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ORIGINAL ARTICLE

Assessment of Cases of Polycystic Ovarian Syndrome in Females- A Clinical Study

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***ABSTRACT*:**
Background: Polycystic ovarian syndrome (PCOS) is one of the most common endocrine disorders in women. The present study was conducted to assess cases of Polycystic ovarian syndrome. **Materials & Methods:** The present study was conducted on 148 females age ranged 17-24 years. The presence of hyper androgenic features and menstrual irregularities (amenorrhoea/ oligomenorrhoea) were recorded. All the patients were physically examined to validate the self-assessed mFG scoring. The diagnosis of PCOS was made on the basis of Rotterdam's criteria. **Results:** Age group 17-19 years had 56 patients, 19-21 years had 72 and 21-24 years had 20 patients. The difference was significant (P< 0.05). Out of 148 females, 72 (48.6%) had PCOS. The mean BMI was 18.97, mFG was 8.63 and average age of onset of menstruation was 12.75. Irregular period was seen in 39%, cyst or increased stroma in ovaries in 25%, Hirsutism (mFG) in 21%, both cyst in ovaries and hirsutism in 23%, both menstrual irregularity and cyst in ovaries in 16%, menstrual irregularity, cyst in ovaries and hirsutism in 4% and both menstrual irregularity and hirsutism in 3%. The difference was significant (P< 0.05). **Conclusion:** PCOS was seen in 48.6% and maximum cases were seen n age group 19-21 years.

Key words: Cyst, Hirsutism, Ovaries, Polycystic Ovarian Syndrome.

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INTRODUCTION

Polycystic ovarian syndrome (PCOS) is one of the most common endocrine disorders in women. The prevalence of polycystic ovarian syndrome ranges from 2.2% to 26% among the endocrine disorders. There are many interacting factors which result in clinical and/or biochemical hyperandrogenism.[1]

The disorder can be morphological (polycystic ovaries) or predominantly biochemical (hyperandrogenemia). Hyperandrogenism, a clinical hallmark of PCOS, can cause inhibition of follicular development, microcysts in the ovaries, an ovulation, and menstrual changes. Polycystic ovaries are slightly larger than normal ovaries and have twice the number of follicles (fluid-filled spaces within the ovary that release the eggs when you ovulate).[2]

The symptoms of PCOS include irregular periods or no periods at all, an increase in facial or body hair (hirsutism), loss of hair on your head, being overweight, experiencing a rapid increase in weight or having difficulty losing weight, oily skin, acne and difficulty becoming pregnant (reduced fertility).[3] Depression and psychological problems can also result from having PCOS. The symptoms vary from woman to woman. Some women have very few mild symptoms, while others are affected more severely by a wider range of symptoms. Gestational Diabetes Mellitus (GDM) poses serious health risks to both the mother and the fetus. So diagnosing PCOS at an early stage in life can help prevent these complications of maternal and child health.[4] The present study was conducted to assess cases of Polycystic ovarian syndrome.

MATERIALS & METHODS

The present study was conducted in the department of Obstetrics & Gynaecology. It comprised of 148 females age ranged 17-24 years. All were informed regarding the study and written consent was obtained. Ethical approval was obtained from institute prior to the study.

General information such as name, age etc. was recorded. The presence of hyper androgenic features and menstrual irregularities (amenorrhoea/ oligomenorrhoea) were recorded. All the patients were physically examined to validate the self-assessed mFG scoring. The diagnosis of PCOS was made on the basis of Rotterdam's criteria. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Age wise distribution of patients

Age group (Years)	Number	P value
17-19	56	0.01
19-21	72	
21-24	20	

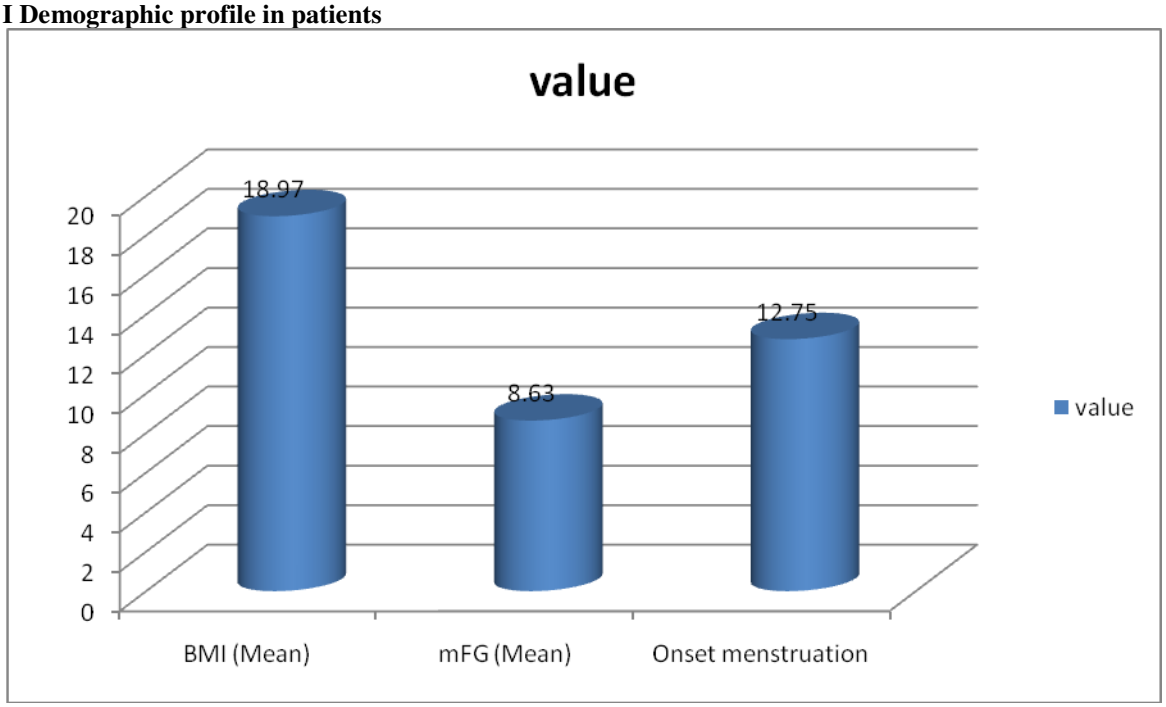
Table I shows that age group 17-19 years had 56 patients, 19-21 years had 72 and 21-24 years had 20 patients. The difference was significant (P< 0.05).

