

**EFFECT OF PITTA PRAKOPA ON BLOOD PROFILE IN SHARAD
RUTU BY THE LAW OF ASHRYASHRYI BHAV****Prof. Dr. Bande Uttam Kashinath***

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ABSTRACT

Human body is made up of Dosha, Dhatu & Mala.

Dosha conducts all body functions, Dhatu builds structure of body, provides nutrition, & Mala maintains healthy conditions of human body on getting elimination out of body. Just like Soma, sURY, and Anilasupport this world by functions Visarga, Adana and Viksheparespectively Kapha, Pitta and Vata support human body with their respective functions. The interrelationship of Dosha & Dhatu can be understood by their similarity in the Panchabhautika composition. For Pitta-Rakta both Gunas & Karmas are similar thus giving the

Ashryaashryibhav (law of association).

KEYWORDS: Pittaprakopa, Sharad Rutu, Ashryashryibhava.**INTRODUCTION**

Human body is made up of Dosha, Dhatu & Mala.

Dosha conducts all body functions, Dhatu builds structure of body, provides nutrition, & Mala maintains healthy conditions of human body on getting elimination out of body.

Just like Soma, Surya, and Anila support this world by functions Visarga, Adana and Vikshepa respectively. Kapha, Pitta and Vata support human body with their respective functions. A person who is having balanced Dosha, Agni & physiologically functioning Dhatu, Mala on getting elimination properly, well functioning body processes & whose mind, soul, and sense are full of bliss is called healthy person. The interrelationship of Dosha & Dhatu can be understood by their similarity in the Panchabhautika composition. For Pitta – Rakta both Gunas & Karmas are similar thus giving the Ashryaashryibhav.

Hence their interrelationship is prime importance. This interrelationship is called Ashryashryibhav.

१. आश्रयमिति समान गुणस्थानम् । (चक्रपाणी च.सु.१२)

२. तत्रास्थिन स्थितो वायुः पितं तूस्वेद रक्तयोः ।

तेनेशामाश्रया श्रयिणां मिथः ॥

श्लेष्मापेशेषु यदेकस्य तदन्यस्य वर्धनक्षपेणोषधम् ॥ (अ.ह.सु.११/२६-२७)

Derivatives Ashrya means residence (shelter) ashryi means tenant ie one who is seeking shelter in this study.

Sr.No.	Ashrya	Ashryi
1.	Rakta (Blood)	Pitta Dosha

In human body Pitta Dosha resides in Rakta Dhatu ie in blood. In Sharad Rutu (autumn season) ie during the period of 15 sept. to 15 Nov. Pitta vitiation occurs. Due to climatic changes. Ultimately it affects Rakta Dhatu (Blood) & Raktadhatu vridhhi takes place. So the effect of Pitta prakopa (vitiation) on Rakta Dhatu ie on blood profile by the law of Ashrayasharyi Bhava can be assessed in healthy individuals as well as in diseased individuals.

Status of Pitta Dosha is different in different Rutu such as in Varsha. Rutu (15 may to 15 July) it is in chaya condition (increased but within normal limit), in Sharad Rutu (15 July to 15 Sept.) is in prokopa condition (increased beyond the normal limit) and in Hemant Rutu (15 Nov. To 15 January) is in prashama condition (comes again in normal limit).

The proportion of Pitta Dosha is more in Sharad Rutu in human body than Varsha Rutu (rainy season) & Hemant Rutu (early winter season). In this study it is observed that does Pitta vitiation affect Rakta Dhatu (blood profile) or not? To evaluate effect of Pitta prokopa on haematology or blood profile, individuals were examined clinically lakshans (signs & symptoms) of Pitta prokopa & Rakta Dhatu vridhhi which are mentioned in basic Ayurvedic samhitas and along with this laboratrical investigations with relation to 15 blood tests were conducted which are described in modern text books of physiology. 100 healthy volunteers were taken under consideration. Were there any deviations in subjective & objective parameters were assessed statistically?

AIM AND OBJECTIVES

To evaluate the effect of Pitta prakopa in Sharad Rutu on blood profile (Rakta Dhatu) by law of Ashryaashryai bhav on the basis of modern medical science is the main aim of this study.

