

A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF DARVYADI LEHYA AND DRAKSHADI LEHYA IN PANDU ROGA W.S.R TO I.D.A**Karthika Raj¹, Susheel Shetty²**

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Article Received:17/07/2020 - Peer Reviewed:04/08/2020 - Accepted for Publication:08/09/2020**ABSTRACT**

Pandu is a *Pitta Pradhana Tridoshaja Vikara* affecting the *Rasavaha srotas* causing *Sapta Dhatu Kshaya* and *Ojokshaya*¹. The disease is characterized by *Panduvamata* and *Arohana Ayasa*. *Karnakshweda*, *Agnimandya*, *Daurbalya*, *Annadwesa*, *Srama*, *Bhrama*, *Gathrashoola*, *Arohanaayasa*, *Aruchi*, *Gaurava* etc. are the other symptoms commonly found in the patients of *Pandu*. In the Present era, Anaemia is a burning issue around the world and W.H.O Global data base 2011 reveals that, in a 120 million population, 83% people are suffering from anaemia². Present study was conducted on 60 diagnosed patients of *Pandu* who were randomly allocated with 30 each in two groups. *Darvyadhi Lehya* was given for one group and *Drakshadhi Lehya* a widely used formulation in clinical practice was given for another group. The study was conducted in 60 subjects for a period of 30 days. Clinical features and haematological parameters were documented before and after the treatment. The results of the study showed that, a statistically significant difference was not seen between the effect of *Darvyadi* and *Drakshadilehya* in *Pandu roga*.

Keywords: *DrakshadhiLehya, DarvyadhiLehya, Pandu Roga, Anaemia.*

INTRODUCTION

In *Ayurveda*, *Panduroga* is considered as an independent disease with its own specific *Nidana, Purvarupa, Rupa, Samprapti* and *Chikitsa*. *Acharya Charaka* has mentioned *Rakthalpatha* in *Pandu Roga*³. So, *Pandu Roga* can be compared to Anaemia. Anaemia is a condition in which Hb% becomes lower than the normal. In the Present era, Anaemia is a burning issue around the world, it affects all age groups but the most vulnerable are preschool age children, pregnant women and non pregnant woman of child bearing age⁴. Globally anaemia affects 1.62 billion people which correspond to 24.8% of the population. The highest prevalence of anaemia exists in the developing world, where its causes are multifactorial³. Two *Lehya yogas* have been selected here since according to *Ayurveda Pandu* is a *Pitta Pradhana Tridoshaja Vikara* affecting the *Rasavahasrotas* causing *Saptha dhatu kshaya* and *ojokshaya*. In *Pandu roga* the *ushna guna* increases, the *pitta* is further vitiated causing *kshapana* of *rasa prasada bhaga*, which does *poshana* of *Raktha dhatu*. This induces *rokshya bhava* in the individual. As *rasa dhatu* is *Sneha pradhana*, *Sneha* would be an apt choice here which would bring about the increase of *uttarothra saptha dhatus*⁵.

Materials and Methods

Source Of Data :-

- **Drug Source:-** From the source of procurement.
- **Drug Preparation:-** Dept of Rasashastra and Bhaishajya Kalpana, Alva's Ayurveda Medical College, Moodbidri.

Sample Source:- OPD and IPD of PG studies of Kayachikitsa, Alva's Ayurveda Medical College Hospital, Moodbidri.

Method of Data Collection:-

a) Selection of patients:- Irrespective of gender, religion, occupation, marital status, socio-economic status and education status.

- **Sample size :-** 60 participants
- **Grouping :-** 2 arms (A and B)
- **Number:-** 30 in each arm.

- **Study design:-** Randomized controlled clinical study.

- **Blinding :-** Single blind

- **Method Of Sampling:-** Lottery method.

b) Diagnostic criteria :-

1. *Panduta* and *Arohana Ayasa* with or without other *Lakshanas* of *Pandu Roga*.
2. Haemoglobin percentage between 8-12gm% in Males and 7-11gm% in Females.
3. Microcytic or Normocytic, Hypochromic RBCs in blood smear picture.

c) Inclusion Criteria :-

1. Patients between 16-60 years of age.
2. Patients having *Pratyatma Lakshanas* of *Pandu Roga - Panduta* and *Arohana Ayasa* with or without other *Lakshanas* of the disease.
3. Haemoglobin percentage between 8-12gm% in Males and 7-11gm% in Females.
4. Blood picture presenting with either microcytic hypochromic or normocytic hypochromic anaemia.

d) Exclusion Criteria: -

Patients who do not give consent for treatment.

