

A Study of Clinical Profile and Associated Factors in the Patients of Polycystic Ovarian Syndrome

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Abstract

Introduction: Polycystic ovarian syndrome (PCOS) is the most frequent endocrinological disorder affecting 5-10% of women in the reproductive age. *Aims and Objectives:* To study Clinical profile and Associated Factors in the patients of Polycystic Ovarian Syndrome. *Material and Methodology:* This was cross-sectional study carried out at the OBGY Dept. of the tertiary health care center during the one year duration i.e. March 2015 to March 2016 in all patients who shows clinical features of PCOD were screened with the help of USG attending those who showing multiple cyst on USG with other clinical criteria was diagnosed as patients of PCOD. The detailed history like age and various clinical features and risk factors were asked. During the one year period, total 40 patients were included into study. *Result:* The majority of the patients were in the age group of 20-25 -37.5% followed by 25-30-25% and in the age group of 15-20 were 20%, and in 30-35 were 10% and 35-40 were 7.5%. The most common clinical features were Dysfunctional Uterine Bleeding (DUB) were in 80% followed by Oligomenorrhea in 72.5%, Hirsutism in 62.5%, Obesity in 57.5% , Anemia in 45%, Diabetes in 30%. The most common Associated /risk factors were Obesity (BMI>30) in 62.5% followed by , Diabetes 37.5, F/H of Infertility in 30%, F/H of PCOD in 27.5%, Lack

of physical exercise in 22.5%, Eruption of Wisdom teeth in 17.5%. *Conclusion:* It can be concluded from our study that average age of the patient was 20-25 for the appearance of disease and most common clinical features were Dysfunctional Uterine Bleeding (DUB) followed by Oligomenorrhea Hirsutism and most common Associated / risk factors were Obesity (BMI>30) in 62.5% followed by, Diabetes, F/H of Infertility etc.

Keywords: Polycystic Ovarian Syndrome; Diabetes; Dysfunctional Uterine Bleeding (DUB).

Introduction

Polycystic ovarian syndrome (PCOS) is the most frequent endocrinological disorder affecting 5-10% of women in the reproductive age [1].

Its wide continuum of clinical manifestations such as oligomenorrhea, cosmetic deformities such as hirsutism, alopecia, obesity [2] and the impending fear of infertility with the anxiety of future metabolic complications has a remarkable impact over the psychology [3,4], of the young women.

Further, it is associated with a wide spectrum of morbidity [1,5], including cardiovascular abnormalities, type 2 diabetes mellitus, dyslipidemia, risk of malignancies and infertility [6,7].

Many environmental, ethnic, clinical and genetic [6,7,8] causes have been attributed for its etiopathology, yet it demands further investigation in understanding the disease, which in turn will open new gateways for prevention and treatment.

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Material and Methodology

This was cross-sectional study carried out at the OBGY Dept. of the tertiary health care center during the one year duration i.e. March 2015 to March 2016 in all patients who shows clinical features of PCOD were screened with the help of USG attending those who showing multiple cyst on USG with other clinical criteria was diagnosed as patients of PCOD. The detailed history like age and various clinical features and risk factors were asked. During the one year period, total 40 patients were included into study.

Result

The majority of the patients were in the age group of 20-25 -37.5% followed by 25-30-25% and in the age group of 15-20 were 20%, and in 30-35 were 10% and 35-40 were 7.5%. The most common clinical features were Dysfunctional Uterine Bleeding (DUB) were in 80% followed by Oligomenorrhea in 72.5%, Hirsutism in 62.5%, Obesity in 57.5%, Anemia in 45%, Diabetes in 30%. The most common Associated /risk factors were Obesity (BMI>30) in 62.5% followed by, Diabetes 37.5, F/H of Infertility in 30%, F/H of PCOD in 27.5%, Lack of physical exercise in 22.5% , Eruption of Wisdom teeth in 17.5%.

