

**STUDY OF RELATION BETWEEN PULSE RATE AND *NADIGATI*
IN *PITTA PRADHAN PRAKRUTI* MALES, ACCORDING TO
AYURVEDA AND MODERN SCIENCE**

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ABSTRACT:

Ayurveda is an oldest science known to mankind and mainly aims to maintenance of health. According to ayurveda prakruti means physical constitution of a person. Prakruti helps in deciding the therapeutic regimen. Prakruti i.e. science of nature means innate, character, physical constitution or disposition of a person plays an important role in comprehending the physical and mental characteristics. The combination of vata, pitta, and kapha that was present in individual at the time of conception is maintained throughout his life. Different person can have different combination of vata, pitta and kapha as their basic constitution or prakruti. Our prakruti help's in determining health status of person, our susceptibility to different diseases, the course and pattern that the disease may as follow, complication and prognosis of the disease. The examination of pulse is explained in ayurveda in terms of nadi gati. In this paper, an effort is taken to study the relation between pitta-pradhana prakruti, pulse rate and nadi gati in males according to ayurveda as well as modern science. This will help to determine the condition of dosha inside body with the help of nadi-parikshan.

KEYWORDS: *Ayurveda, Pitta-pradhana prakruti, Pulse rate, Nadi gati*

INTRODUCTION

Ayurveda is a science which helps to examine the diseased person not only disease and it helps to give proper treatment for better results. There are many scientific concepts in *Ayurveda* which needs a detail scrutiny to assess their utility in the field of science. Basic principle of *Ayurveda*,

mainly concerned with *sharir kriya*, gives knowledge about *dosha, dhatu & mala*. The principle of treating the sick and not the sickness is central to all forms of *Ayurvedic* treatment.

For both of these it is very necessary to know the prakruti of an individual. With the help of prakruti of particular person, Ahara vihara can be maintained. There are different types of prakruti e.g. Doshaja, manasa etc. For studying predominance of dosha in the individual, study of prakruti is very important and useful.

Prakruti deals with some physical, mental, sensory, motor and spiritual character of individual. At the time of conception doshas which are in predominant state are responsible for prakruti of respective foetus and at the same time the hereditary factors are transferred by shukra and shonita in that foetus. This prakruti of foetus remains same till death. The purusha which is having Sama dosha's (balanced state of dosha's), Agni, dhatu and mala. Prasana atma, indriya and mana which are working properly are called swastha- purusha.

To examine & consider *swastha purusha*, we must see *dosha, dhatu, mala, Agni samatva* i.e. *guna, karma, kriya* of *dosha, dhatu, mala* and *Agni*. The above description shows the importance of *prakruti parikshna* in *swastha purusha*. When we are examining *nadi* with three fingers' (*Tarjani, madhyama & Anamika*) it shows *vata, Pitta, & kapha doshadhikya* respectively.

Here, Researcher have selected the persons with *Pittapradhana prakruti* for my study and the observations for pulse rate and *nadi gati* are recorded and compared.

MATERIALS AND METHODOLOGY:-

MATERIALS:-

For literature study:-

Available literature regarding Prakruti, Pulse and Nadi gati in ancient Ayurvedic samhita and modern books, previous research work, research journals, research papers on related topics, authentic internet sources

For observation study:-

Sample size of 60 selected from students of our college. The females in age group taken here are undergoing hormonal changes and Nadigati can change depending upon the phases of menstrual

cycle. Thus, we had to eliminate the female students from study to avoid the bias regarding Nadigati

Inclusion Criteria:

Male students

Age-group 18-24 years

Same socio-economic background

Exclusion Criteria:

Students suffering from any major illness

female students

Students included in this study were given complete knowledge about study and also permitted to withdraw from the study any time.

They were also personally interviewed by the investigator about their personal health status and then prakruti parikshana, count of pulse rate, and nadi gati was done.

