

THE STUDY OF EFFICACY OF NISHALOHAM IN MANAGEMENT OF PANDU VYADHI (ANEMIA)

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ABSTRACT

In Ayurveda, Pandu Vyadhi is mentioned by Acharyas & explained in detail its sign & symptoms. Pandu vyadhi is mentioned under different clinical manifestations which occurs due to rasavaha strotas dushti by Charak (Raktavaha strotas - Sushrut) characterized by panduta, dourbalyata, aruchi, shwasa, etc. According to Modern Science, Anemia is the condition in which the haemoglobin level in the body decreases, causing breathlessness, pallor, etc. with major complications. Estimate suggests that over one third of the population of world suffers with Pandu (Anemia). According to WHO, prevalence rate of Anemia in India is 50-60%. So there is need to know the importance of Pandu vyadhi. The further article will elaborate the study

of efficacy of nishaloham in the management of Pandu vyadhi.

KEYWORDS: body decreases, causing breathlessness, pallor, etc.

INTRODUCTION

Our ancient Acharyas have described a variety of diseases in details, with a crystal clear idea regarding each one of them with respect to its nidana, samprapti and chikitsa.

Out of these diseases, "Pandu" is one of the major problem in India. This disease is found abundantly in low or middle socio-economic class. It is seen that nutritional deficiency is the major etiological factors of this in the developing countries like India. The prevalence of the pandu can be attributed to altered dietary habits, frequent hoteling, bakery products, various types of fast foods, the food products lacking proteins, minerals, carbohydrates, vitamins, lack of exercise, mental and physical stress.

The pathogenesis of pandu has been explained in ayurveda in the form of samprapti in which vitiation of tridosha is the root cause.

These vitiated doshas exhibit symptoms like pallor of skin, nails, conjunctiva of eyes, general weakness, anorexia, dyspnoea etc. indriyas are unable to carry out their proper functions. There is kshaya of rasa, rakta, dhatu. Collectively the above process finally causes the disease pandu.

The cardinal feature of pandu is “discoloration of skin” i.e. pallor. Other symptoms include pallor of nails, conjunctiva of eyes, general weakness, loss of appetite, indigestion and swelling all over the body.

According to the modern science the sign pallor is primarily accounted to decreased level of hemoglobin which is defined as anaemia. Considering the above fact one casually correlates pandu with anaemia.

Aim:- Study of the efficacy of Nishaloham in management of Pandu Vyadhi.

Objectives:- 1. To study the Ayurvedic literature of Pandu vyadhi as per Samhitas.

2. To compare the effect of Trial Drug with Ferrous Sulphate.

MATERIAL AND METHODS

LITERATURE:-The literature review of Pandu Vyadhi was collected from available Ayurvedic Samhitas & various texts. The modern part was referred from modern texts, various journals, articles magazines & also through net surfing.

MATERIAL

1. Trial Drug –Nishaloham

Nishaloham was prepared as given in referral text.

All raw drugs in Churna form were purchased and were subsequently authenticated and standardized as per standard procedure before put to use.

PREPARATION OF NISHALOHAM

Details procedure followed to make the “NISHALOHAM” is as below:

Reference: Bhaishajya Ratnavali 12/37.

Nishaloham was prepared at Late Prin. B. V. Bhide foundation, Pune.

Table 1: Ingredients in Nishaloham.

Sr.No.	Dravya	Latin Name	Quantity
1.	Daruharidra	<i>Berberis aristata</i>	1 part
2.	Haritaki	<i>Terminalia chebula</i>	1 part
3.	Amalaki	<i>Emblica officinalis</i>	1 part
4.	Bibhitak	<i>Terminalia belerica</i>	1 part
5.	Haridra	<i>Curcuma longa</i>	1 part
6.	Kutaki	<i>Picruhiza kurroa</i>	1 part
7.	Loha Bhasma		6 part

Procedure

1. First two drugs mentioned above were taken in Khalva yantra. & were thoroughly mixed.
2. After mixing above two drugs third drug were added as simultaneously added all the drug & thoroughly mixed all the drugs.
3. The drug was prepared by standard procedure to use in control group.
4. Standardization of final product was done.
5. Final product was packed in air tight container under hygienic condition.