OBJECTIVES

- 1) To study Pitta prakopa, & Rakta Dhatu vriddhi according to concept of Ayurveda.
- 2) To study blood profile according to concept of modern medical science.
- 3) To study Pitta prakopa, Rakta Dhatu vriddhi as per Ayurvedic text criteria by clinically.
- 4) To study effect of Pitta prakopa on blood profile in Sharad Rurtu by laboratrical investigation.
- 5) To evaluate the significance of Raktamokshan (blood letting) camps & justify how the blood donation camps were useful or harmful for society which was organized probably in Sharad Rutu especially in Ayurvedic medical colleges.
- 6) To check out the efficacy of vitiating Pitta containing Rakta (blood) which was collected for transfusion purpose in N.S.S blood donation camps weather it was beneficial or harmful to human society.

SOURCE OF DATA

Apparently healthy 100 volunteers randomly selected from campus of Yashwant Ayurvedic college & Yashwant charitable hospital, Kodoli. Tal: Panhala Dist: Kolhapur _416114 (M.S) India.

COLLECTION OF DATA

MTERIALS & METHODS

MATERIALS

A) LITERARY STYDY MATERIALS

- Charak samhita with its commentary,
- Sushruta samhita with its commentary,
- Astang hrudaya with its commentary,
- Modern medical texts books of Physiology,
- Journals, articles, internet through various websites.

B) AESSMENTS TOOLS

- Case Performa, Questionnaire, Prakruti assessment chart
- Lab instruments:

Viscometer, Ph meter, Electronic weighing scale, Auto blood analyzer, Colorimeter, Biochemical test machine, Graph pad insta - 3 software version no 3.10,32

METHODS

Study design: observational study

Sample size

The present study was conducted on apparently healthy 100 volunteers. Without detection of Prakriti volunteers were selected. Selection of volunteers was made randomly.

Sample form

Students & employees of a ayurved college and post graduate research training centre & Ayurved allopathic hospital.

Sample technique

Convenient sampling technique.

Place of work Ayurved College and post graduate research training centre, charitable Ayurved allopathic hospital,

INCLUSION CRITERIA:-As per [www.redcross blood.org.in](http://www.redcrossblood.org.in)

1. **Age:** – 18 -60 years
2. **Sex:** – both sex [male & female]
3. **Hb:-** [not less than]12.5gml/100ml for female & 13.5 gm/100ml for male
4. **PR:-** 50-100l min [without irregularities]
5. **BP:-** 100-180/50-100 mm of hg
6. **Temp:-** normal [oral temp not exceed than 37.5
7. **Body weight:-** Not less than 45 kg & above(13%of the total volume of body blood can donate blood).
8. **Healthy condition:** – volunteers should be healthy state of mind & body.

EXCLUSION CRITERIA: A same donor rejection criterion was applied for the exclusion of volunteer for this research project.

1. **Age:** – Below 18 & above 60 years
2. **Haemoglobin:-** Less than12.5gm/100ml for female & less than 13.5 gm/100ml for male.

- 3. Pulse rate:-** Below 50/min & above 100/min [with irregularities]
- 4. Blood Pressure:-** Above 100-180 mm of hg / below 50-100 mm of hg.
- 5. Temperature:-** Oral temp. below & not exceed than 37.5 °C (core temp of body).
- 6. Body weight:-** less than 45 kg

OBJECTIVE ASSESSMENT CRITERIA: It was mainly related to blood (Raktapareekshan) tests as

1) HB estimation. 2) RBC count. 3) WBC count. 4) DLC count. 5) Platelet count. 6) PCV (Packed cell volume). 7) MCV (Mean cell volume). 8) MCH (Mean cell hemoglobin). 9) MCHC (Mean cell hemoglobin concentration). 10) BT (Bleeding time). 11) CT (clotting time). 12) S. Bilirubin. 13) Specific gravity. 14) Ph. 15) Viscosity etc.

SUBJECTIVE ASSESSMENT CRITERIA

Self prepared questionnaire & self graded scale was used for the assessment of subjective parameters.