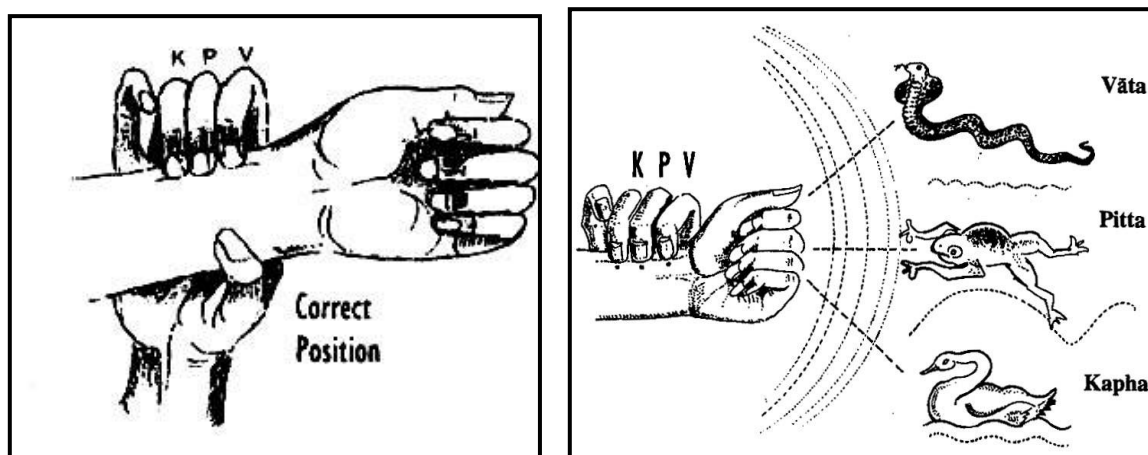
METHODOLOGY:-

1. The first step towards the work was collection of relevant material from the sources mentioned above.
2. According to *Prakruti parikshan* proforma, the study of *Prakruti* of the individual/volunteer was done and according to the percentage of each *prakruti*, *Prakruti vinischaya* was done.
3. Pulse rate count of each volunteer of Pitta prakruti was done with the help of three fingers (Index, Middle & Ring finger) as state in modern books.

For pulse rate count three successive readings were taken on alternate days at the same time early in the morning to maintain record of pulse. Mean reading was taken for consideration.

4. *Nadi gati parikshana* was done with the three fingers (*tarjani*, *madhyamam* & *anamika*) as per the procedures explained in *ayurvedic* texts to assess *doshadhiykya* in *nadi*.
5. By using instrument pulse – oximeter (which provides pulse rate and graph of pulse) the graph of each volunteers were recorded.
6. The data generated in the above study was analysed by studying the variation observed in the above examination factors.

Figure no 1: Correct Method of Nadipariksha



(Source: Secret of pulse, the ancient art of *Ayurvedic* pulse diagnosis)

Table No 1:

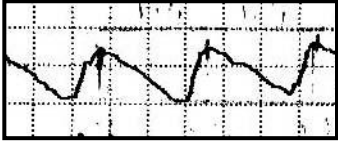
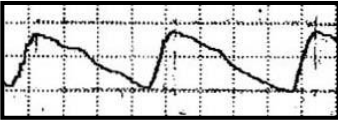
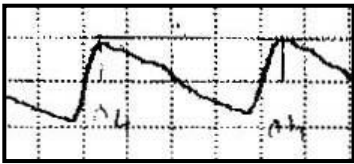
Description of Nadi

Particulars	<i>Vata nadi</i>	<i>Pitta nadi</i>	<i>Kapha nadi</i>
Characteristic	Fast disappear on pressure	Prominent, strong,	Deep, slow, broad, regular
		forceful, high amplitudes.	
Location	Best felt under index finger (<i>tarjani</i>)	Best felt under middle finger (<i>madhyama</i>)	Best felt under the ring finger (<i>Anamika</i>)
Gati	Moves like <i>sarpa</i>	Moves like a <i>manduka</i>	Moves like a <i>hansa</i>

(Source: Secret of pulse, the ancient art of *Ayurvedic* pulse diagnosis)

