

A CORRELATIVE STUDY BETWEEN PRAKRUTI AND ANARTAVA DUE TO POLYCYSTIC OVRIAN SYNDROME

Vd. Vinaya V. Potdar^{1*}, Dr. Ramesh Milind Bansode² and Dr. Sampada S. Sant³

¹PG Scholar, Dept. of Kriya Sharir, Government Ayurved College, Nanded, Maharashtra.

²Guide, Professor, Kriya Sharir, Government Ayurved College, Nanded. Maharashtra.

³Professor & HOD, Kriya Sharir, Government Ayurved College, Nanded. Maharashtra.

Article Received on
03 July 2018,

Revised on 23 July 2018,
Accepted on 12 August 2018

DOI: 10.20959/wjpr201816-13171

*Corresponding Author

Dr. Vd. Vinaya V. Potdar

PG Scholar, Dept. of Kriya
Sharir, Government Ayurved
College, Nanded,
Maharashtra.

ABSTRACT

Ayurveda has described “*Dashvidha Pariksha*” (ten points of examination) for the purpose of *Rogi Pariksha* (patient examination). Among these *Prakruti* Examination of patient is the most important; hence it is enlisted at number one. It expresses a unique trait of an individual that is defined by specific and permanent composition of *Dosha* right from birth. *Prakruti Pariksha* is important even in patients. Therefore, it is a sincere attempt to examine the *Prakruti* in polycystic ovarian syndrome (PCOS) for prevention, early diagnosis and its management. The Prevalence of PCOS in India is about 9.13%. It is the most common cause of infertility in the female. It is

characterized by amenorrhoea, obesity, acne, hirsutism, anxiety, hair fall and multiple follicular cysts in the ovary with or without hormonal imbalance. Cardiovascular disorder, diabetes mellitus, obesity, fatty liver etc. are the risk factor of PCOS. According to *Ayurveda* PCOS comes under *Kapha-Medojanya Vikara*. Today's sedentary lifestyle is responsible for it. Excess *Kapha* and *Meda* causes *Avarana* (obstruction) to *Apana Vayu* leading to *Artava Avrodh* (anovulation). *Doshaj Prakruti* has influence on gynecological disorders in females. Taking into consideration the *Dosha* predominance can help in the prevention and management of polycystic ovarian syndrome. So, diagnosis of *Prakruti* in PCOS patients has great role in advising lifestyle, diet, regimen, different *panchakarma* therapy, *yoga* posture, occupation etc. Therefore 130 patients of PCOS were selected and *prakruti* examination was done to find out the *prakruti* which is mostly prone to PCOS.

KEYWORDS: *Prakruti*, *Anartava*, Amenorrhoea, PCOS, PCOD.

INTRODUCTION

Ayurveda is an ancient science of life. It has described “*Dashvidha Pariksha*” (ten points of examination) for the purpose of *Rogi Pariksha* (patient examination). Among these *Prakruti* examination of patient is the most important; hence it is enlisted at number one.^[1]

The word '*Prakruti*' means 'nature' and this reflects the natural state of human beings on an anatomical, physiological, and psychological level. It expresses a unique trait of an individual that is defined by specific and permanent composition of *Dosha* right from birth. *Prakruti* makes every person unique, so no one can be exactly like other person.

The characteristic features of *Doshaj Prakruti* mentioned in *Ayurveda* classical text are best seen during healthy state of an individual and so very much valid to certify health status. Even in diseased condition, it is necessary to decide one's normal *Prakruti* to understand the nature and severity of diseases, response of the body to drugs etc. It holds the key to maintenance of health, prevention and management of disease. So, *Prakruti Pariksha* is important even in the patient. Therefore, it is a sincere attempt to examine the *Prakruti* in PCOS for prevention, early diagnosis and its management. Sometimes doubt may arise in mind, that during diseased condition there is imbalance of *Tridosha* or everything is in abnormal state. So, determination of one's *Prakruti* is unreliable or incorrect. Hence for this doubt, *Acharya* has given explanation by stating that inborn characteristic features of *Doshaj Prakruti* of an individual are not going to change totally or all of sudden; such changes if at all, come just before death (*Gatayu*), whereas during diseased condition many part of the body retain their original features, on the basis of which determination of *Prakruti* will be possible; So the physician should sincerely examine it.^[2]

