kwath Ghanavati on objective parameters (Group B).

Sign & Symptoms	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
	BT	AT					
HB%	6.47	7.16	10.66	0.75	0.24	2.90	<0.02
TRBC	4.3	5.12	19.07	10.83	3.43	0.24	<0.10
MCV	62.81	70.30	11.93	17.90	5.67	1.32	<0.10
MCH	15.29	16.70	9.22	11.51	3.64	0.39	<0.10
MCHC	25.03	25.43	1.59	9.69	3.07	0.2	<0.10
ESR	32.6	37.4	14.72	5.51	1.74	2.98	<0.05
PCV	27.2	36.2	33.08	19.13	6.05	1.49	<0.10
TIBC	378	395.8	4.6	9.29	4.15	4.18	<0.001
S. Iron	34	35	2.94	2	0.89	1.11	<0.10

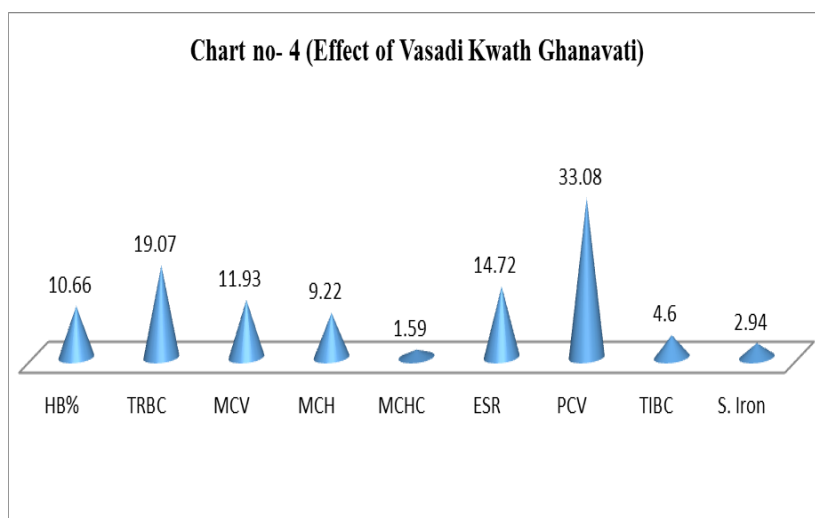


Table 5: Effect of Raktabasti and Vasadi Kwath Ghanavati on subjective parameters (Group C).

Sign & Symptoms	N	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
		BT	AT					
Panduta	10	2.7	1.3	51.85	1.02	0.32	4.34	<0.01
Daurbalya	10	2.6	1.7	34.62	0.94	0.30	3.01	<0.02
Hridspandana	10	2.0	1.4	30	0.66	0.21	2.86	<0.02
Bhrama	10	1.7	1.6	5.88	0.3	0.09	1.05	<0.10
Sunakshikuta	10	2.4	2.1	12.5	0.46	0.15	2.07	<0.10
Rukshyata	10	2.0	1.4	30	0.64	0.19	3.45	<0.01
Swasha	10	2.1	2.0	4.76	0.54	0.17	0.59	<0.10
Angamarda	10	2.0	1.2	40	1.17	0.37	2.17	<0.10
Karnakhweda	10	1.8	1.6	11.11	0.6	0.19	1.05	<0.10
Aruchi	10	1.9	1.0	47.37	1.22	0.39	2.33	<0.05
Sotha	10	1.5	0.7	53.33	0.87	0.28	2.9	<0.02
Pindikodwesthana	10	2.3	1.5	34.78	0.75	0.24	3.38	<0.01
Jwara	6	1.1	1.0	9.09	0.3	0.09	1.05	<0.10
Gatrasula	10	2.4	2.1	12.5	0.46	0.15	2.07	<0.10
Gaurava	10	2.1	1.9	9.52	0.4	0.13	1.58	<0.10

