

## Prevalance of Polycystic Ovarian Disease in Medical Student Of Our College.

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### I. Introduction

One of the be the commonest endocrine disorder of women of reproductive age with a heterogeneous presentation is Polycystic ovary syndrome (PCOS) which includes hyperandrogenism and ovulatory dysfunction. Thus, PCOS symptoms tend to overlap with normal pubertal changes.<sup>1</sup> so, it is a disorder of significant health concern. This necessitates estimation of proportion of women are affected by PCOS .

PCOS was defined by Rotterdam's criteria having presence of any two of the three features: • Oligo/amenorrhea: Absence of menstruation for 45 days or more and/or less than 8 menses per year. • Clinical hyperandrogenism: Modified Ferriman and Gallway (mFG) score of 8 or higher. • Polycystic ovaries: Presence of more than 10 cysts, 2-8 mm in diameter, usually combined with increased ovarian volume of more than 10 cm<sup>3</sup> , and an echo-dense stroma in pelvic ultrasound scan pulation.

PCOS is diagnosed by, ovarian USG and blood tests have to be done in the follicular phase. This limits large epidemiological studies in the community. At the same time the diagnosis is important as behavioral modification and life style changes in adolescent age group plays an important role for the prevention of future complications and morbidity Using different criteria, prevalence has been estimated as 4.0%-11.9% in the community from 3 different countries. There is paucity of data from India

The pathogenesis of PCOS isInsulin resistance and Indians are known to have high prevalence of insulin resistance, so the prevalence of PCOS may be high in our population.

### II. Aims And Objective

PREVALANCE OF POLYCYSTIC OVARIAN DISEASE IN MEDICAL STUDENT OF OUR COLLEGE.

### III. Material And Methods

This ia a prospective study carried in our institute DR.S.N.Medical college jodhpur The medical girls who volunteered to participate were asked to fill up a questionnaire asking about the details of menstrual history and features of hyperandrogenism. Responses were verified by a trained research assistant.A girl was labeled as a probable case of PCOS if she had menstrual irregularity or hirsutism (self-reported) or both. Menstrual irregularity was defined as the presence of chronic amenorrhea or usual cycle length of >35 days. All probable cases were called for detailed clinical examination to confirm features of hyperandrogenism, anthropometry, hormone estimation, and ovarian ultrasonography. To define biochemical hyperandrogenism, 100 controls from the same population (girls with regular menstrual cycles and no evidence of hyperandrogenism) were studied. Serum testosterone and free androgen index above the 97<sup>th</sup>percentile were labeled as hyperandrogenism, values of which were 1.76 nmol/L and 5.22 nmol/L, respectively.

Inclusion criteria Adolescents aged 15–19 years, not married, and had menarche more than 2 years before the study.

Exclusion criteria Those who were known case of thyroid disorders, hyperprolactinemia, Cushing's syndrome, and who were not willing to participate, were excluded from this study. udy.

### IV. Results

Out of 100 adolescent girls 11 girls had PCOS. Thus, the prevalence of PCOS in the study was 11%

**Table 1:** Distribution according to age group

| Age group         | No. | Percentage |
|-------------------|-----|------------|
| Early adolescence | 2   | 18.18%     |
| Late adolescence  | 9   | 81.81%     |
| Total             | 11  | 100%       |

it was observed that PCOS was more prevalent in late adolescence.

**Table 2:** Distribution according to family history

| Family history | Number | Percentage |
|----------------|--------|------------|
| Yes            | 5      | 45.45%     |
| No             | 6      | 54.54%     |

When family history of PCOS was taken it was observed that about 45.45% had positive family history in first degree relative

**Table 3:** Distribution of cases with menstrual irregularity.

| Menstrual irregularity | Number | Percentage |
|------------------------|--------|------------|
| PCOS                   | 9      | 81.81%     |
| Non PCOS               | 11     | 11%        |

Menstrual irregularity was the most common presentation in the PCOS group. It was observed in 81.81% including oligomenorrhoea, amenorrhoea and menorrhagia.

**Table 5:** Other clinical manifestations

| Clinical manifestations | Number | Percentage |
|-------------------------|--------|------------|
| Acne/oily skin          | 8      | 72.72%     |
| Hirsutism               | 3      | 27.27%     |
| Loss of hair/Alopecia   | 1      | 9.09%      |
| Pigmentation            | 4      | 36.36%     |
| Mood changes/depression | 1      | 9.09%      |

Acne or oily skin suggestive of androgenic activity was observed in 72.72% % of adolescent girls. Hirsutism was found in 27.27 % of cases. Loss of hair was in 9.09% of girls while pigmentation was in 36.36% of girls. Mood changes included irritability and depression which was found in 9.09% girls. Many girls had a combination of symptoms present. Most common being menstrual irregularities and acne

## V. Discussion

Prevalence of PCOS in this study was found to be 11.00%, while in the study done by Nidhi<sup>2</sup> et al, the prevalence rate was 9.13%.<sup>5</sup> The prevalence was slightly higher than the study done by Nidhi et al which was a community-based study.

Using the NIH criteria, a birth cohort study from Australia has shown prevalence of 8.7%. In this study, the definition of menstrual irregularity was very wide, polymenorrhea (<21 days cycle) or a gap between usual cycle lengths of 4-5 days was taken as oligo-anovulation, while in our study, cycle length >35 days was the criteria

Menstrual irregularity was the most common presentation in the PCOS group. It was observed in 8.81% cases including oligomenorrhoea, menorrhagia and amenorrhoea. A recent study found that PCOS was the most common underlying etiology in adolescents hospitalized with abnormal uterine bleeding (AUB) and menorrhagia, accounting for 33% of admissions Maslyanskaya S, Talib HJ, Northridge JL, et al.<sup>3</sup>

In similar study done by Dr. Kalavathi et al, and PCOS was more common in late adolescence.<sup>4</sup> In that study it was observed that about 76.2 % the cases were in late adolescence

## VI. Conclusion

Diagnosis of PCOS in adolescence remains a challenge. Lifestyle modifications for weight reduction and dietary modifications and psychological counselling plays important role in these young girls for preventing long term complications. . Early diagnosis is important to inculcate early life style modifications which will prevent metabolic and reproductive complications Although overall incidence of PCOS in adolescents is low but the incidence of PCOS among adolescence has seen an increasing trend.

## References

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