For an individual basic knowledge of *Prakruti* is a vital tool, in helping one determine the most reliable lifestyle that will ensure wellness and longevity, appropriate diet, regimes, herbs, exercise, medicines, therapies and even suitable professions.

God has blessed females with the most valuable gift of motherhood. Females are the important pillar of community with having special characterized body system.

Every healthy female menstruate regularly between 23rd to 35th day and when she fails to menstruate at regular interval in her reproductive age this condition is called amenorrhea. It is a symptom and not disease. In *Ayurveda* it is named as '*Anartava*'. The *Sanskrit* meaning of

Amenorrhoea is *Nashta-Rakta* or *Raja Kshaya* or *Arajaska* or *Anartava*. According to *Ayurveda* all three *Dosha* (*Vata*, *Pitta* and *Kapha*) are responsible for *Anartava*. *Anartava* may be associated with various pathological conditions like hypothyroidism, anaemia, malnutrition, Cushing syndrome, polycystic ovarian syndrome (PCOS) etc. But nowadays PCOS is the most common cause responsible for the *Anartava*. Polycystic ovarian syndrome (PCOS) was originally described in 1935 by Stein and Leventhal as a syndrome manifested by amenorrhoea, irregular scanty menstruation, hirsutism, acne, and obesity associated with enlarged polycystic ovaries looking like string of pearls. This is a heterogeneous disorder characterized by excessive androgen production by the ovaries mainly. The prevalence of polycystic ovarian syndrome (PCOS) in India is about 9.13%. It is the most common cause of infertility in the female. Cardiovascular disorder, diabetes mellitus, obesity, fatty liver etc. are the risk factors of PCOS.^[3]

According to *Ayurveda* PCOS can co-relate with *Kaphaj* disorder. It is basically a disease of *Artavavaha Srotas*. *Avarana* is the main pathogenesis in PCOS. Today's sedentary lifestyle, junk food, lack of exercise, stress, anxiety, suppression of natural urges leads to production of *Ama* with excess *Kapha* and *Meda*. Mainly *Kapha* and *Meda* related *Dosha Dushya Samurchana* is mostly seen in PCOS. In PCOS *Kapha* dominant *Granthis* are seen in ovary. *Granthis* develop when there is the *Sanaga* in *Srotas* with *Guru*, *Mand*, *Picchil* and *Snigdha Viklpa* of *Kapha Dosha*. This *Granthis* with a strong *Kapha* platform inhibits the *Artava Pravriti* leading to *Artava Avarodh*.

Ayurveda has described various diseases according to *Dosha* predominance of an individual called as "*Nanatmaja Vikara*" like *Kapha Nanatmaja*, *Pitta Nanatmaja* and *Vata Nanatmaja Vikara*. Also the Classification of "*Vinshati Yonivyapad*" (twenty gynecological or menstrual disorders) based on predominance of specific *Dosha* is described. It means that *Doshaj Prakriti* has influence on gynecological disorders or menstrual pattern in females. Taking into consideration of *Dosha* predominance can help in the prevention and management of polycystic ovarian syndrome. So, diagnosis of *Prakriti* in the PCOS patient has great role in advising lifestyle, diet, regimen, different *Panchakarma* therapy, *Yoga* posture, occupation etc. Hence, in this study topic was selected to find out the relationship between *Prakriti* and *Anartava* due to Polycystic Ovarian Syndrome or which kind of *Prakriti* is mostly susceptible to PCOS.

