

**A NON COMPARATIVE SURVEY STUDY FOR POSSIBLE ETIOLOGICAL FACTORS
OF PCOS AND CLINICAL DIAGNOSTIC MEASURES W.S.R. ARTAV DUSHTI**Dr. Pandit D. Kale*¹ and Dr. L. P. Dei²¹Second Year Ph.D. (Ayu.) Scholar, Department of Streerog & Prasutitantra, I.P.G.T. & R.A., G.A.U., Jamnagar, Gujarat, India.²H.O.D., Department of Streerog & Prasutitantra, I.P.G.T. & R.A., G.A.U., Jamnagar, Gujarat, India.***Corresponding Author: Dr. Pandit D. Kale**

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ABSTRACT

Survey studies are descriptive studies with data collection methods. They are used to describe the causes of disease or the results of medical intervention, to assess the prevalence of acute or chronic conditions. Survey studies may involve special data collection, including questions about the past. Polycystic ovary syndrome (PCOS) is a common endocrinopathy in women that in its simplest form consists of unexplained hyper androgenic chronic anovulation. This syndrome was first described by Stein and Leventhal. This particular feminine disorder is not described directly in ayurvedic text but some *Aartav Dushti* and *Yonivyapada* nearly resemble to the PCOS associated features. There is few work has been carried out yet to evaluate this, so this survey was carried out for prevalence, assessment of variations in symptoms and their severity, to know about complication and heredity of disease.

KEYWORDS: PCOS, *Artav Dushti*, *Yonivyapad*, Anovulation.**INTRODUCTION**

The survey is a method for collecting information or data as reported by individuals. Surveys are questionnaires (or a series of questions) that are administered to research participants who answer the questions themselves.^[1] In research of human subjects, a survey is a list of questions aimed at extracting specific data from a particular group of people.^[2] Unlike case-control studies, they are used to describe the causes of disease or the results of medical intervention, to assess the prevalence of acute or chronic conditions, about absolute risks and not only relative risks.^[3] Also described as censuses; survey studies may involve special data collection, including questions about the past and rely on data originally collected for other purposes.^[4] Surveys are a useful tool for gauging the health of a population.^[5]

Polycystic Ovary Syndrome (PCOS) is endocrine disorder more common in women of reproductive age. Women's with PCOS have sign and symptoms like obesity, irregular menses, acne and hyperandrogenism. In *Ayurveda Vata Kaphaja Artava Dushti* described as *Granthibhuta Artava Dushti* which is correlated with PCOS. There is no direct reference for aetiology and pathogenesis of PCOS in ayurveda. As per *Ayurveda* pathogenesis and line of treatment depends on *tridosha* and *Prakruti*. There is no work has been carried out yet to evaluate this, so to know prevalence, assessment of

variations in symptoms and their severity this survey was carried out.

AIMS AND OBJECTIVES

To develop a standard clinical features for diagnosis of PCOS (w.s.r. to *Artavdushti*) and find out its prevalence in various age group of female & find out its complications among the Patients attending OPD, IPGT & RA.

MATERIALS AND METHODS

The present study was carried out as a non-comparative survey study. For possible etiological factors for PCOS and clinical diagnostic measures of VKAD literary search was carried out. Thus based on this a special survey questionnaire was constructed to assess the severity of PCOS. Standard proforma for assessment of *Prakriti*^[6] was adopted. Survey was carried out on clinically diagnosed cases of *Vata-Kaphaja Artava Dushti (VKAD)* w.s.r to PCOS, among 300 women of 12-40 years age, attending the OPD and IPD; Department of *Stree Roga* and *Prasooti Tantra*, I.P.G.T. & RA, GAU, Jamnagar.

In present study women were asked about general information like age, sex and habitat. Also any history of past medication like Ayurvedic, Allopathic medicine, Surgery or Others was noted. A brief history of menarche, menstrual abnormalities, obstetrical,

gynaecological history, contraception history and other associated complaints was taken. General examination was carried out of height, weight for BMI and BP, Pulse were measured. For *Prakriti* assessment the details about appetite, Habit of taking food, sleep pattern, memory and behavioural habits were assessed. Also questionnaires' related to PCOS was note down to access the etiological factors, hereditary history and sign symptoms of PCOS.