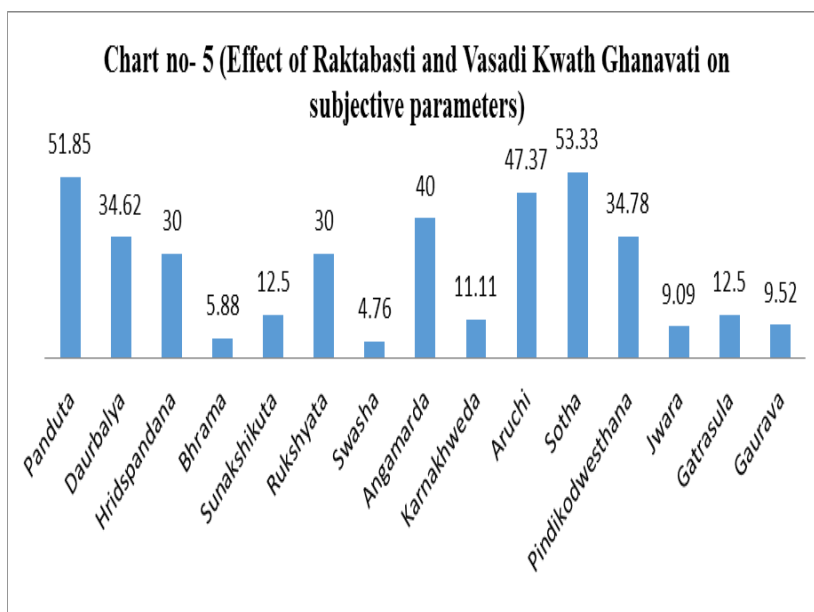
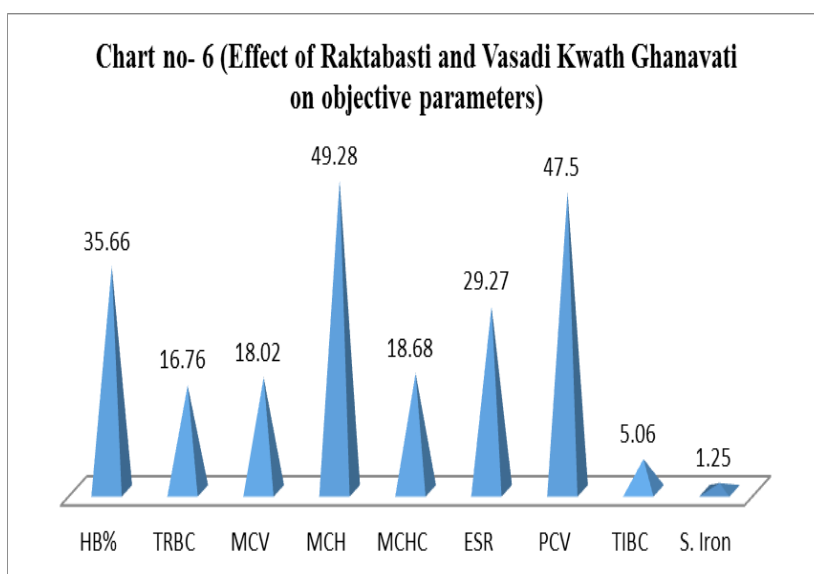


Table 6: Effect of Raktabasti and Vasadi Kwath Ghanavati on objective parameters (Group C).

Sign & Symptoms	Mean score		% of Relief	S.D. (±)	S.E. (±)	't'	P
	BT	AT					
HB%	6	8.14	35.66	1.20	0.38	5.62	<0.001
TRBC	3.58	4.18	16.76	10.6	3.36	0.18	<0.10
MCV	67.86	80.09	18.02	28.85	9.13	1.78	<0.10
MCH	16.86	25.17	49.28	18.40	5.82	1.42	<0.10
MCHC	25.42	30.17	18.68	15.03	4.76	1.01	<0.10
ESR	42.7	30.2	29.27	4.46	1.41	8.85	<0.001
PCV	24	35.4	47.5	21.7	6.87	1.66	<0.10
TIBC	324.4	308	5.06	53.9	24.1	0.60	<0.10
S. Iron	31.8	31.4	1.25	7.23	3.23	0.12	<0.10



CONCLUSION

- Patients treated with *Raktabasti* (Group A), significant relief was observed in symptoms like Panduta (40%), Daurbalya (52.38%), Hridspandana (22.22%), Sunakshikuta shotha (16%), Rukshata (28.57%), Swasa (31.58%), Angamarda (21.74%), Karnakhweda (61.54%), Sotha (36.36%), Gaurava (57.89%). Regarding Haematological findings highly significant result was found in Hb gm% (37.8%). Significant result was found in TRBC (14.01%), MCV (18.54%), MCH (21.35%), ESR (18.94%), PCV (23.73%) and TIBC (10.8%). However, results were found insignificant in treating symptoms Bhrama (20%), Pindikodwesthana (12%), Jwara (23.08%) and Gatrasula (20%). Regarding Haematological investigation insignificant result was found in MCHC (21.35%) and Serum Iron level (13.20%).
- Patients treated with *Vasadi Kwatha Ghanavati* (Group B), significant results were found in Panduta (17.86%), Daurbalya (20.83%), Hridspandanama (57.14%), Bhrama (50%), Angamarda (60%) and Aruchi (22.22%). Regarding investigations highly significant result were found in TIBC (4.6%). Results were noted significant in curing Hb% (10.66%) and ESR (14.72%).
- Patients treated with *Raktabasti* and *Vasadi Kwatha Ghanavati* (Group C) significant result were found in Panduta (51.85%), Daurbalyta (34.62%), Hridspandana (30%), Rukshata (30%), Aruchi (47.37%), Pindikodweshtana (34.78%), Sotha (53.33%). Highly significant result were found in Hb% (35.66%) and ESR (29.27%).

In assessing overall effect of therapy it was seen that –

- Overall comparison showed that best results were obtained in both the trial compounds in the form of better statistical significance and percentage relief.
- Present study reveals that the selected management have potential effect on Panduroga with the added advantage of being free from side effects.

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