AIM: To evaluate the co-relation between *Prakruti* and *Anartava* due to Polycystic Ovarian Syndrome.

OBJECTIVES

1. To evaluate the co-relation between *Prakruti* and PCOS or to find out which kind of *Prakruti* mostly prone to PCOS.
2. To study the *Prakruti* in PCOS patients
3. To study the *Anartava* due to PCOS according to *Ayurveda* and modern view.

MATERIAL AND METHOD

During the study of “To evaluate the co-relation between *Prakruti* and *Anartava* due to Polycystic Ovarian Syndrome”, 130 subjects of PCOS were selected. Ultrasonography of each and every volunteer was done for confirmative diagnosis. Each volunteer was examined by the standard chart of “*Prakruti Parikshan*” and *Prakruti Vinishchaya* was done.

a) Selection of Subjects

Subjects were selected from our institute and peripheral area.

b) Inclusive Criteria

1. Age -15 to 35 years.
2. PCOS related amenorrhea only selected.

c) Exclusive Criteria

1. The patient having HIV.
2. HBsAg positive
3. CA of uterus
4. Primary Amenorrhoea
5. Anemia.
6. PID(pelvic inflammatory diseases)
7. Thyroid disorder.
8. Tuberculosis
9. Cardiovascular disorders.
10. Diabetes mellitus and asthma.

Steps in study

1. 130 subjects of PCOS were selected as per inclusive and exclusive criteria and written consent had taken.
2. Each of the volunteer was examined and data recorded in Case record form.
3. Then *Prakruti* examination was done in each volunteer by the standard chart of “*Prakruti Parikshan*” and *Prakruti Vinishchaya*.

For examination following instruments were used

1. Weighing machine – for measuring body weight 2. Sphygmomanometer – for measuring blood pressure 3. Stethoscope – for assessing heart rate 4. Thermometer – for measurement of body temperature 5. BMI Calculator Application. 6. Measuring tape for height measurement.

Subjective and Objective parameter

1) **Amenorrhoea** -(with scanty, irregular, heavy pattern) By interrogation method as above stated and noted in the form of “yes” (if present) and “No” (if absent).

2) **Obesity or weight gain**- By observing patients body built, weight and height and calculating body mass index (BMI) by BMI calculator application. Formula of BMI = weight in Kg / height in meter square).

3) **Hirsutism (Yes/No)** - By observing the hair growth on different body part of the patient. Face - upper lip, chin, lower jaw. Body - chest arms, upper back, upper abdomen, lower abdomen, thighs. etc. observed. If hirsutism present- “yes”, if hirsutism absent- “No” is noted.

4) **Acne (Yes/No)** -Same way acne also noted in the form of “Yes” or No”. Present acne – yes, Absent - No acne.

Type of study -Open randomized cross sectional observational study, Cross sectional-Single time study, Survey study.

OBSERAVATION AND RESULTS**Table No. 1: Age wise distribution.**

Age (yrs)	15-20	21-25	26-30	31-35	Total
No. of subjects	10	68	45	7	130
Percentage	7.69%	52.30%	34.61%	5.384615%	100%

($\chi^2 = 35.6 >$ than critical value = 11.2 at level of significance 0.05, df =3) As Chi- square value of the above data is 35.6 greater than critical value is 11.2 at 0.05 level of significance, the result is significant. So there is difference in *Prakruti* wise distribution of PCOS. PCOS is mostly prevalent in the young reproductive age group. In this study maximum number of PCOS subjects were found in range of 21-25 years is.

Table No. 2: Prakruti wise distribution.

Prakruti	VP	VK	PV	PK	KV	KP	Total
No. of subjects	13	14	8	15	42	38	130
Percentage %	10%	10.769	6.153	11.538	32.307	29.230	100%

($\chi^2=49.88 >$ than critical value =15.29 at level of significance 0.05, $df=5$) As Chi- square value of the above data is 49.88 greater than critical value is 15.29 at 0.05 level of significance, the result is significant. So there is difference in *Prakruti* wise distribution of PCOS.