PROFORMA

The proforma was prepared so as to yield the following points about the disease-

- Age of onset of the disease.

OBSERVATIONS

1. Observation on Age

Table.01: Age wise distribution of 300 patients

Sr. No.	Age Groups (years)	No. of patients	Percentage %
1	18-20	40	13.33
2	21-30	221	73.67
3	31 -40	39	13.00
Total		300	100



Age: Among 300 patients maximum cases 73.67% were found in the age group of 18-20 years. The next age group was 21-30 years 13.33% and 13% cases belonged to age group of 31-40 years. (Table. 01).

2. Observation on *Poorva Chikitsa Vrittanta* (Past Treatment History)

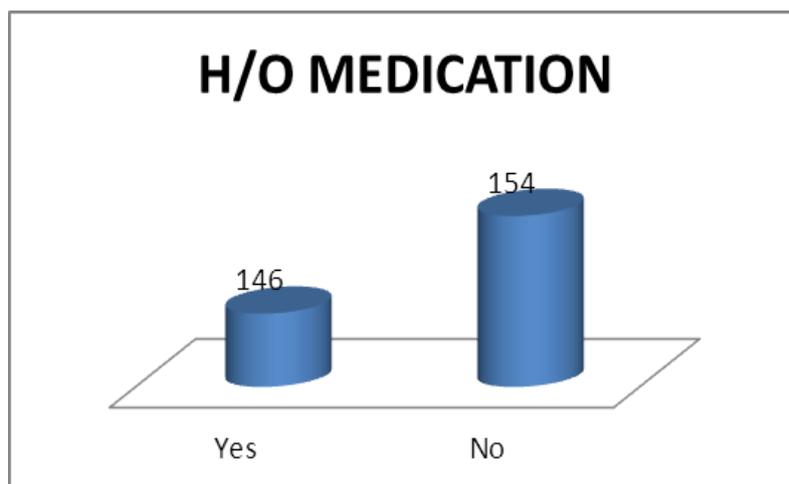
Table. 02: Past treatment history wise distribution of 300 patients of PCOS

	H/O MEDICATION		
	Yes	No	
Total	146	154	300
Percent%	48.67	51.33	100

- Chronicity of the disease.
- Chief complaints of the disease.
- Family history
- Possible *Nidana* (causative factor) of the disease.
- Relation of *Prakriti*.
- Complication of PCOS.

ASSESSMENT PARAMETERS

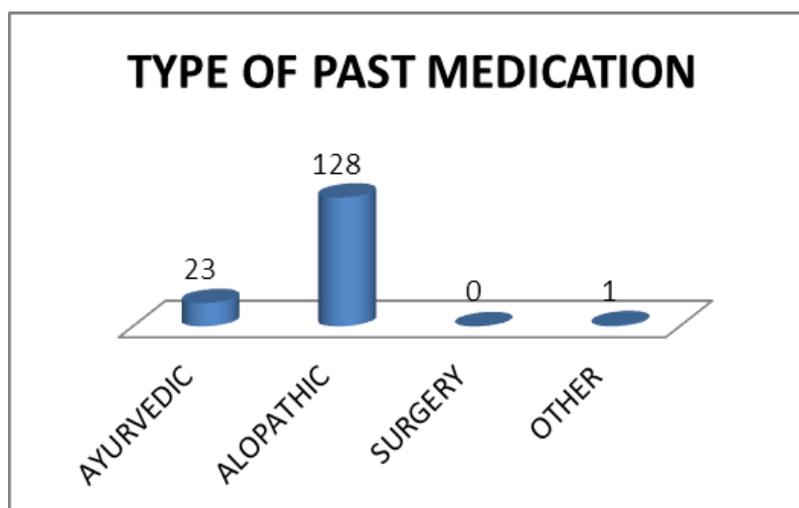
Assessment was done on the basis of percentage incidence of etiological factors, clinical features and complications of PCOS in the sample population with the help of specially designed PCOS Questionnaire.



In present study total of 48.67% patients had history of past treatment history. And 51.33% patients had no past treatment history. (Table.02).