Table 1: Age wise distribution of the Patients

Age group	No.	Percentage
15-20	8	20
20-25	15	37.5
25-30	10	25
30-35	4	10
35-40	3	7.5
Total	40	100

Table 2: Distribution of the Patients as per the Clinical features

Clinical features	No.	Percentage
Dysfunctional Uterine Bleeding (DUB)	32	80
Oligomenorrhea	29	72.5
Hirsutism	25	62.5
Obesity	23	57.5
Anemia	18	45
Diabetes	12	30

(*More than one clinical features were present in the patients; so, total maybe >40)

Table 3: Distribution of the Patients as per the Associated /risk factors

Risk Factors	No.	Percentage (%)
Obesity (BMI>30)	25	62.5
Diabetes	15	37.5
F/H of Infertility	12	30
F/H of PCOD	11	27.5
Lack of physical exercise	9	22.5
Eruption of Wisdom teeth	7	17.5

*More than one risk factors were present in the patients; so, total maybe >40)

Discussion

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women of reproductive age and is the most common cause of infertility due to anovulation. Various studies have reported a prevalence of 5-10% for PCOS, for the first time in 1935, the classic form of PCOS was described by Ashtyn and Leventhal [8]. It appears that several factors may be involved in its development. Perhaps

the disease exists as a genetic predisposition in the person and its symptoms are exacerbated by environmental factors and lifestyle [9]. PCOS symptoms involve both endocrine and gynecologic system; as amenorrhea or oligo amenorrhoea, hirsutism, obesity, acne, androgenic alopecia and reproductive disorders [10,11]. PCOS is not a disease exclusive to fertility and adolescence period; rather it can be associated with varying effects on a person's life. The main complications of the disease in adolescence are the incidence of amenorrhea, oligo

menorrhoea, hirsutism, obesity, and acne. In fertility ages, the patient's chief complaint is infertility and irregular ovulation. The complications of adolescence ages still exist in this period. In pre-menopausal and postmenopausal ages, this syndrome can increase the risk of type 2 diabetes, hypertension, dyslipidemia, cardiovascular diseases and even endometrial cancer and possibly breast cancer [12].

Etiology of PCOS is still inconclusive due to its complexity. One study attributes its cause to the interaction between genetic and environment factors [13]. Due to the fact that PCOS patients share one [13] significant clinical manifestation of hyperandrogenemia, male hormone has been widely acknowledged as a biomarker for PCOS in recent years. Except for hyperandrogenemia, PCOS also involve obesity, insulin resistance and type 2 diabetes and all of these complications lead to the ovarian production of androgen. Some studies also suggested that adolescent obesity increases the probability of PCOS at a later stage of life and insulin resistance as well as ensuing hyperinsulinemia may directly or indirectly result in LH secretion that leads to hyperandrogenemia [14,15].

In our study we have found that The majority of the patients were in the age group of 20-25 -37.5% followed by 25-30-25% and in the age group of 15-20 were 20%, and in 30-35 were 10% and 35-40 were 7.5%. The most common clinical features were Dysfunctional Uterine Bleeding (DUB) were in 80% followed by Oligomenorrhoea in 72.5%, Hirsutism in 62.5%, Obesity in 57.5%, Anemia in 45%, Diabetes in 30%. The most common Associated /risk factors were Obesity (BMI>30) in 62.5% followed by , Diabetes 37.5, F/H of Infertility in 30%, F/H of PCOD in 27.5% , Lack of physical exercise in 22.5% , Eruption of Wisdom teeth in 17.5%. These findings are similar to Nagaraja Bhuvanashree et al [6] they found that; mean age was 18.57 ± 0.19 (standard error of mean) years. The prevalence of PCOS in Nellore district is 15.4% (95% confidence interval: 10.97-19.83). Higher risk of PCOS was associated with the cesarean mode of delivery (odds ratio [OR] = 4.91, $P < 0.0001$), eruption of at least 1 wisdom tooth (OR = 2.61, $P = 0.025$) and the presence of central obesity (OR = 2.57, $P = 0.05$).

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