Table No. 3: Pain during Menstruation in Doshaj Prakruti.

	Mild pain	Painful	Painless	Total
VP+VK	16	11	0	27
PV+PK	10	1	12	23
KV+KP	50	9	21	80
total	76	21	33	130
%	58.46%	16.15%	25.38%	100%

($\chi^2=23.2047$, $P=0.000115 < 0.05$), As Chi- square value of the above data is 23.2047 and P value (0.000115) is less than 0.05, the result is significant. So there is difference in *Prakruti* wise menstrual pain.

Table No. 4 Menstrual bleeding pattern in Doshaj Prakruti.

Prakruti	Heavy	Scanty	Medium	total
VP+VK	4	18	5	27(20.76%)
PK+PV	16	1	6	23(17.69%)
KP+KV	2	40	38	80(61.53%)
Total	22	59	49	130
%	16.92%	45.38%	37.69%	100%

($\chi^2=64.669$, $P=0.00001 < 0.05$), As Chi- square value of the above data is 64.669 and P value is (0.00001) less than 0.05, result is significant. So there is difference in *Prakruti* wise bleeding pattern in PCOS. In this study maximum no of patients were having scanty bleeding found in in *Kapha Pradhan* group. Heavy bleeding found in *Pittapradhan prakruti*.

Table No. 5 BMI Wise Distribution.

Prakruti	BMI Under weight<18	Normal 18-22.9	over weight 23-24.9	Obese 25-29.9	Risk zone >30	Total
VP+VK	9	15	3	0	0	27
PV+PK	0	6	6	9	2	23
KV+KP	0	21	22	29	8	80
Total	9	42	31	38	10	130
%	6.92%	32.30%	23.84%	29.23%	7.69%	100%

($\chi^2=54.9$, $P=0.0001 < 0.05$) As Chi- square value of the above data is 54.9 and P value is less than 0.05, result is significant. So, there is difference in *Prakruti* wise distribution of BMI of

PCOS patient. In this study maximum number of obesity were found in *Kapha Pradhan* group. 9(6.92%) were under weight. 42(32.30%) were in normal BMI. 31(23.84%) were overweight BMI. 38(29.23%) were in obese BMI. 10(7.69%) were in risk zone BMI.

Table No. 6: Hirsutism in different *Prakruti*.

Hirsutism	VP	VK	PV	PK	KV	KP	total	%
Yes	6	5	6	10	20	25	72	55.38%
No	7	9	2	5	18	17	58	44.61%
total	13	14	8	15	38	42	130	100%

($\chi^2 = 5.07$, $P=0.408 >0.05$) As Chi- square value of the above data is 5.07 and P value is greater than 0.05, result is insignificant. So there is no co-relation between *Prakruti* wise distributions of hirsutism. In this study maximum no. of hirsutism were found in *KP* group.

Above table shows observed frequency of Hirsutism in different *Doshaj Prakruti*. Out of 130 subjects in 72(55.38%) subjects hirsutism were found. In 58(44.61%) subjects hirsutism were not found.

Table No. 7: Acne *Prakruti* wise (Yes/No).

Acne	VP	VK	PV	PK	KV	KP	total	%
Yes	3	1	5	9	6	10	34	26.15%
No	10	13	3	6	36	28	96	73.84%
total	13	14	8	15	42	38	130	100%

($\chi^2=20.1$, $P=0.001 <0.05$) As Chi- square value of the above data is 20.1 and P value is less than 0.05, result is significant. So, there is difference in *Prakruti* wise distribution of acne. In this study maximum no. of acne were found in *KP* group, then in *PK* group. Out of 130 subjects 34(26.15%) subjects were having acne. 96(73.84%) subjects were not having acne.