Table.03: Type of past treatment wise distribution

TYPE OF PAST MEDICATION					
Type of Medication	AYURVEDIC	ALOPATHIC	SURGERY	OTHER	TOTAL
No.	23	128	0	1	152
Percentage %	15.13	84.21	0	0.65	100

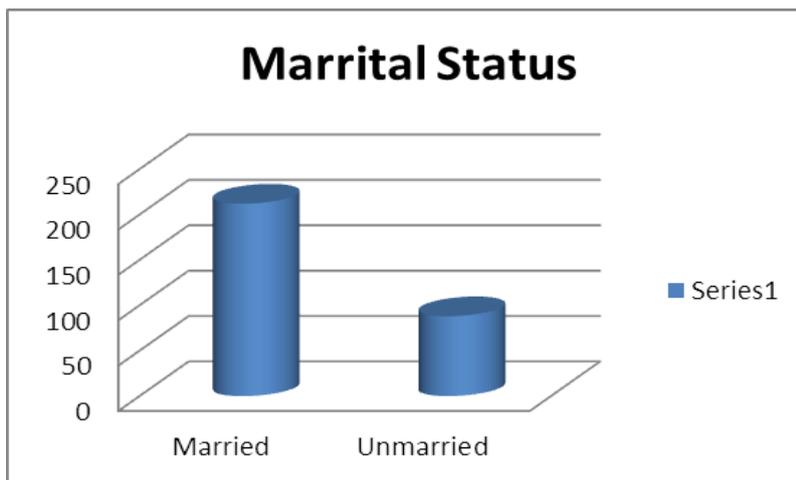


As per type of treatment 15.13% patients had history of Ayurvedic treatment. Along with 84.21% patient had history of past Allopathic medication and 0.65% patient had history other treatment (Homeopathy). (Table.03).

3. Observation on Marital status of patient

Table. 4: Marital status of patient

Sr. No.	Marital status	No. of Patient	Percentage
1	Married	212	70.67
2	Unmarried	88	29.33
Total		300	100

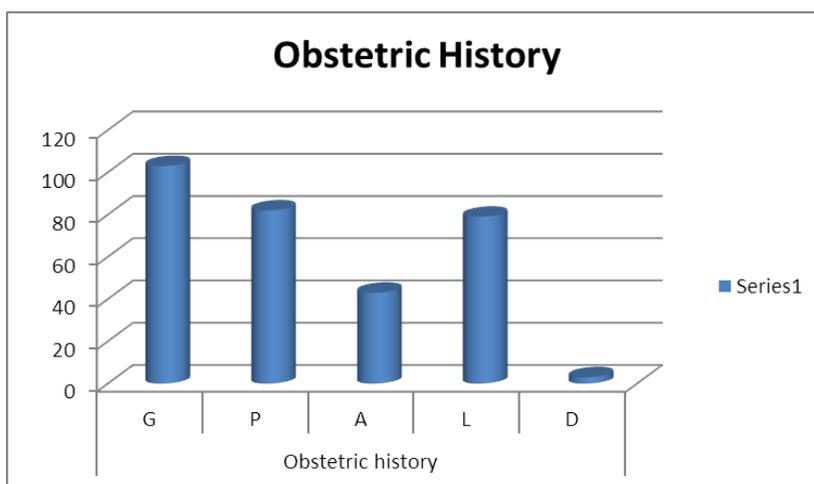


Marital status: Maximum 70.67% patients were married and 29.33% were unmarried. (Table. 04).

04. Observation on *Prasava Vrittanta* (Obstetrical History)

Table.5: Obstetrical history wise distribution of 300 patients of PCOS

Obstetric History	No. of Patient	%
Gravid women	103	34.33
Parous women	82	27.33
Abortion	43	14.33
Living Children	79	26.33
Dead Children	3	01.00



Observation on gravidity showed 34.33% patients were gravid women, but 27.33% were parous and 14.33% had living children. An incidence of 26.33% abortions were observed among the study population. (Table. 05).

