

CLINICAL EVALUATION OF DOSHAJ PANDU VYADHI WITH SPECIAL REFERENCE TO BLOOD INDICES

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ABSTRACT

Panduvyadhi is a prominent disease of Rasavahasrotas. It has five types viz. Vataja, Pittaja, kaphaja, sannipatika and Mrudabakshanjanya Pandu. Out of these first four are called as Doshaj Pandu. The Differential diagnosis of Pandu depends upon the symptoms i.e. on the subjective assessment. But if clinical diagnosis of Doshaj Pandu is confirmed with the help of proved parameters as blood indices, it would be helpful to decide line of treatment. Hence we require objective criteria to differentiate types of Pandu vyadhi.

KEYWORDS: Doshaj Pandu, Blood indices, Anaemia.

INTRODUCTION

India has Anaemia as a most occurring disease. In India Disease Prevalence is that 50% of Indian women suffer from some form of Anaemia.

Four Out of every 5 children in the age of 6 to 35 months suffer from Anaemia 20% of maternal Deaths are due to Anaemia.

Maternal mortality is staggeringly high at 454 per every 100000 live births.

Blood Indices

It includes Mean Corpuscular Volume (MCV), Mean Corpuscular Haemoglobin (MCH), and Mean Corpuscular haemoglobin concentration (MCHC). These values are helpful in explaining the aetiology of different types of anemia's.³

With the general availability of electronic cell counters, red cell indices are now automatically measured in all blood count determinations, as well as it is cost effective.

Need of Study

As per Ayurveda, Panduvyadhi is described with details and also its management. Modern medicine uses blood indices to identify the different forms of Anaemia. We have subjective criteria for diagnosis of Pandu especially doshaj pandu (4 types) It will be very useful if we could diagnose doshaj pandu with the help of blood indices as its effective management can start early.

The blood indices are cost effective and are easily available.

Aims & Objectives

Aim

Clinically evaluate the Doshaja Pandu with the help of blood indices.

Objective

Study the role of blood indices for differential diagnosis of Doshaja Pandu.

Hypothesis

Ho- There is no significant relation between Doshaj Pandu and blood indices.

H1- There is a significant relation between Doshaj Pandu & blood indices.

METHODOLOGY

Type of Study- Cross Sectional

Sample size- 100 patients of Pandu Vyadhi.

Place of Study- D.Y. Patil Ayurvedic Hospital, Nerul, Navi Mumbai

Inclusion Criteria

1. Patients with Hb % below 10gm/dl
2. Age between 20 to 60 years
3. Sex- Male/Female

Exclusion Criteria

1. Mrudabakshanjanya & Sannipatik Pandu

2. Patients of Pandu with other chronic & major illness
3. Uncooperative & Unconscious patient
4. Pregnant women
5. Patients with psychological disorders

Plan of Study

1. Patients of Anaemia are selected from OPD of D.Y.Patil college of Ayurveda Hospital.
2. Informed consent from patients & relatives will be taken.
3. The patient selected fulfilling the criteria will be screened for Hb%
4. The assessment of patients will be conducted as per CRF (Case record form)
5. Assessment & Statistical analysis will be conducted according to the data collected.
6. Discussion & Conclusion will be drawn on the basis of observations & the result of study.

Assessment Criteria

Subjective

CRF including history taking, general and systemic examination and Pandu vyadhi lakshanani will be prepared.