Standardization of Final Product (NISHALOHAM)

To ensure the quality of preparation, It is necessary to standardize the “NISHALOHAM” before using for the treatment. The study was done at ISO certified Pharmacy.

The test such as Foreign matter Total Ash, Acid insoluble ash, Alcohol soluble extract, Water soluble extract, Moisture Content etc were carried out for ensuring the quality preparation of “NISHALOHAM”. Certificate indicating the results of above test is enclosed with the dissertation in annexure.

2. Control Drug: Ferrous Sulphate Tablets

Ferrous Sulphate tablets which is proved for the management of Pandu Vyadhi were purchased from the market of reputed brands to ensure that they are being manufactured as per GMP. These were given to the patients belonging to group B.

CLINICAL TRIAL

Place of Work:- Screening and selection of patients was carried out at O.P.D of Kayachikitsa Dept. of our college

Study Type:- Open Randomized Control Clinical Trial

Study Design:- 60 subject fulfilling the inclusion criteria of Pandu Vyadhi were selected randomly. They were divided into two equal groups.

Group A (Trial group) -**30** cases – Trial with **Nishaloham**.

Group B (Control group) -**30** cases – Control with **Ferrous Sulphate**.

After proper scrutiny, patients were registered in the study. She/he was explained about the trial and effects of the drug before administration and written consent in suitable language to the patients was taken.

Selection Of Patients

a) Inclusion criteria

1. Gender = male / female.
2. Age = 16 to 60 yrs
3. Patients having Samanya lakshanas of Pandu Vyadhi.
4. Hb % = 5 to 9.5 gm/dl

b) Exclusion Criteria

1. Pandu vyadhi associated with other vyadhi as like kamala, halimak.
2. Pregnancy.
3. Anemia associated with other prediagnosed diseases like liver Cirrhosis, ascitis, CCF, HIV, TB, Leprosy, Malignancy etc.

Assessment Parameter

a) Subjective Parameter

1. Panduta
2. Daurbalya
3. Shramabhramanipiditta
4. Gatrashul
5. Shwas
6. Aruchi
7. Kopan
8. Shishirdveshi
9. Nidradhikya
10. Pindikodveshtan

b) Objective Parameter

1. Haemogram:- But Haemoglobin will be the main criteria. Should be done before, at 15th day & After treatment.

Assessment Criteria

Table 2: Criteria For Assessments.

Lakshan	No (0)	Mild (1)	Moderate(2)	Severe (3)
Panduta	Absent	Pallor of conjunctiva & mucus membrane	Pallor of conjunctiva mucus membrane & skin	Pallor of conjunctiva, mucus membrane, skin & palmer creases
Daurbalya	Not Present	After heavy work, relieved soon & tolerate	After Moderate work relieved later & tolerate	After little work relieved later but beyond tolerate
Shrama-bhramani-piditta	No Bhrama	Bhrama on walking with speed	Bhrama on walking without speed	Bhrama on standing
Gatrashul	Absent	Can do work without discomfort.	Can do work but feels discomfort.	Cant able to do work.
Shwas	Absent	Absent on unaccustomed work	On accustomed work	Even at rest
Aruchi	Normal instinct of taking food	Person dislikes the taste of the food.	Person dislikes the taste of the food & eats in small quantity.	Though the person is hungry he had dislike for food due to
				which he has fear to take food
Kopan	Absent	Aggressiveness with reason but calm immediately	Aggressiveness with reason but take time to calm	Aggressiveness without any reason
Shishir – dveshi	Absent	Cold intolerance on touching ice	Cold intolerance on touching chilled water	Cold intolerance on touching cold water
Nidradhikya	Regular sleep	6 to 8 hour sleep	8 to 10 hours sleep	More than 10 hours sleep
Pindiko – dveshtan	Absent	After heavy work	After moderate work	At rest also.