05. Observation on Contraceptive Practices

Table.6: Contraceptive practices among 300 Patients

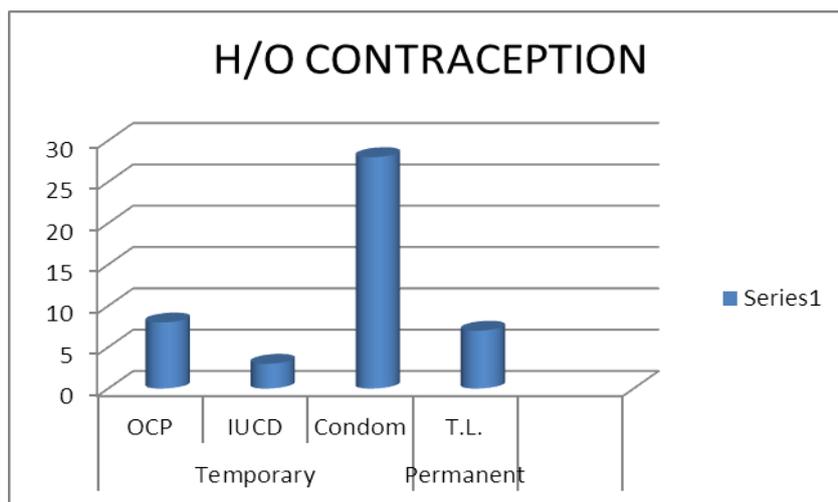
H/O CONTRACEPTION		
	Yes	No
Total	46	254
Percentage %	15.33	84.67



Contraceptive measures were used by 15.33% patients in present study; whereas 84.67% patients didn't have any contraceptive practise (Table.06).

Table.7: Type of Contraceptive practices

TYPE OF CONTRACEPTION				
Temporary			Permanent	Total
OCP	IUCD	Condom	T.L.	
8	3	28	7	46
17.39%	6.52%	60.86%	15.21%	100

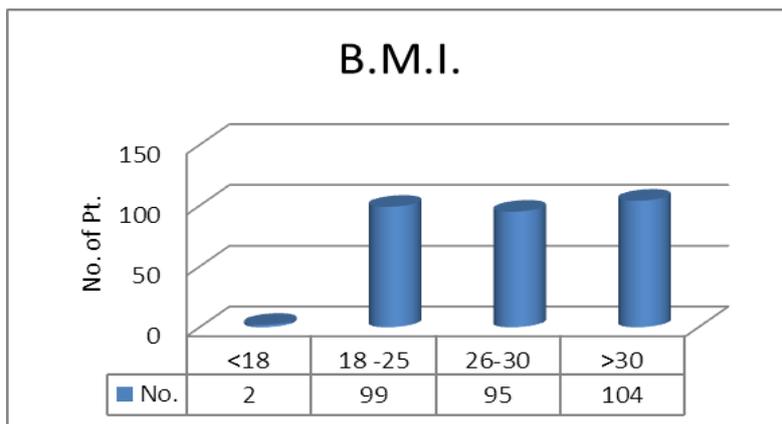


According to type of contraceptive in temporary methods 17.39% patient had history of OCP, 6.52% patient had IUCD and 60.86% had Condom as contraceptive (Table No. 07).

06. Observation on B.M.I.

Table 8: Obesity as per BMI in 300 patients

BMI					
BMI Score	<18	18 -25	26-30	>30	Total
No.	2	99	95	104	300
Percentage	0.67%	33%	31.67%	34.67%	100



A total of 34.67% patients had B.M.I. more than 30; followed by 33% patients had B.M.I. between 26 to 30, while 31.67% patient with B.M.I. between 18 to 25 and 0.67% in had B.M.I. less than 18. (Table 08).

06. Observation on General Examination

Table. 09: General Examination

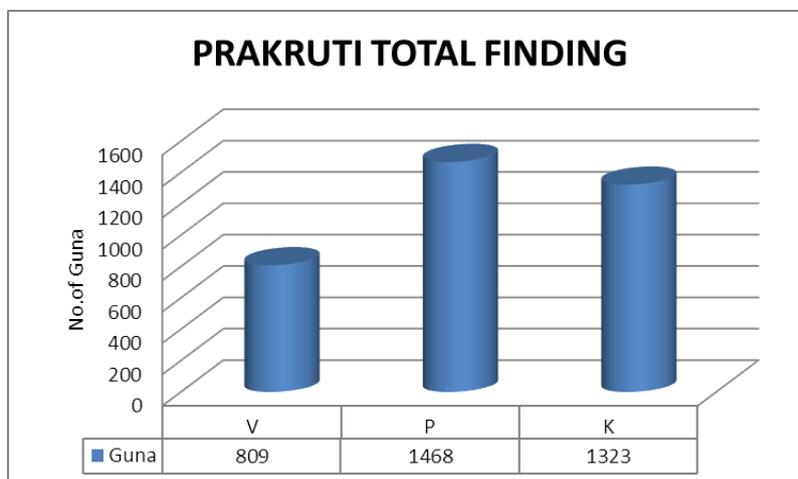
	BP (mm of Hg)		Pulse
	S	D	/min
Average	118.46	76.22	77.47