Table No 2:

Description of Nadi

Graph	Gati	Condition
	<i>Sarpa gati</i>	Normal <i>vata nadi</i>
	<i>Manduk gati</i>	Normal <i>pitta nadi</i>
	<i>Hansa gati</i>	Normal <i>kapha nadi</i>

(Source: Secret of pulse, the ancient art of *Ayurvedic* pulse diagnosis)

OBSERVATION AND RESULTS:-

Table no 3: PITTA PRADHANA PRAKRUTI PULSE RATE AND NADI GATI

Pitta pradhana prakruti (60 males)	Pulse rate (mean)/min	Nadi gati
1	78	<i>Sarpa</i>
2	72	<i>Sarpa</i>
3	76	<i>Sarpa</i>
4	78	<i>Sarpa</i>
5	78	<i>Sarpa</i>
6	78	<i>Sarpa</i>
7	76	<i>Manduka</i>
8	76	<i>Sarpa</i>
9	74	<i>Manduka</i>
10	72	<i>Sarpa</i>
11	78	<i>Sarpa</i>
12	74	<i>Sarpa</i>
13	72	<i>Manduka</i>

14	80	Sarpa
15	78	Manduka
16	78	Sarpa
17	78	Sarpa
18	72	Manduka
19	72	Sarpa
20	72	Manduka
21	78	Sarpa
22	76	Manduka
23	72	Manduka
24	70	Manduka
25	80	Sarpa
26	74	Manduka
27	74	Sarpa
28	70	Hansa
29	76	Manduka
30	78	Sarpa
31	76	Manduka
32	78	Sarpa
33	74	Manduka
34	76	Sarpa
35	72	Manduka
36	70	Hansa
37	76	Manduka
38	72	Manduka
39	78	Sarpa
40	80	Sarpa
41	74	Manduka
42	78	Hansa
43	76	Manduka
44	78	Manduka
45	78	Sarpa
46	80	Manduka
47	82	Sarpa
48	76	Manduka

49	72	<i>Sarpa</i>
50	78	<i>Sarpa</i>
51	70	<i>Hansa</i>
52	72	<i>Manduka</i>
53	76	<i>Sarpa</i>
54	76	<i>Manduka</i>
55	70	<i>Manduka</i>
56	74	<i>Manduka</i>
57	78	<i>Manduka</i>
58	74	<i>Manduka</i>
59	70	<i>Sarpa</i>
60	78	<i>Sarpa</i>

(Source: Primary Data)

Table No 4:PITTA PRADHANA VATA PULSE RATE AND NADI GATI

<i>Pitta pradhana vata</i> (21 males)	Pulse rate (mean) /min	<i>Nadi gati</i>
1	78	<i>Sarpa</i>
2	72	<i>Sarpa</i>
3	76	<i>Sarpa</i>
4	78	<i>Sarpa</i>
5	78	<i>Sarpa</i>
6	78	<i>Sarpa</i>
7	76	<i>manduka</i>
8	76	<i>Sarpa</i>
9	74	<i>manduka</i>
10	72	<i>Sarpa</i>
11	78	<i>Sarpa</i>
12	74	<i>Sarpa</i>
13	72	<i>manduka</i>
14	80	<i>Sarpa</i>

15	78	<i>manduka</i>
16	78	<i>Sarpa</i>
17	78	<i>Sarpa</i>
18	72	<i>manduka</i>
19	72	<i>Sarpa</i>
20	72	<i>manduka</i>
21	78	<i>Sarpa</i>

(Source: Primary Data)

