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PREVALENCE OF POLYCYSTIC OVARIES AT NISHTAR HOSPITAL MULTAN

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ABSTRACT

Polycystic ovaries are a hormonal disorder and is most significant reproductive endocrinopathy of the women in their childbearing age, whose prevalence is 5-10%. It ia a heterogeneous disease which haS different variable manifestation . It is the common cause of excess level of androgen and irregularity of menstrual periods in women. **Objectives:** To determine the prevalence of polycystic ovaries in two different age groups by ultrasound. **Design, setting and participants:** Cross-sectional study of PCOS and fifty women of different ages at Nishtar Hospital Multan. **Main outcome Measures:** Age group, marital Status, scan of TAS and TVS, presence of PCOS, patient compliance, ovarian Volume, number of follicles and size of large follicle were determined. **Results:** 28 patients were from 18-25 age group which is 56% and the number of patients in the age group of 26-35 is 22 which is 44%. 32 patients were married that is 64%, while 18 patients were unmarried which is 36%. 29 patients were diagnosed with PCOS while 21 subjects did not diagnose with PCOS. 29 patients were diagnosed with PCOS while 21 subjects did not diagnose with PCOS. Only 20 patients have normal ovarian volume while 30 patients have diagnosed with increase ovarian volume. In only 20 patients the number of follicles was less than 12 while on the other hand, for 30 patients the number of follicles was greater than 12. **Conclusion:** PCOS is most common endocrine disorder in women of different ages especially, during reproductive ages. The number of follicles also increased during this disease while some other factors are that women with PCOS are also diagnosed with irregular menstrual period.

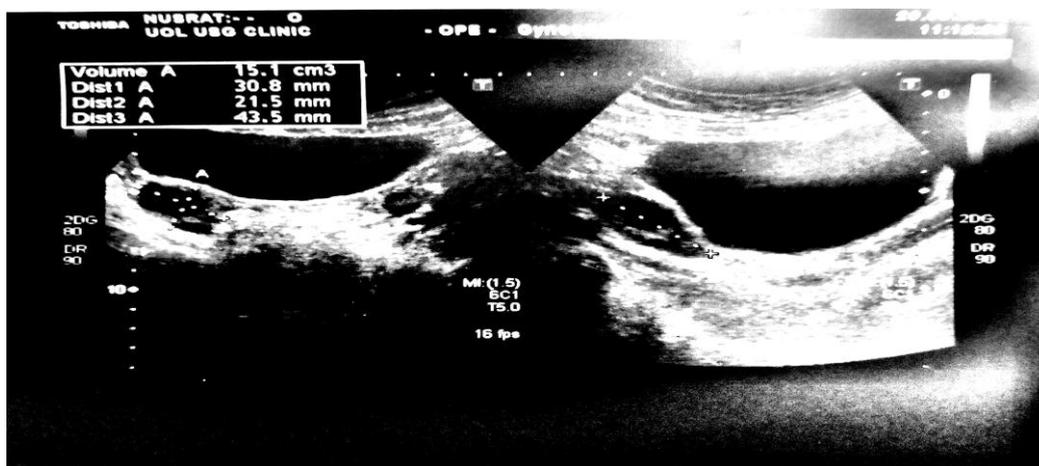**KEYWORDS:** Polycystic ovaries, TAS and TVS.

INTRODUCTION

Polycystic ovaries are a hormonal disorder and is most significant reproductive endocrinopathy of the women in their childbearing age,[1] whose prevalence is 5-10%. It ia a heterogeneous disease which haS different variable manifestation. (Schoemaker, J.J., 1997) It is the common cause of excess level of androgen and irregularity of menstrual periods in women. The manifestation of polycystic ovaries are obesity, hirsutism, acne and irregular menstrual cycle. Polycystic ovary syndrome is the most common type of the reproductive problems in the women and from overall population, it affects between 6.5 and 8 percent of women. Other reproductive problems associated with PCOS are menstrual dysfunction and gonadotropin dynamics. In PCOS, menstrual dysfunction is characterized by oligo or amenorrhea and it is caused by infrequent presence of ovulation or absence of ovulation (Azziz, R.,2009).
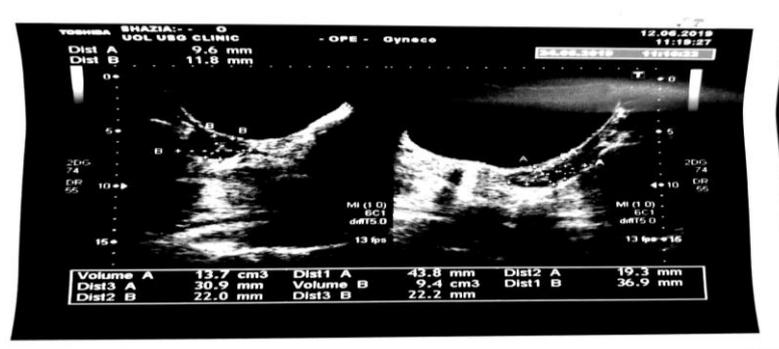
The women that are affected by PCOS may have a possibility to have irregular cycle and normal or slightly delayed menarche(FRANKS, S., 1989). Other women have a possibility of having regular cycles, but after some time their menstrual cycle becomes disturbed and weight gain also takes place. The mechanism of menstrual disturbances not clear, but it has been seen that women who have irregular menstrual period when loss their weight tend to improve their menstrual cycles. Women with PCOS also have possibility to have abnormal gonadotropin secretory dynamics. When blood is frequently sampled, there is an increase in the level of luteinizing hormone (Kiddy, D.S.,1992).