DISCUSSION

(1) **Age:** 21-25 age group is in *Pitta* predominance *Avastha* i.e. *Madhyamavstha*. *Acharya Vagbhat* has told that *Pitta Vitiates Rakta Dhatu* which leads to *Anartava*^[4] (2) ***Prakruti* wise PCOS:** In PCOS *Kapha* dominant *Granthis* are seen in ovary. *Granthis* develop when there is obstruction in the *Srotasa* with *Guru* and *Snigdha Guna* of *Kapha Dosha*. This *Granthis* with a strong *Kapha* platform inhibits the *Artava Pravrutti* leading to *Artava Avarodh*. PCOS features can be co-related with the features of *Kapha Medojanya Vikara*. So by consuming the *Dravya, Guna, Karma Samanya Hetu* by *Kapha* dominant *Prakruti* enhances more *kapah* and *Meda* in the body. Therefore *Kapha* dominant *Prakruti* may be

more prone to polycystic ovary.^[5] **(3) Menstrual pain:** *Vata Dosha* is the root cause of Pain. So, it might be the reason behind, *Vata* predominant *Prakruti* having maximum rate of Painful menstruation. *Ruksha, Chal, Khara, Shita* properties of *Vata Dosha* causes pain in the pelvic region while menstruating in female. *Drava, Sara, Ushna* properties of *Pitta Dosha* are responsible for painless bleeding while menstruation. So it might be the reason behind maximum rate of painless bleeding found in *Pitta* predominant *Prakruti* subjects. Sometimes, mild pain is a normal thing while menstruating. It is the indication of normalcy of *Apan Vayu Karma* like *Anulomana* in the form of *Artava Nishkramana*.^[6] **(4) Menstrual bleeding pattern:** *Mitthya Ahaar Vihara* (i.e. Today's sedentary life style and junk food) causes production of "Ama" in the body, as well as it affects *Tridosha*. *Ama* is the root cause of all diseases. Provocated *Pitta* associated with *Ama* is responsible for heavy menstruation. *Artava* is *Agneya* in nature. *Ushna, Tikshna, Drava, Sara, Guna* of *Sam Pitta Dosha* causes *Attyartava* (heavy menstruation). Provocated *Sama Kapha* due to its *Snigdha, Picchil, Manda, Guna* causes obstruction of *Vata Dosha* in the *Artav-vaha Srotasa*. Due to *Veg Dharana* and *Kapha Uplepa* in the *Srotasa*; *Apana Vayu* gets upward direction i.e. *Udavarta* of *Apan Vayu*, leads to impairment in *Artava Nishkramanakriya*. It is manifested by symptom like *Anartava* (amenorrhea), *Alpartava* (scanty menstruation). As well as due to *Ruksha Guna* of *Vata* with co-operation of *Ushna* and *Tikshna Guna* of *Pitta* causes scanty menstruation. Medium or normal menstruation is the indication of proper function of *Apan Vayu*.^[7] **(5) High BMI/ Obesity:** It is an important feature associated with enlarged polycystic ovary. It also induces insulin resistance. Fat cells secrete leptin hormone which triggers the LH production. High LH causes hypertrophy of theca cell of ovary. It results excessive production of androgen by theca cell.^[8] According to *Ayurveda Kapha* predominant factors are responsible for Obesity, *Granthi* and *Prameh* disease. So, it might be the reason behind that, maximum PCOS subjects were found in *Kapha* predominant *Prakruti*. Also stated that *Sthaulya* (Obesity) and *Prameh* is the *Kaphaj Nanatmak Vikara*, which is associated with PCOS. It means there is co-relation between *Kapha* predominant *Prakruti* and PCOS. **(6) Hirsutism:** It can be coincides with the "Atiloma" *laxana* in *Ashtoninditiya Purush*. Still exact explanation behind *Atiloma* is not explained in detail in *Ayurveda* texts. According to modern science excessive androgen level is the cause behind that. Hairs on the whole body part except eye lead, axilla, pubic hair, have more sensitivity towards androgen hormone.^[9] So, there is a need to study androgen sensitivity in different *Doshaj Prakruti* with large number of sample. It may give different results. **(7) Acne:** Manifestation of acne is the premonitory symptom in PCOS. PCOS acne is caused by insulin resistance, excess testosterone, stress etc. Patient with