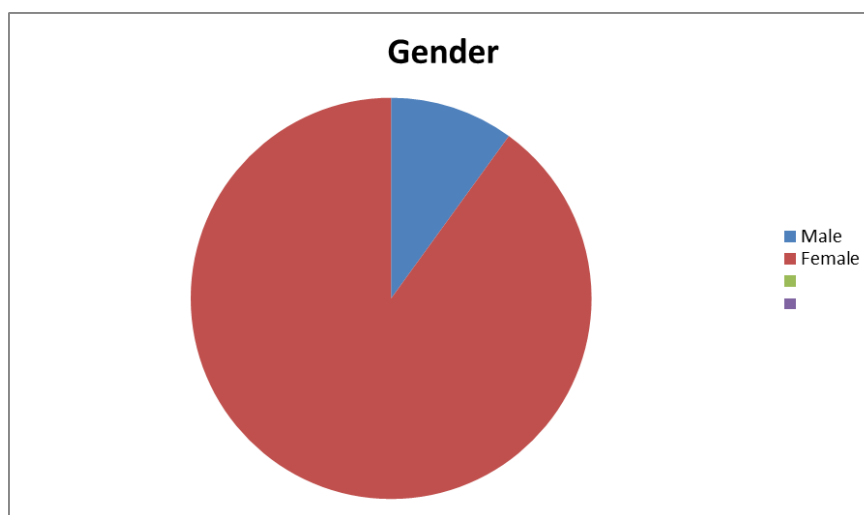
Objective

1. Estimate Hb%.
2. Blood Indices MCH (Mean Corpuscular Haemoglobin)-Amount of Hb present in average RBC. Normal Value of MCH is 25-30 picogram.
3. MCV (Mean Corpuscular Volume)- Average volume of RBC. Normal value of MCV is 80-100 femtolitres.
4. MCHC (Mean Corpuscular Haemoglobin Concentration). This is the amount present of Hb in 100ml of RBC. Normal Value of MCHC- 34.5gm/100ml of RBC.
5. Conduct MCH, MCV, MCHC and then correlate with Doshaj Pandu Lakshanani.

OBSERVATION

Table 1: Genderwise Frequency Distribution.

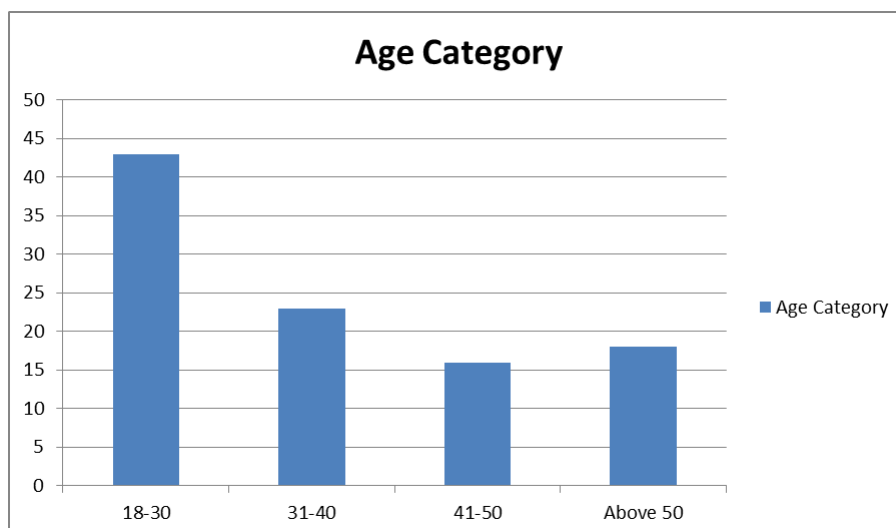
Sex	Frequency	Percentage
F	90	90%
M	10	10%
Total	100	100%



Graph No. 1

Table 2: Age wise Frequency Distribution.

Age in Years	Frequency	Percentage (%)
18-30	43	43
31-40	23	23
41-50	16	16
>50	18	18
Total	98	98



Graph 2: Age Category.

Table 3: Frequency Distribution of MCH with Doshaj Pandu.

Sr. No	Column Title	Vataj Pandu	Pittaj Pandu	Kaphaj Pandu
1	Mean	28.46	24.61	25.17
2	Standard Deviation (SD)	1.26	3.784	3.751
3	Sample Size (N)	9	68	23
4	Standard Error of Mean (SEM)	0.42	0.4589	0.7821
5	Lower 95% conf limit	27.487	23.695	23.552
6	Upper 95% conf limit	29.424	25.528	26.796
7	Minimum	26.3	15	19.5
8	Median (50 th Percentile)	28.3	23.75	26.5
9	Maximum	30	33	31
10	Normality test KS	0.1716	0.1054	0.2018
11	Normality test p value	>0.10	0.0589	0.0159
12	Passed normality test?	Yes	Yes	No