1) **Sira purntva** (Fullness of vessels). 2) **Raktangtva** (Reddish appearance of body/body parts). 3) **Sharir Gaurav** (Heaviness feeling). 4) **Sharir Daha** (Burning sensation). 5) **Krodha** (Angryness). 6) **Santapa** (high body temperature). 7) **Nidradhikya** (Sleepiness/excessive sleep). 8) **Vidradhi** (Abscess). 9) **Kotha** (Urticaria /Erythema). 10) **Rakta Pitta** (Hemophilia). 11) **Dadru** (Ringworm infection of skin). 12) **Pleeha vridhhi** (Splenomegaly). 13) **Pidaka** (Boils). 14) **Tilkalaka** (Tinny blackish mole). 15) **Pittav bhasta** (Yellowish vision). 16) **Kamala** (Jaundice). 17) **Upkusha** (Gingivitis/scurvy). 18) **Daurbalya** (Fatigueless). 19) **Indriya daurbalya** (Decreased working ability of senses). 20) **Pittangtva** (Yellowish appearance of body). 21) **Piplava** (Tinny eruptions all over body). 22) **Charmadala** (warts). 23) **Kustha** (Skin disease/allied skin disease). 24) **Gulma** (abdominal Tumor). 25) **Vyanga** (Blackish patches or discoloration on face). 26) **Agnimandya** (Decreased digestion strength). 27) **Murchha** (Syncope / faint). 28) **Madatyaya** (Alcoholism). 29) **Vatarakta** (Gout). 30) **Visarpa** (Erysipelas/herpex). 31) **Papma** (Scabies). 32) **Raktamandal** (Red patches). 33) **Balhani** (Debility). 34) **Shitakamitva** (Desire of cold to eat, drink, wear etc). 35) **Nilika** (Cyanosis / Bluish patches on skin). 36) **Switra** (Leucoderma). 37) **Nidralpta** (Loss of sleep/ insomnia /scent sleep)

PLAN OF STUDY

At the beginning of field work, literary material collected from basic Ayurved samhita, modern medical book of physiology. A case Performa was prepared. With the help of this

case Performa clinical examination as well as laboratorial investigations were conducted at three times that is Chaya condition of Pitta Dosha in Varsha rutu, prakopa condition of Pitta Dosha in Sharad rutu, & prashayama condition of Pitta Dosha in Hemant rutu respectively. Data was recorded, recorded data was collected & collected data was analyzed statistically (by applying Annova test/Kruskal wallis).

OBSERVATION

Gender: out of 100 volunteers 57% belonged to male & 43% were belonged to female.

Prakriti: Out of 100 volunteers 57% Volunteers were belonged to Vata pradhan Prakriti, 28% Volunteers were belonged to pitta pradhan Prakriti, 15% Volunteers were belonged To Kapha pradhan Prakriti.

Diet: Out of 100 volunteers, 12 % were belonged to vegteiran, 88% were belonged to mixed diet.

S.E. Status: Out of 100 15% Volunteers were belonged to upper class, 45% were belonged to middle class and 40% were belonged to lower class.

RESULT

Assessment of objective criteria test table

Sr.No.	Criteria	Name of Test	significance	Statistical Tool	Inference
6	MCH	Friedman test.	0.0001	Graph pad Insta 3 Soft ware	Ext. significant
7	MCHC	Friedman test		Graph pad Insta 3 Soft ware	Ext. significant
10	DLC(M)	Friedman test	0.0024	Graph pad Insta 3 Soft ware	Very significant
13	BT	Friedman test	<0.0001	Graph pad Insta 3 software	Ext. significant
14	CT	Friedman test	<0.0001	Graph pad Insta 3 software	Ext. significant
16	Bilirubin (in Direct)	Friedman test	0.0394	Graph pad Insta 3 software	significant
17	PH	Friedman test	0.0008	Graph pad Insta 3 software	Ext. significant
18	Viscosity	Friedman test	<0.0001	Graph pad	Ext.