Case Record Form

- Cases were recorded on specially prepared case record form.
- Treatment to the patient was given for 1 month.

Table 3: Dose & Duration.

GROUPS	SAMPLE SIZE	INTERVENTION	ANUPANA	DURATION
Trial Group	30	Nishaloham 400 mg churna BID after meal.	Madhu & Ghrita (Visham Praman)	30 Days
Control Group	30	Ferrous Sulphate 200 mg capsule BID before meal.	Water	30 Days

Follow Up

- Follow up of each patient was taken at the interval of 15 days for about 1 month or earlier if required at the time of clinical assessment.
- Conclusion was drawn from the data available.
- On the day of follow up overall assessment with subjective and objective criteria will be done as follows:

Table 4: Follow up Table.

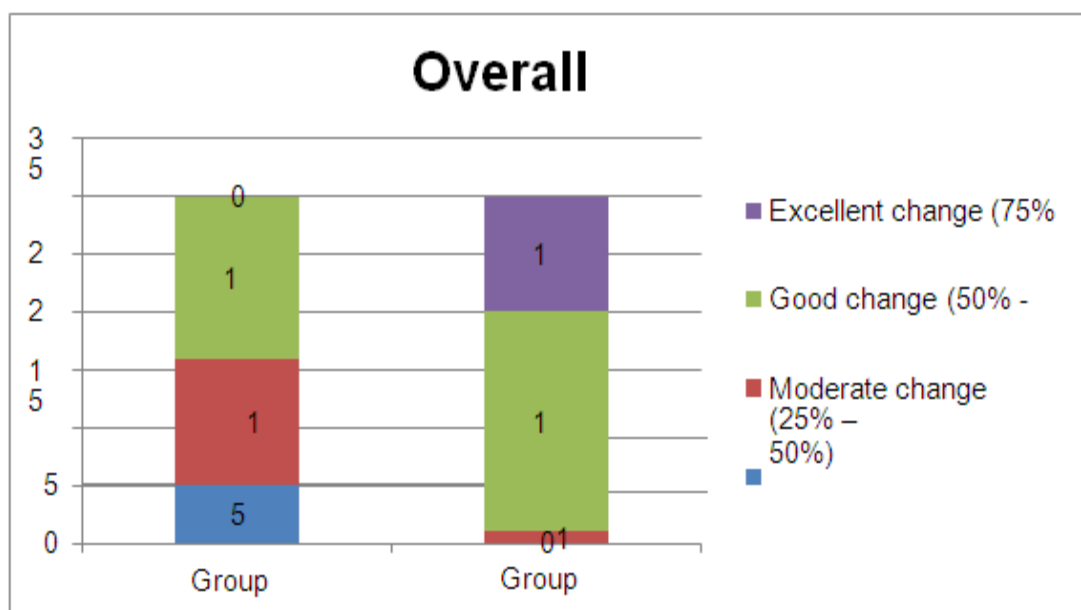
	Before Treatment	At 15 th day	After Treatment
Hb%			

OBSERVATIONS AND RESULTS

Overall Effect (Patient wise)	No. of parameters			
	Group-A	%	Group-B	%
Unchanged (<25%)	5	16.67	0	00.00
Moderate change (25%–50%)	11	36.67	1	03.33
Good change (50% -75%)	14	46.67	19	63.33
Excellent change (75% +)	0	00.00	10	33.33

For group A, out of 30 patients, 14 patients (47%) improved with good change, 11 patients (37%) improved with moderate change and 5 patients were unchanged (17%).

In group B, 10 patients (33%) were excellently improved 19 patients were improved with good change (63%) while 1 patient (3%) showed moderate change.



Graph 18: Overall Effect of Therapy.