Table II Prevalence of PCOS

Total	PCOS	Percentage
148	72	48.6

Table II shows that out of 148 females, 72 (48.6%) had PCOS.

Graph I Demographic profile in patients



Graph I shows that mean BMI was 18.97, mFG was 8.63 and average age of onset of menstruation was 12.75.

Table III Clinical features with Rotterdam's criteria

Clinical features	Percentage	P value
Irregular periods	39	0.01
Cyst or increased stroma in ovaries	25	
Hirsutism (mFG)	21	
Both cyst in ovaries and hirsutism	23	
Both menstrual irregularity and cyst in ovaries	16	
Menstrual irregularity, cyst in ovaries and hirsutism	4	
Both menstrual irregularity and hirsutism	3	

Table III shows that irregular period was seen in 39%, cyst or increased stroma in ovaries in 25%, Hirsutism (mFG) in 21%, both cyst in ovaries and hirsutism in 23%, both menstrual irregularity and cyst in ovaries in 16%, menstrual irregularity, cyst in ovaries and hirsutism in 4% and both menstrual irregularity and hirsutism in 3%. The difference was significant (P< 0.05).

DISCUSSION

PCOS can be described as an oligogenic disorder in which the interaction of a number of genetic and environmental factors determine the heterogeneous, clinical, and biochemical phenotype.[5] Although the genetic etiology of PCOS remains unknown, a family history of PCOS is relatively common; however, familial links to PCOS are unclear. A lack of phenotypic information prevents a formal segregation analysis. Nonetheless, the current literature suggests that the clustering of PCOS in families resembles an autosomal dominant pattern.[6]

PCOS is a hormonal disorder with a potential to lead to various diseases. It also continues to be a common cause of infertility among women. Although signs and symptoms vary, the three most common factors associated with PCOS include ovulation irregularities, increased androgen levels, and cystic ovaries.[7] Problems with ovulation and elevated androgen levels occur in the majority of women with PCOS. Moreover, hirsutism, acne, and alopecia are directly associated with elevated androgen levels, and the prevalence of polycystic ovaries on pelvic ultrasound exceeds 70% in patients with PCOS.[8] The present study was conducted to assess cases of Polycystic ovarian syndrome.

We found that age group 17-19 years had 56 patients, 19-21 years had 72 and 21-24 years had 20 patients. Out of 148 females, 72 (48.6%) had PCOS. A et al[9] found that seventy nine students (32.11%) met the criteria to be diagnosed as polycystic ovarian syndrome. Thirteen students (5.2%) had a history of thyroid dysfunction. The other clinical features of hyperandrogenism among those who had PCOS were like oily skin (13.82%), acne (8.53%), increased hair growth (5.69%), male pattern thinning of hair (9.75%), high degree of intolerance to cold and heat (3.25%) and galactorrhoea (0%).

We found that mean BMI was 18.97, mFG was 8.63 and average age of onset of menstruation was 12.75. Irregular period was seen in 39%, cyst or increased stroma in ovaries in 25%, Hirsutism (mFG) in 21%, both cyst in ovaries and hirsutism in 23%, both menstrual irregularity and cyst in ovaries in 16%, menstrual irregularity, cyst in ovaries and hirsutism in 4% and both menstrual irregularity and hirsutism in 3%.

The ultrasonography evidence of polycystic ovaries as a diagnostic marker doesn't validate much. The percent prevalence of PCOS was 32.11% which is comparable to some other studies done. The increased prevalence of PCOS among young aged females may be due to unhealthy dietary habit like junk foods, lack of exercises, sedentary life styles. The childhood obesity can lead to insulin resistance and metabolic syndrome in later part of the life. Stress is one of the major factors for all types' diseases now a day.[10]

CONCLUSION

Authors found that PCOS was seen in 48.6% and maximum cases were seen n age group 19-21 years.

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