				Insta 3 software	significant
19	Specific gravity	Friedman test	<0.0001	Graph pad Insta 3 software	Ext. significant

Assessment of subjective criteria test table

Sr. no.	criteria	Name of test	significance	Statistical tool	inference
1	Sirapurmtva	Kruskal 's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
2	Raktangtva	Kruskal 's wallis test	<0,0001	Graph pad insta 3 software	Ext. significant
4	Sharir daha	Kruskal's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
5	Sharir gaurav	Kruskal 's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
7	Vidradhi	Kruskal's wallis test's	<0.0001	Graph pad insta 3 software	Ext.significant
8	Kustha	Kruskal's wallis test	0.0001	Graph pad insta 3 software	Ext. significant
16	Santapa	Kruskal's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
17	Krodha	Kruskal's 's wallis test	0.0001	Graph pad insta 3 software	Ext. significant
18	Shitakamtva	Kruskal's 's wallis test test	<0.0001	Graph pad insta 3 software	Ext. significant
19	Alpanidrata	Kruskal's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
22	Pittangtva	Kruskal 's wallis test	0.0074	Graph pad insta 3 software	Verysignificant
23	Raktakotha	Kruskal's wallis test	0.1460	Graph pad insta 3 software	Ext. significant
25	Rakta mandala	Kruskal 's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant
28	Pidaka	Kruskal 's wallis test	<0.0001	Graph pad insta 3 software	Ext. significant

DISCUSSION

1. On the selection of the title: To detect Does Pittaprakopa occur in sharad Rutu, does effect of Pittaprakopa occur on blood profile?

2. On observation

Gender: Proportion of male 57% & 43% female involved in study was not equal. Pittaprakopa in male was more than female because males were more exposable to Sharad Rutu environment.

Diet: out of 100 volunteers 88% were belonged to mixed diet & 12 % were belonged to vegetarian. Diet (cereles, sourfruits, vegetables, curd, pickels, spicy food, alcohols, mash (black gram), sesame oil, Non veg. (meat, fish, eggs) Pitta prakopa found more in non vegetarian than vegetarian volunteers.

Prakriti: out 100 volunteers Vatapradhan pitta prakruti 's volunteers were belonged to 50%, Pittatapradhan vata prakruti 's volunteers were belonged 38% & Kaphapradhan pitta prakruti 's volunteers were belonged to 12% Pittaprakopa found more in Pittapradhanvataprakruti volunteers.

Socioeconomic Status: out of 100, 15% volunteers were belonged to high class, 45% volunteers were belonged to medium class & 40% volunteers were belonged to low class. So significance of pittaprakopa can be assessed more in medium class & low class

3. On result: Out of 21 objective test 9 tests such as MCH, MCHC, DLC(M), BT, CT, Ph, Viscosity

Bilirubin (indirect), Specific gravity were extremely significant & 1 test i.e DLC (B) Absent.

On other hand out of 28 subjective tests 14 tests were

Sirapurntva, Raktangtva, Sharirdaha, Sharirgaurav, Vidradhi, Kustha, Santapa, Krodha, Shitkamitva, Alpanidrata, Raktakotha,

Raktamandala, Pidaka, Pittangtva extremely significant. & 14 tests were not significant and 9 tests were not found during investigation.

Present research study reveals that Pitta prakopa was found in sharad rutu (autumn season) in 100 healthy volunteers and its indication was that out of 37 subjective parametric test, 14 tests result were significant & 14 subjective parametric test were not significant, 9 subjective parametric test were not found while investigation with application of Kruskal Wallis test and effect of Pitta vitiation was found in 45% volunteers out of 100 and its indication was that out of 20 laboratorial blood tests (objective criteria) 9 tests result were significant & other tests were not significant statistically analyzed with (ANOVAs test).

From this it was clear that Pitta Dosha vitiation takes place in Sharad rutu due to climatic changes and it affects blood profile by law of Ashryashryaibhav but it was within physiological limit not in pathological condition.

CONCLUSION

Kruskalkal wallis test was applied for clinical test & **Annova** test was applied for laboratorial test shows significant result, hence.

In Sharad rutu, Pitta dosha vitiates, vitiated Pitta affects blood profile. So in order to keep status of Pitta Dosha in normal condition and to prevent deviations toward pathological condition; we should follow anti Pitta Dosha Aahar (diet), & anti Pitta Dosha vihar (daily regimes).

Pitta vitiation takes place in Sharad Rutu due to climatic changes and it affects blood profile but not pathologically. So Blood collected through blood donation camps in Sharad Rutu contains vitiated Pitta, such blood can be supposed to be disposed, Transfusion to other human being is not beneficial. So before transfusion of blood it should be tested as per point of view of Modern Physiology.

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