CONCLUSION

1. Both Nishaloham & Ferrous Sulphate are effective in the treatment of pandu.
2. Maximum incidences observed were females that also housewives. & the age group were 51-60 Years
3. In the present study occurrence of pandu roga in Pitta-vattaj prakruti were highest. Hence it shows predominance of pitta & vata doshas.
4. Patients having mandagni are largely prone for the development of the disease.
5. Panduta, Gatrashul, Shwas, Aruchi, Nidradhikya & Pindikodveshtan shows significant relief by use of Ferrous sulphate.

Therefore we can conclude that Ferrous Sulphate is more effective than Nishaloham in the management of pandu.

6. The drug Nishaloham used is cost effective, easy to prepare & easy to take.
7. No side effects are seen in using Nishaloham.

MODERN REVIEW: ANAEMIA

The term 'Anaemia' is an ancient one and can be found in the Carpus Hippocraticus. It literally means 'without blood' and is derived from Greek 'a' or without and 'haima' or blood.

James Combe, an Edinburgh Physician (1824), first used the term Anaemia in English.

WHO in a recent article XXXiv, W.H.O. has described Anaemia as follows: Anaemia is a condition in which the number of red blood cells (and consequently their oxygen-carrying capacity) is insufficient to meet the body's physiologic needs.

Specific physiologic needs vary with a person's age, gender, residential elevation above sea level (altitude), smoking behaviour, and different stages of pregnancy. Iron deficiency is thought to be the most common cause of anaemia globally, but other nutritional deficiencies (including folate, vitamin B12 and vitamin A), acute and chronic inflammation, parasitic infections, and inherited or acquired disorders that affect haemoglobin synthesis, red blood cell production or red blood cell survival, can all cause anaemia.

Haemoglobin concentration alone cannot be used to diagnose iron deficiency. However, the concentration of haemoglobin should be measured, even though not all Anaemia is caused by iron deficiency. The prevalence of anaemia is an important health indicator.

Definition of Anaemia

(Textbook of Medical Physiology -Guyton, 11th Edition):- Anaemia means deficiency of hemoglobin in the blood, which can be caused by either too few red blood cells or too little hemoglobin in the cells.

W.H.O.'S Hemoglobin Thresholds used to define Anemia: (1gm/dl=0.6206mmol/L)

W.H.O. Expert Committee has defined Anemia as a condition in which the concentration of hemoglobin is below the lower limit of normal for given age and sex.

Table 8: W.H.O's Hemoglobin thresholds.

Age/Gender Group	Hb Threshold (gm/dl)	Hb Threshold (mmol/L)
Children (0.5-5 yrs)	11.0	6.8
Children (5-12 yrs)	11.5	7.1
Teens (12-15 yrs)	12.0	7.4
Women(Non pregnant)	12.0	7.4
Women (pregnant)	11.0	6.8
Men (15 yrs)	13.0	8.1

Anemia is usually classified according to degree as follows:

Degree of Anemia

Hb levels

- | | |
|-------------|----------------------------|
| 1) Mild | Hb above 9 gm/100ml |
| 2) Moderate | Hb between 9 to 6 gm/100ml |
| 3) Severe | Hb below 6 gm/100ml |

Exception in the use of hemoglobin, hematocrit and RBC's measurements in defining Anaemia are as follows:

1. Pregnancy.
2. Acute blood loss.
3. Burns.
4. Emphysema or one with right to left cardiac shunt.
5. Dehydration (shows high Hb gm% than actual).
6. Hypothyroidism (shows low Hb gm% level)

Anaemia is the most common disorder of the blood. These several kinds of Anaemia are produced by a variety of underlying causes. It can be classified in a variety of ways, based on the morphology of RBCs, underlying etiologic mechanisms, and discernible clinical spectra, to mention a few. Of the two major approaches to diagnosis, the "kinetic" approach involves

evaluating production, destruction and loss, and the "morphologic" approach groups Anaemia by red blood cell size.

The morphologic approach uses a quickly available and low-cost lab test as its starting point (the MCV). On the other hand, focusing early on the question of production may allow the clinician to expose cases more rapidly where multiple causes of Anaemia coexist.

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