Table no 5: PITTA PRADHANA KAPHA PULSE RATE AND NADI GATI

<i>Pitta pradhna kapha</i> (39 males)	Pulse rate (mean) / min	<i>Nadi gati</i>
22	76	<i>manduka</i>
23	72	<i>manduka</i>
24	70	<i>manduka</i>
25	80	<i>Sarpa</i>
26	74	<i>manduka</i>
27	74	<i>Sarpa</i>
28	70	<i>Hansa</i>
29	76	<i>manduka</i>
30	78	<i>Sarpa</i>
31	76	<i>manduka</i>
32	78	<i>Sarpa</i>
33	74	<i>manduka</i>
34	76	<i>Sarpa</i>
35	72	<i>manduka</i>
36	70	<i>Hansa</i>
37	76	<i>manduka</i>

38	72	<i>manduka</i>
39	78	<i>Sarpa</i>
40	80	<i>Sarpa</i>
41	74	<i>manduka</i>
42	78	<i>Hansa</i>
43	76	<i>manduka</i>
44	78	<i>manduka</i>
45	78	<i>Sarpa</i>
46	80	<i>manduka</i>
47	82	<i>Sarpa</i>
48	76	<i>manduka</i>
49	72	<i>Sarpa</i>
50	78	<i>Sarpa</i>
51	70	<i>Hansa</i>
52	72	<i>manduka</i>
53	76	<i>Sarpa</i>
54	76	<i>manduka</i>
55	70	<i>manduka</i>
56	74	<i>manduka</i>
57	78	<i>manduka</i>
58	74	<i>manduka</i>
59	70	<i>Sarpa</i>
60	78	<i>Sarpa</i>

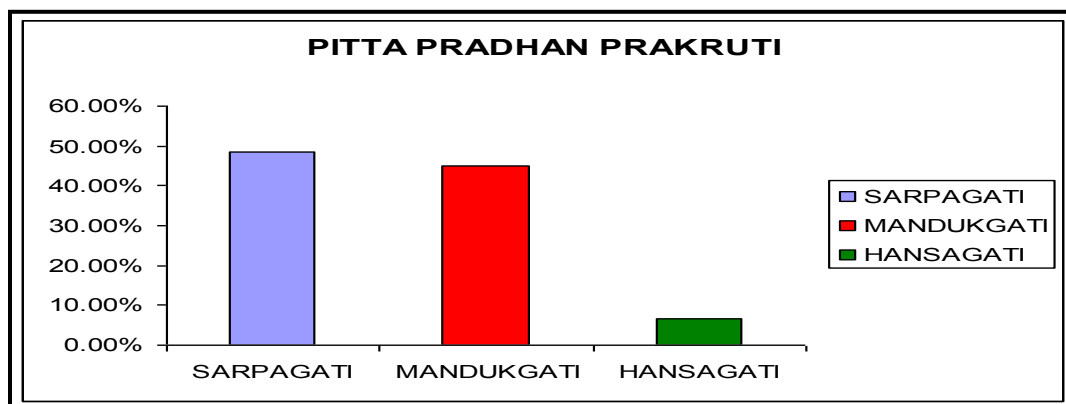
(Source: Primary Data)

Table no 6 : Description of Nadi

Nadi	SARPAGATI	MANDUKAGATI	HANSAGATI
PITTAADHIKYA	29	27	4
60 MALES	48.33%	45%	6.6%

(Source: Primary Data)

Figure no 3:



(Source: Primary Data)