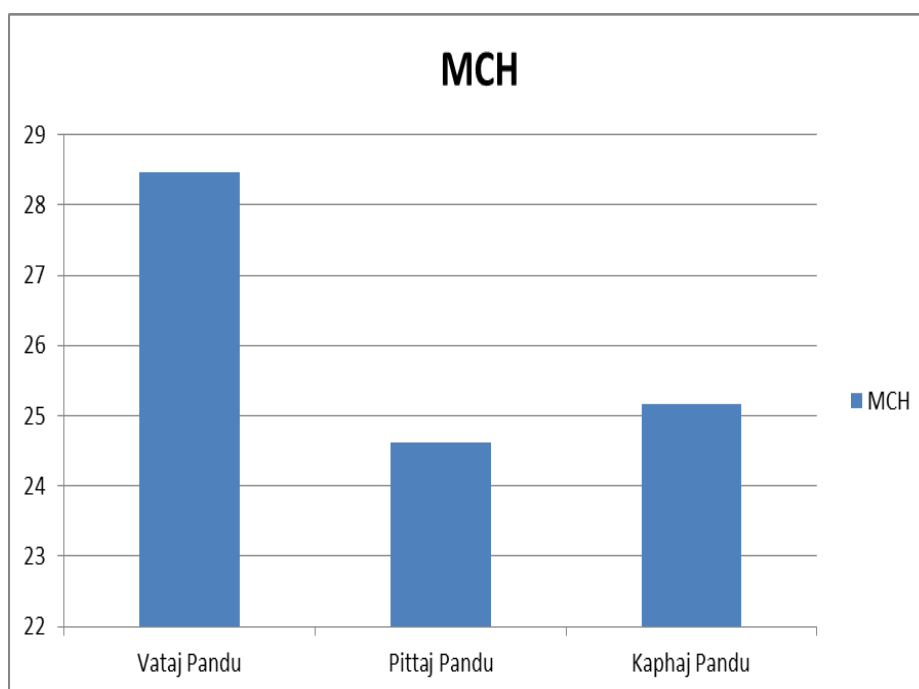
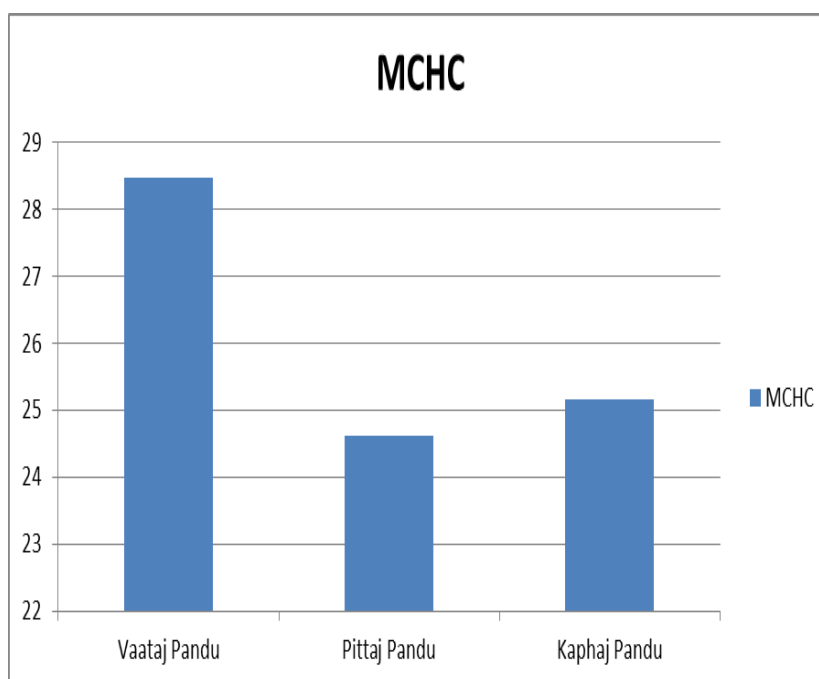
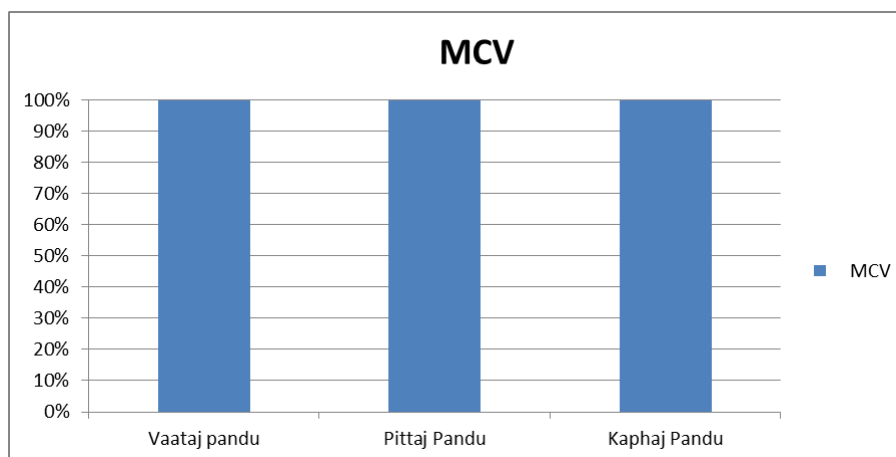


Table 4: Frequency Distribution of MCHC with Doshaj Pandu.