- Patients suffering from infectious diseases.
- *Pandu Roga* resulting from acute or chronic blood loss.
- Patients with systemic disorders that would interfere with the course of the study.
- All types of secondary, congenital, hereditary anaemia.
- Pregnant and lactating mothers are excluded.

e) Intervention:-

Group A: *Drakshadi Lehya* 10gm before food, twice a day for 30 days, *Anupana: Ushnodhaka*
Group B: *Darvyadi Lehya* 10gm before food, twice a day for 30 days, *Anupana: Ushnodhaka*

f) Observation Period:-

Patients will be assessed for the clinical parameters before treatment, on 16th day and after treatment. Laboratory parameters will be assessed before

treatment and on 31st day after treatment.

g) Assessment Criteria: -

Subjective (Clinical)

1. *Panduta*
2. *Arohana Ayasa*

Objective (Laboratory)

Hb%; RBC Count; PCV; Blood Picture; MCV

h) Statistical Methods

Assessment of the condition will be done based on detailed proforma adopting standard scoring methods of subjective and objective parameters and will be analysed using student 't' test.

Observation & Result

Observation

In the present study highest incidence (51.6%) was in the age group of 16-25yrs and the lowest incidence (5%) was in the age group of 46-55years. Which represents the onset was more in youth and middle aged. According to gender Panduroga was highest (78.3%) in females and lowest in Males (21.6%). According to Menstrual History Regular periods were observed in 63.8%, irregular periods were observed in 29.78%, Menopause was observed in 6.38% patients. However, women with normal menstruation, if don't take sufficient Iron containing foods may develop IDA. Anaemia also leads to the deterioration of general health leading to leucorrhoea⁶. In Diet observed that 91.6% patients were having mixed diet and 8.3% patients were consuming veg diet. According to Dietic habits, it was observed that most of the people followed *Vishamashana* 40%, *Adhyashana* was 31.6%, *Anashana* 20% and *Samashana* 8.3%. *Vishamashana* and *Adhyashana* causes *Agnimandya* which later leads to *Dhatwagnimandya* which leads to *Dhatushaithilya* or *dushti* which causes *Doshaprakopa* which is the root cause of disease⁷. *Anashana* causes *agni vriddi* which effects the *dhatu*s, thus could indirectly be a reason for *Raktalpatha* causing *Pandu Roga*. According to *Rasa in Diet* *Katu pradhana ahara* was taken more frequently by about 71.6%, *Madhuraaharas* 61.6%, *Amla aharas* 36.6%, *Lavanaaharas* 28.3% and *Tikta, kashaya rasas* were least taken that is

13.3%. *Katu, Amla* and *Lavana Rasa* have already indicated as *Nidanas* of *Pandu Roga* and they directly vitiate *Pitta* and *Rakta* and lead to *Dushana* of *Raktha*, Causes *Shaithilya* in *Dhatu*⁸. In *Agni*, it was observed that *Mandagni* was present in highest incidence 35%, *Samagni* 26.6%, *Vishamagni* 23.3% and *Tikshnagni* was least in number 15%. Most of the patients had *Mandagni*. *Pandu* is also an *agnimandya vikara*. According to *Shareera Prakriti* The *deha prakriti* of the patients were also assessed, after considering their major physical, psychological and behavioural features. It was observed that *Vatakapha* 38.3%, *Vatapitta* 46.6%, *Kaphapitta* 10%, *Pittakapha* 5% patients were observed while assessing the *Prakriti*. So, along with the assessment of *prakriti* consumption of *Nidana* as per classics could have lead to causation of *Pandu Roga* in the person⁹. In *Vyayama Shakthi*, most people showed *Madhyama Vyayama Shakthi* that is 86.6%, *Avara* 10% only a little percentage showed *Pravara Vyayama Shakthi* of 3.3%. This is noted by the cardinal features '*Arohanaayasa*' seen in all patients suffering from *Pandu roga*¹⁰. Among the varieties of *pandu* most belonged to the group of *Vataja Pandu* that is about 50%, *Kaphaja Pandu* is about 35%, *Pittaja Pandu* is about 15% and *Sannipataja Pandu* is nil. This was assessed purely on the *Lakshanas*.