In general examination of patient had average Systolic Blood Pressure 118.46 and 76.22 mm of Hg Diastolic Blood Pressure. Pulse was found an average 77.47 per minute. (Table. 09).

07. Observation on Prakriti

Table. 10: Prakriti wise distribution of 300 patients of PCOS

PRAKRUTI TOTAL FINDING				
Dosha	V	P	K	Total
No. of Dosha Lakshana	809	1468	1323	3600
Percentage	22.47%	40.78%	36.75%	100

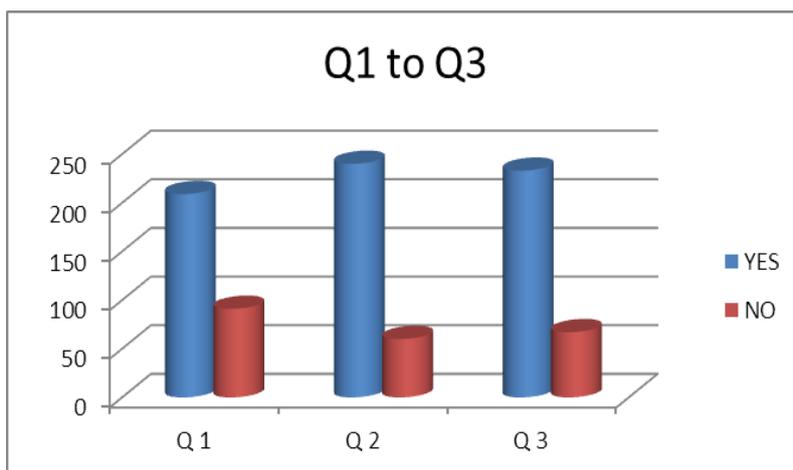


Sharira Prakriti: Maximum i.e. 40.78% patients had *Pitta Prakriti Lakshana*, *Kapha Prakriti Lakshana* are found in 36.75% and only 22.477% of *Vata Prakriti Lakshana*. (Table. 10).

08. Observation on PCOS Survey Questionnaire

Table. 11: Distribution of PCOS Survey Q1 to Q3

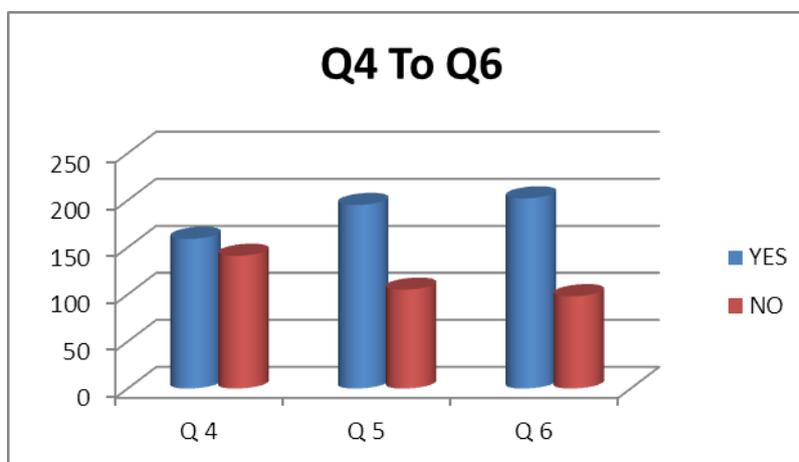
PCOS Survey Q1 to Q3			
Que. No.	Q 1	Q 2	Q 3
YES	209	240	233
NO	91	60	67
TOTAL	300	300	300
YES Percentage	69.67%	80%	77.67%



In present survey 69.67% patient had crave for carbohydrates and sugar. 80% patient had complaint of weight gain and 77.67% patient had difficulty with losing weight. (Table. 11).