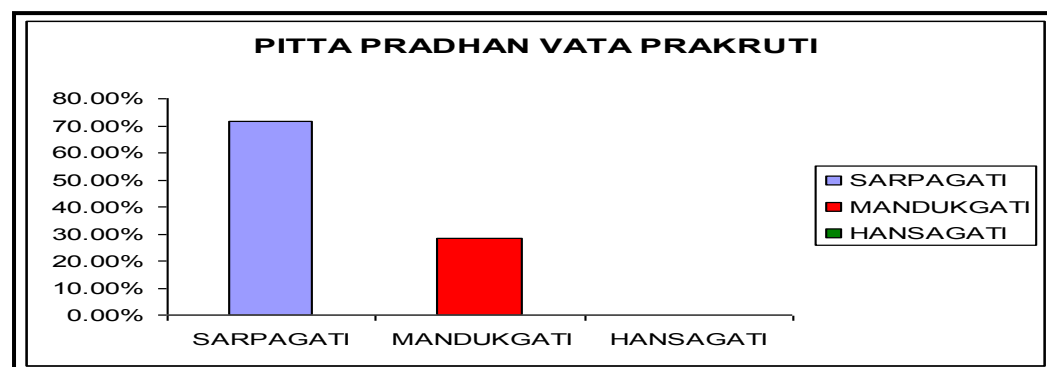
STATISTICAL ANALYSIS:-

Proportion test is applied and significantly found, in *pittapradhan prakruti* no. of volunteers in *sarpa gati* 29 – 48.33% and no. of volunteers in *manduk gati* 27 – 45%, and no. of volunteers in *hansa gati* 4 – 6.6%

Nadi	SARPAGATI	MANDUKAGATI	HANSAGATI
PITTADHIKYA	15	6	0
VATA(21)	(71.42%)	(28.57%)	(0%)

(Source: Primary Data)

Figure no 4:



(Source: Primary Data)

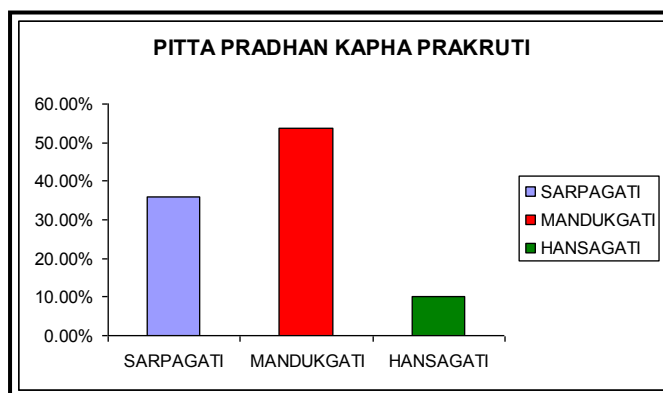
STATISTICAL ANALYSIS:-

We also found that, in *pittapradhan prakruti*, *doshadhikya nadi* and *gati* of *nadi* is found almost 71.42% (i.e., *sarpagati* of *Anubandhiya dosha*).

Nadi	<i>SARPAGA TI</i>	<i>MANDUKAG ATI</i>	<i>HANSAG ATI</i>
<i>PITTADHIKY A KAPHA</i> (39)	14 (35.89%)	21 (53.84%)	4 (10.25%)

(Source: Primary Data)

Figure no 5:



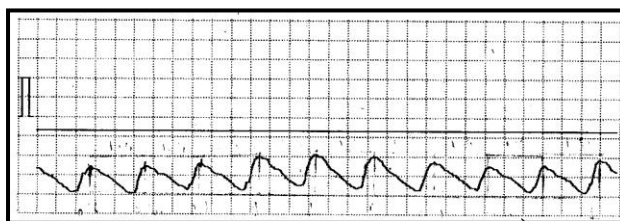
(Source: Primary Data)

STATISTICAL ANALYSIS:-

We also found that, in *pittapradhan prakruti*, in 53.84% volunteers we got *mandukgati* of *pitta doshadhikya*.

Subject No. 1

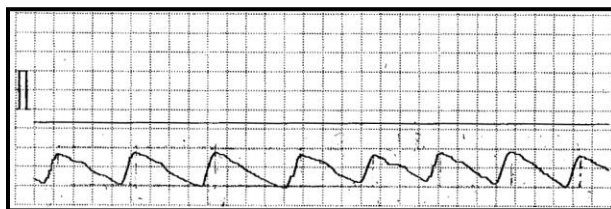
SARPAGATI



(Source: Primary Data)

Subject No. 2

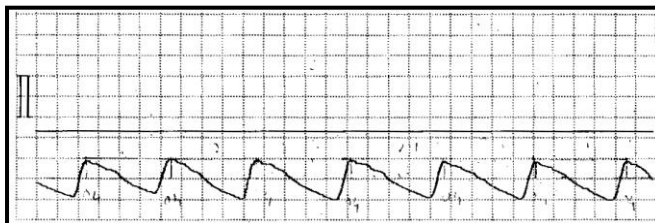
MANDUKAGATI



(Source: Primary Data)