Results

Table 1: Statistical Result of Individual Assessment Criteria

Table2: Overall Relief Observed in Patients Of Group A And B

DISCUSSION

In this study, we have seen 74.200% and 83.61% of relief of *Panduta* in Group A and Group B respectively. The results were found to be highly significant in two groups that is $p < 0.001$. And in this study we have seen 76.50% and 78.82% of relief of *ArohanaAyasa* in Group A and Group B respectively. The results were found to be

highly significant in two groups that is $p < 0.001$.
Laboratory Parameters: Among the laboratory parameters, maximum increase in Hb was recorded in two female patients of Group B. The Hb before treatment 9.7gm% and after treatment was 12. There was an increase of 2.3gm%. Rest of the values falls in range between 0.3gm% and 1.8gm%. Statistical significance of Hb, PCV, MCV was $p < 0.001$, except for Blood picture and RBC that was obtained as $p = 0.001$ and $p = 0.103$.

In Group A 3 patients had showed an Hb of 9gm% which after treatment had increased by 2 units. Rest of the values fell in between 0.4gm% and 1.7gm%. In Group A statistical significance was seen in Hb, PCV, MCV, RBC, Blood picture, to be $p < 0.001$.

In both group blood picture has not shown highly significant result, since the period of consumption of drug that is 30 days is not sufficient for producing changes in the structure of RBC. But finally depending upon all other variables, both *Drakshadi* and *DarvyadiLehya* were effective in treatment of *Pandu Roga* and statistical difference in treatment effect were seen between the two.

Discussion on the result of treatment in Group A and Group B: *Drakshadilehya* and *Darvyadilehya* after treatment showed statistically significant result. By the 16th day itself clinical parameters had responded, though the lab parameters were only done on 31st day for assessment.

Discussion on the comparative effects of treatment in Group A and Group B :

The result obtained after treatment in both groups was compared by Unpaired t test. The test revealed that there is no significant difference between the effect of treatment in both groups.

Overall Group wise relief on 31st day of treatment: Marked relief was observed in 12 patients in Group A and 13 patients were found with Marked improvement in Group B. Moderate relief was observed in 18 patients in Group A and 17 patients were found with

Moderate improvement in Group B.

Adverse Effects: There was no adverse effects were noted during the treatment.

CONCLUSION

In *Ayurveda*, *Pandu roga* is a considered as an independent disease with its own specific *Nidana*, *Purvarupa*, *Rupa*, *Samprapti* and *Chikitsa*. In the present clinical trial, Group A and Group B result shows that the effect of both treatment produced highly significant results for subjective parameter like *Pandutha* and *Arohanaayasa* as well as for objective criteria like Hb%. Blood picture, PCV, MCV and RBC. The clinical results and laboratory results obtained, were found to be statistically significant at $p < 0.001$ except for RBC and Blood picture in Group B, were p value was greater than 0.05, since it's difficult to have changes in blood picture in duration of 30 days. Hence the conclusion drawn was, there was there was no significant difference in the effect of *Darvyadi* and *Drakshadilehya* in *Pandu roga*.

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Table 1: Statistical Result of Individual Assessment Criteria

Assessment Criteria	Group	BT mean	AT mean	M.D	%	S.D	S.E	t Value	p Value
ArohanaAyasa	A	1.833	0.433	0.433	76.50	0.621	0.113	12.339	<0.001
	B	1.700	0.367	0.367	78.82	0.479	0.0875	15.232	<0.001
Pandutha	A	1.667	0.433	0.433	74.20	0.568	0.104	11.886	<0.001
	B	1.633	0.267	0.267	83.61	0.490	0.0895	15.272	<0.001
Hb	A	10.520	11.672	11.672	10.93	0.674	0.123	-9.358	<0.001
	B	9.980	11.397	11.397	14.12	0.680	0.124	-11.419	<0.001
PCV	A	35.280	41.543	41.543	17.74	4.313	0.787	-7.954	<0.001
	B	34.759	40.273	40.273	15.8	4.570	0.834	-6.610	<0.001
MCV	A	69.300	74.813	74.813	7.95	3.008	0.549	-10.041	<0.001
	B	69.093	73.687	73.687	6.64	3.508	0.641	-7.172	<0.001
Blood picture	A	1.700	1.100	1.100	35.29	0.621	0.113	5.288	<0.001
	B	1.233	0.933	0.933	24.39	0.466	0.0851	3.525	= 0.001
RBC	A	4.596	5.437	5.437	18.3	0.404	0.0738	-11.397	<0.001
	B	4.483	6.796	6.796	51.56	7.535	1.376	-1.682	= 0.103

Table 2: Overall Relief Observed In Patients Of Group A And B:

Remarks	Group A	%	Group B	%
Marked relief Above 75%	12	40	13	43.3
Moderate relief 50-74%	18	60	17	56.6
Mild relief 25-49%	0	0	0	0
No relief Below 24%	0	0	0	0

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