Table.12: Distribution of PCOS Survey Q4 to Q5

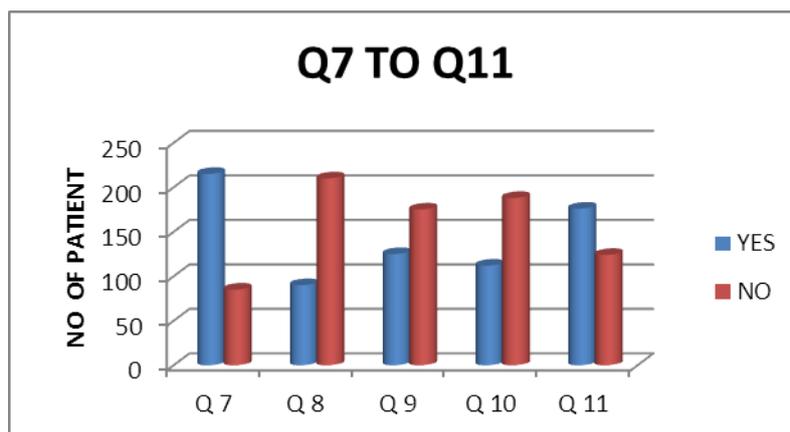
PCOS Survey Q4 to Q5			
Que. No.	Q 4	Q 5	Q 6
YES	159	195	202
NO	141	105	98
TOTAL	300	300	300
YES Percentage	53%	65%	67.33%



In survey 53% patient had skin problem like dark pigmentation (Acanthosis nigricans), thickened skin and creases around neck. Also 65% patient had problems with Acne which are worse during their menses in 67.33% patients. (Table. 12).

Table.13: Distribution of PCOS Survey Q7 to Q11

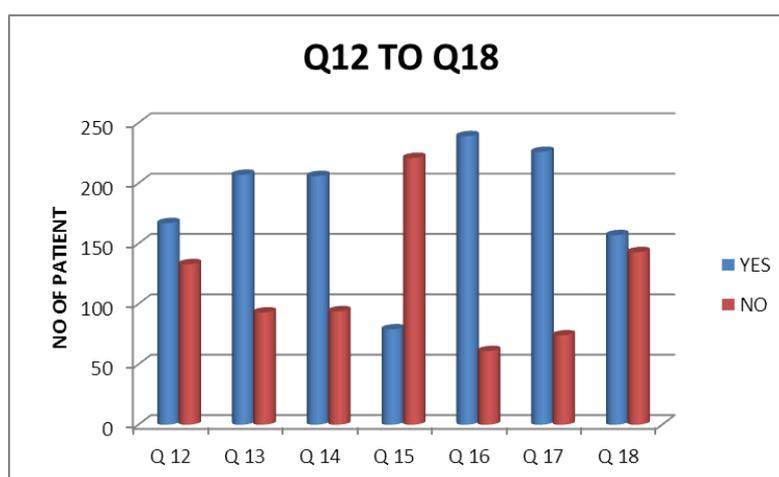
PCOS Survey Q7 to Q11					
Que. No.	Q 7	Q 8	Q 9	Q 10	Q 11
YES	215	90	125	112	176
NO	85	210	175	188	124
TOTAL	300	300	300	300	300
YES Percentage	71.67%	30%	41.67%	37.33%	58.67%



Hirsutism is another main skin problem with excess facial hair in 71.67% patient, unusual amount of hair on breasts present in 30% patient, while 41.67% patient had hair growth on upper thighs and 37.33% patient had pubic hair grows up to abdomen and around the navel. Excessive hair fall, thinning of hair seen in 58.67% patient. (Table. 13).