The increase in level of luteinizing hormone relatively depends upon the use of contraceptive pills, frequency of sampling of LH, body mass index, timing of sample relative to last menstrual period and ovarian activity. As a result, the absence of an increase in LH level can not helped in the diagnosis of PCOS(Conway, G., 2014). The exact cause is unclear and early diagnosis of syndrome and its treatment and weight loss can minimize the risk of other long-term complication such as heart disease and diabetes type 2. Symptoms of PCOS include excess level of androgen, irregular periods and polycystic ovaries. In the past, the diagnosis of PCOS was depended on combination (Lukanova, A. 2005).

PATIENTS AND METHODS

The purpose of the study is to find the prevalence of Polycystic ovaries in two different age groups and ultrasound method was used for this study. The prevalence of PCOS was determined in healthy women of different origins. Polycystic ovaries are a hormonal disorder and is most significant reproductive endocrinopathy of the women in their childbearing. The women that are affected by PCOS may have a possibility to have irregular cycle and normal or slightly delayed menarche (De Leo, V., 2016). Two techniques were used for the study such as Transabdominal Sonography and Transvaginal Sonography. Cross-sectional study design was used and the study was conducted at Nishtar Hospital Multan. The study was conducted in 6 months and fifty women were selected for study. The results showed that PCOS is very common in women during reproductive age and there are also some factors that are affected by PCOS.

RESULTS

28 patients were from 18-25 age group which is 56% and the number of patients in the age group of 26-35 is 22 which is 44%. 32 patients were married that is 64%, while 18 patients were unmarried which is 36%. 29 patients were diagnosed with PCOS while 21 subjects did not diagnose with PCOS. 29 patients were diagnosed with PCOS while 21 subjects did not diagnose with PCOS. Only 20 patients have normal ovarian volume while 30 patients have diagnosed with increase ovarian

volume. In only 20 patients the number of follicles was less than 12 while on the other hand, for 30 patients the number of follicles was greater than 12.

5.1 Age group of patients

Age	Frequency	percentage
18 to 25	28	56%
26 to 35	22	44%

Patient compliance

Patient compliance	Frequency	Percentage
Amenorrhea	8	16
Oligomenorrhea	5	10
Infertility	10	20
Obesity	7	14
Abdominal Pain	20	40

Scan	Frequency	Percent
TAS	30	60
TVS	20	40
Total	50	100

Presence of PCOS

Pcos present	Frequency	Percentage
Yes	29	58
No	21	42
Total	50	100

DISCUSSION

A study was conducted to determine the prevalence of polycystic ovaries in two different age groups by ultrasound. 50 subjects were collected and simple cross-sectional study was used to perform the test. Results showed that PCOS is most common among the age group of 18 to 25. The similar findings were made by Ritta Koivunen et al. which published a study in which healthy females were divided into two groups below 35 and above 35. The study showed that prevalence of PCOS is most common among age below 35. The prevalance of PCOS in women with the age below 35 years was 21.6%, while its prevalance in the age above 35 years was 7.8%. Similar findings were also made a study that was published in 2008-2010. The study showed that prevalence of PCOS is 17.6% is higher in the age below 35. It was further suggested that when age increased the risk of PCOS decreased(Janghorbani, M., 2007).

The study conducted that the rate of PCOS is higher in married women that is 64% as compared to unmarried women that is 36%. It was found that PCOS is directly related with mental, physical and social status and when these stresses increase the chances of prevalence also increase. Thus, there are more chances of PCOS in married women as compare to unmarried women(Cabral, P.U., 2013).

The study showed that prevalence of PCOS is increasing day by day. 50 subjects were selected for the study from which 29 subjects were diagnosed with PCOS while remaining 21 subjects were not diagnosed with PCOS. The results are similar to a study that was conducted by Wendy A. March in 2009 according to which the prevalence of PCOS is increasing by 27% from last few years and its early detection is being a problem for the proper treatment of PCOS. It is a endocrine disorder and many studies published that endocrine disorders are increasing from last few decades due to disturbance in physical conditions such as irregularities in food consumptions and changing of eating habits(Crain, D.A., 2008).

The results determined that patients with PCOS also showed some other problems or disorders such as amenorrhea, oligomenorrhea, infertility, obesity and abdominal pain. The total number of patients was 50 from which 8 patients deal with amenorrhea while 5 patients complaint for oligomenorrhea. Infertility was also found in 10 patients while obesity was present in 7 patients. The most significant patient complaint was abdominal pain which was present in 20 patients(Laven, J.S., 2002).

The results are exactly similar to findings that were made by Fauzia Haq et al. according to which the most important compliance among with PCOS is obesity. Furthermore, study also showed that there are 17.6% more chances of infertility with PCOS. Francicso

Alvarez-Blasco et al also found same results regarding to obesity. It was determined that obese people have 71.7% more chance of diagnosis of PCOS because obesity is a risk factor of PCOS(Álvarez-Blasco, F., 2006).

A study was published by Ram Nidhi MSc Yoga et al. in August 2011 which used 460 girls to check other compliance with PCOS. The results showed that from 460 girls, one girl (0.22%) had oligo or amenorrhea with the clinical hyperandrogenism, one girl (0.22%) has polycystic ovaries, 29 girls (6.3%) had oligomenorrhea with the polycystic ovaries while 11 girls had oligomenorrhea with the polycystic ovaries in the presence of clinical hyperandrogenism. 42 (9.13%) have girls were satisfied with Rotterdam's criteria for polycystic Ovarian Syndrome, which increased to 50.56 (10.97%).

CONCLUSION

PCOS is most common endocrine disorder in women of different ages two age groups were studed in this research 18 to 25 and 25 to 35 result concluded was PCOS present in all age groups especially, during reproductive age respondants from age 18 to 25 were more having this disorder. The number of follicles also increased during this disease while some other factors are that women with PCOS are also diagnosed with irregular menstrual period.

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