Sr.No	Column Title	Vataj Pandu	Pittaj Pandu	Kaphaj Pandu
1	Mean	31.86	33.95	33.47
2	Standard Deviation (SD)	3.067	1.521	1.637
3	Sample Size (N)	9	68	23
4	Standard Error of Mean (SEM)	1.022	0.1844	0.3413
5	Lower 95% conf limit	29.498	33.582	32.757
6	Upper 95% conf limit	34.213	34.318	34.173
7	Minimum	26.3	28.5	29.5
8	Median (50 th Percentile)	32.8	34	26.5
9	Maximum	35	36.2	35.8
10	Normality test KS	0.2626	0.09411	0.1194
11	Normality test p value	0.0739	>0.1	>0.1
12	Passed normality test?	Yes	Yes	Yes

**Graph 4:****Table 5: Frequency Distribution of MCV with Doshaja Pandu.**

Sr. No	Column Title	Vataj Pandu	Pittaj Pandu	Kaphaj Pandu
1	Mean	90.9	90.63	90.98
2	Standard Deviation (SD)	4.44	4.73	5.676
3	Sample Size (N)	9	68	23
4	Standard Error of Mean (SEM)	1.48	0.5736	1.183
5	Lower 95% conf limit	87.487	89.481	88.524
6	Upper 95% conf limit	94.313	91.772	93.433
7	Minimum	86.5	82.3	82.6
8	Median (50 th Percentile)	91.2	89.9	90.2
9	Maximum	97.2	99.5	102.2
10	Normality test KS	0.2225	0.1052	0.1157
11	Normality test p value	>0.1	0.0597	>0.1
12	Passed normality test?	Yes	Yes	Yes



Graph 5:

DISCUSSION

We need to correlate Doshaj Pandu with modern Laboratory tests. Doshaj Pandu are Vaataj Pandu, Pittaj Pandu, Kaphaj Pandu and are studied along with the blood indices i.e. MCHC, MCH, MCV and statistically analysed.

Discussion with Demographic Data

Age

Majority of the patients 43% were in age group of 20 to 30 years followed by 32% in age group 31-45 years, 25% were reported in age group of 45-60 years.

It reveals at younger age especially woman are more prone to anaemia.

Sex

Majority of patients are female 91% and male 9% which shows female are more prone than male.

Religion

We cannot deduce anything with the religion as Hindus are more in the demographic area.

Dosha

Maximum no. of patients of this study having pitta i.e. 68%, kapha 23%, and vaata 9%.

Aahara

In the present study 60% patients were having mix (Veg & nonveg) 26% were having only non veg and 14% only vegetarian diet.

Weight & Aakruti

Majority patients with madhyam Aakruti had 67% followed by 26% sthula Aakruti and 7% patients of krusha Aakruti.

Prakruti

Maximum no. of patients have vaatpitta prakruti i.e. 46% followed by kaphapitta prakruti i.e. 24% and pittakapha prakruti i.e. 30%

Occupation

The maximum patients are housewives i.e. 78%, service sector i.e. 20%, and other sectors i.e. 2%.

After applying statistical ANOVA test we have following discussion.

Total 100 patients of pandu vyadhi were studied. Out of these 100, 9 were of Vaataj pandu, 68 pittaj, and 23 of kaphaj pandu.

So it is observed that pittaj pandu i.e. 68% is prevalent followed by kaphaj type i.e. 23%, and 9% of vaataj type.

Samprapti of Pittaja pandu states of having pittaj dosha predominance. So the study implies dominant pitta dosha is responsible for pathogenesis of pandu.

Now lab tests for anaemia especially blood indices are studied in the present study.

MCV shows strong relation with pittaj pandu and can be said it rejects the null hypothesis and is definitely favours correlation as p value is 0.059.

There is weak correlation for vaataj and kaphaj pandu with respect to MCV as p value is 0.1.

MCH do not show significant correlation with kaphaj pandu in statistical terms but correlates significantly with pittaj & vaataj pandu.

CONCLUSION

1. There is strong correlation between doshaj pandu and blood indices.
2. MCV shows strong correlation with pittaj pandu.
3. MCV shows weak correlation between vaataj & kaphaj pandu.
4. There is weak correlation between MCHC with vaataj, pittaj & kaphaj pandu.
5. There is strong correlation between MCH with pittaj pandu.
6. There is weak correlation between MCH & vaataj pandu.

7. MCH do not show correlation with kaphaj pandu.
8. Blood indices are helpful in differential diagnosis of doshaj pandu.
9. Ayurvedic diagnosis of Doshaj pandu will be confirmed with blood indices.
10. Blood indices can be used as a diagnostic tool for Pandu.

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