Subject No. 3

HANSAGATI



(Source: Primary Data)

DISCUSSION:-

Ayurveda as well as modern science serve health related purpose to the mankind. They are based on different principle. Modern physiology got more instrumentation for the study. For every aspect in physiological technique of *Ayurveda*, modern explanation is not feasible. Science of *Ayurveda* is more observed than investigated and it is based on clinical findings. *Ayurveda*, physiology is study of *dosha*, *dhatu* and *mala* which together constitutes living body. Each group has its own characteristics and has different role in the homeostasis of the body physiology as well as these *doshas* responsible for the formation of *prakruti* of respective foetus during conception. Keeping this in mind, the limitation it was decided to use basic concept of *Ayurveda*. *Ayurveda* is an individually specific science and does not forward parameters in statistical way.

In this study, to make it concise but useful, we tried to learn relation between *pitta pradhana prakruti* only, pulse rate and *nadi gati* in males. The females in age group taken here are

undergoing hormonal changes and *Nadigati* can change depending upon the phases of menstrual cycle. Thus, we had to eliminate the female students from study to avoid the bias regarding *Nadigati*.

In the beginning of study, every volunteer was given the general idea of study and informed consent was obtained. Prakruti parikshana of every volunteer was done with the help of particular format which was same for all. The individual's Prakruti was determined based on the conclusions obtained. The volunteer with Pittapradhana Prakruti only were further included in future study. Out of total 150 volunteers, 60 were Pittapradhana, thus those were included in study. 21 volunteer were Pittapradhana Vata Prakruti whereas 39 were having *Pittapradhana Kapha Prakruti*.

Each selected volunteer was examined for his *Nadigati* in the early morning on the prescribed day.

- a) In 60 students, we found 48.33% of *sarpa gati*, 45% of *manduka gati* and 6.6% of *hansa gati*.
- b) In the volunteers having *pittadhikya vata* (21) we found 71.42% of *sarpa gati*, 28.57% of *manduka gati* and specially we have found *hansa gati* of 0%. Although the volunteers were having *Pitta* dominance over the *Vata* in *Pittapradhana Vata Prakruti*, *Sarpa gati* which is considered as *Vatagati* was found on higher side.
- c) In the volunteers having *pittadhikya kapha* (39) we have found 35.89% of *sarpa gati*, 53.84% of *manduka gati* and 10.25% of *hansa gati*. Although the volunteers were having *Pitta* dominance over the *Kapha* in *Pittapradhana Kapha Prakruti*, *Manduka gati* which is considered as *Pittagati* was found on higher side along with *Sarpagati* having more percentage than *Hansagati* although there was no relevance of *Vata* dominance in those volunteers.

CONCLUSION:-

In my study the findings are as follows :-

- A) In *pitta pradhana prakruti* the percentage of *sarpa gati* and *manduka gati* is slightly equal. [Total 60 volunteers – *Sarpa gati* 29 (48.33%), *Manduka gati* 27 (45%) and *Hansa gati* 4 (6.6%)].

- B) In same volunteers in *pittadhikya vata* (21), we found *Sarpa gati* (number of volunteers 15 – 71.42%) *Manduka gati* (number of volunteers 6 – 28.57%) and as specially *Hansa gati* (number of volunteers 0 – 0%).
- C) In same volunteers in *pittadhikya kapha* (39), we found *Sarpa gati* (number of volunteers 14 – 35.89%), *Manduka gati* (number of volunteers 21 – 53.84%) and in *Hansa gati* (number of volunteers 4 – 10.25%)
- D) From the above data, it is clear that as the volunteers were of Pitta dominance and age also supported as the Yuvavastha is Pittadhikya kala, the percentage of mandukagati was more as compared to others.

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