Table.14: Distribution of PCOS Survey Q12 to Q18

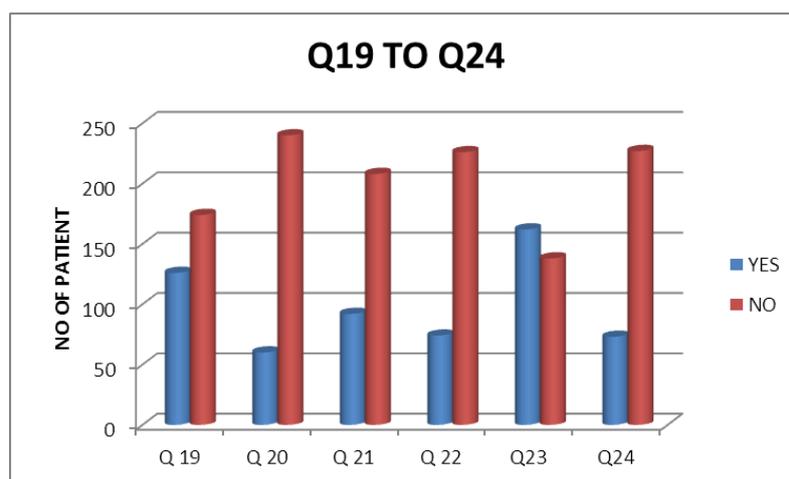
PCOS Survey Q12 to Q18							
Que. No.	Q 12	Q 13	Q 14	Q 15	Q 16	Q 17	Q 18
YES	167	207	206	79	239	226	157
NO	133	93	94	221	61	74	143
TOTAL	300	300	300	300	300	300	300
YES Percentage	55.67%	69%	68.67%	26.33%	79.67%	75.33%	52.33%



In current study 55.67% patient had history of late menarche. In menstrual complaints 69% patient had unpredictable periods, 68.67% patient had menstrual periods longer than 35 days while only 26.33% patient had heavy periods. Progressively reduced menstrual frequency and quantity in 79.67% patient, 75.33% patient with pelvic pain in menses. In 52.33% patients mensruation came only after using hormonal pills. (Table. 14).

Table.15: Distribution of PCOS Survey Q19 to Q24

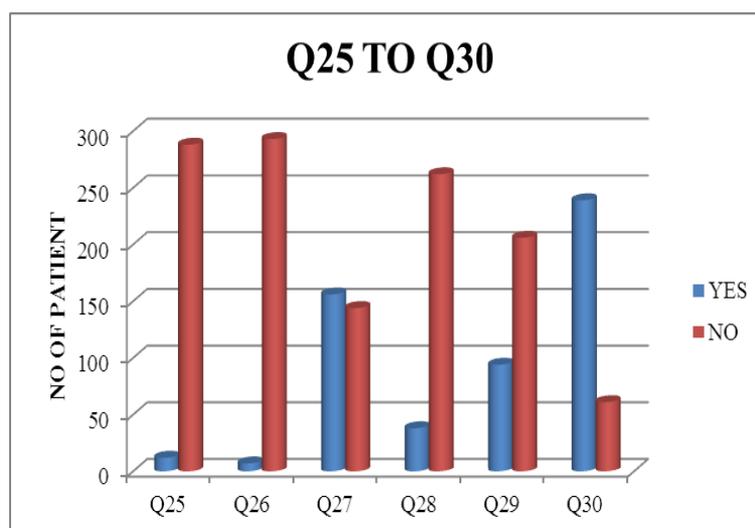
PCOS Survey Q19 to Q24						
Que. No.	Q 19	Q 20	Q 21	Q 22	Q23	Q24
YES	126	60	92	74	162	73
NO	174	240	208	226	138	227
TOTAL	300	300	300	300	300	300
YES Percentage	42%	20%	30.67%	24.67%	54%	24.33%



In survey patient had family history of Diabetes, Cardiovascular disease, Acanthosis nigricans, Obesity and PCOS as follows 42%, 20%, 30.67%, 24.67%, 54% and 24.33% respectively. (Table. 15).

Table.16: Distribution of PCOS Survey Q25 to Q30

PCOS Survey Q25 to Q30						
Que. No.	Q25	Q26	Q27	Q28	Q29	Q30
YES	12	7	156	38	94	239
NO	288	293	144	262	206	61
YES Percentage	4%	2.33%	52%	12.67%	31.33%	79.67%
TOTAL	300	300	300	300	300	300



In past history 4% patient had High Blood Pressure and 2.33% patient had Gestational Diabetes. While 52% patient had difficulties getting pregnant and 12.67% a history of spontaneous abortion. Patient with USG report of PCOS are 31.33% and 79.67% patient had fast food, cold drinks and cold (refrigerated) water in diet. (Table. 16).

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