increasing BMI have risk of insulin resistance in PCOS. Hyperinsulinemia massively increases the sebum production and enhances the ovary to produce more androgen. Excess sebum production causes subsequently infection, leads to acne. It can be correlated with *Mukhdushika*. *Vagbhata Acharya* has stated that *Meda Dhatu* gets vitiated in acne. Also in PCOS *Meda Dhatu* gets vitiated.^[10]

CONCLUSION

Based upon the observation, results and discussion the following conclusions are drawn.

1. Polycystic Ovarian Syndrome (PCOS) is seen in all kind of *Prakruti*, But *Kapha* dominant *Prakruti* (*KV, KP*) is mostly prone to the PCOS.
2. Females having PCOS with irregular and scanty menstruation i.e. *Alpartava* are mostly associated with *Kapha* dominant *Prakruti* due to its *Avrodhjanya* property.
3. Females having PCOS with irregular and heavy menstruation are mostly associated with *Pitta* dominant *Prakruti* due to *Ushna, Drav, Sara Guna*.
4. *Vat* dominant *Prakruti* is mostly prone to Painful menstruation in PCOS.
5. High BMI, Risk zone of BMI is mostly associated with *Kapha* dominant *Prakruti* due to *Guru Guna* in the body.
6. *Kapha* dominant *Prakruti* is mostly prone to hirsutism. Exact reason or explanation is unknown, so there is need to study it separately in different *Doshaj Prakruti* with androgen sensitivity. According to modern science increased androgen sensitivity leads to Hirsutism.
7. *Kapha Pradhan Prakruti* is mostly prone to Acne. High BMI i.e. excess *Meda Dushti* responsible for it.
8. It is *Santarpanjanya* disorder. So, by diagnosing *Kapha Prakruti* helps to advise diet and regimen opposite to their attributes of *Doshaj Prakruti* i.e principle of "*Viparit Gunestesham*." Also *Panchakarma* procedures are necessary for better results like *Vaman, Virechan and Basti* for *Kapha, Pitta* and *Vata Dosha* respectively.

REFERENCES

1. Dr. Prof. Ajaykumar Sharma, Dr. Vinod Kumar Gautam, Diagnostic Method in Ayurveda, Chaukhamba Vishwabharati 2008 Dashavidha pariksha chapter 7th ch.vi. 8/94, Page no 98.
2. Prof. K.R. Shrikantamurthy, Clinical Methods in Ayurveda, Chaukhamba Orientalia Varanasi 2008, chapter 4th Prakruti Pariksha Examination of the normals, page no: 77.
3. Internate wikipwdia, Pubmed.
4. Vd. Premvati. V. Tivari, Ayurvediay Prasutitantra Evam Striroga, Second Part, Chaukhamba Prakashan Varanasi, Page No. 359-60.

5. Dr. S. Gopakumar, Viashwanar- Clinical presentaion of endocrine disorder, Series 3 first edition july 2015, Kannur Dt. Kerala-670581), Page No. 15.
6. Dr. Brahmanand, Astanga Hridayam with Nirmala hindi Commentary edited by Tripathi, published by Chaukhamba Sanskrit Pratishthan, Delhi, 2009, Page No. 40.
7. 8. 9. www.planetayurveda.com and www.Sepalika.com.
10. Vaidya Yashvant. Govind Joshi, Kayachikitsa, Pune sahitya vitaran, Chintamani printer, Edition fourth 1 sept. 2001, Chapter 18th Kshudrarog, Page No.248.