

Case Study and Overview on Polycystic Ovary Syndrome (PCOS)

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ABSTRACT

This case study is on a prominent health issue i.e. Polycystic Ovary Syndrome (PCOS) or polycystic ovary disease (PCOD). Here we are studied a 30 years woman suffering from PCOD. It was one confirmed as PCOS by consulting doctor due to irregular menstrual cycles. It is a condition that affects a woman's hormone levels. Women with PCOS produce higher-than-normal amounts of hormones. This hormone imbalance causes them to skip menstrual periods and makes it harder for them to get pregnant.

Keywords : PCOS, Hormones, Affects, Symptoms

I. INTRODUCTION

Polycystic ovary syndrome is a hormonal disorder causing enlarged ovaries with small cysts on the outer edges and abnormalities in metabolism and control of androgen and estrogen in women. PCOS is caused due to the formation of follicles in the ovaries. If it is left untreated it may cause serious health problems. It is one of the most prevalent female endocrine health matters. Every year more than 1 million cases are recorded in India. It affects one in 10 women. Symptoms vary from person to person. Etiology of PCOS is not known, although there is likely a genetic component causing hyperinsulinemia and increased testosterone production. The most common symptoms may be abnormalities in menstrual cycle, absence of menstruation or heavy menstruation or abnormal Weight problems, obesity, overweight or weight gain, Hair loss, skin problems.

What is PCOS ?

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androgen and estrogen in women. It is one of the most prevalent female endocrine health matters. Every year more than 1 million cases are recorded in India. It affects one in 10 women. Different symptoms are seen in different women. Etiology of PCOS is not known, although there is likely a genetic component causing hyperinsulinemia and increased testosterone production.

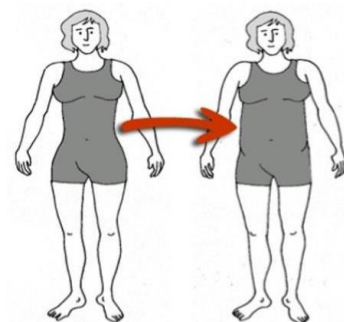
II. METHODS AND MATERIAL

Symptoms of Pecos:

People may experience:

Menstrual: abnormal menstruation absence of menstruation heavy menstruation irregular menstruation short and light menstruation or spotting

Weight: obesity, overweight or weight gain



Hair: loss of scalp hair, or unwanted hair (hirsutism), male pattern baldness



Skin: acne or oily skin

Also common in infertility, insulin resistance, depression, polycystic ovaries

Case study:

This case study is on a prominent health issue i.e Polycystic ovary syndrome (PCOS) or Polycystic ovary disease (PCOD). Here we are studied about a 30 years woman suffering from PCOD. It was confirmed as PCOS by consulting doctor through Ultrasonography due to irregular menstrual cycles, unintentionally weight gain or obesity and excess hair loss also noticed. In some cases PCOD may not be cured but symptoms may be resisted to a large extent. The prevalence of infertility in women with PCOS varies between 70 and 80%. Evidence for the role of insulin resistance in the pathophysiology of PCOS and ovarian hyperandrogenism is demonstrated indirectly by the findings of hyperandrogenism in female subjects with type A insulin resistance syndrome, a disorder characterized by a mutation in the insulin receptor gene. Insulin contributes to the biochemical and clinical hyperandrogenism by directly enhancing theca cell ovarian androgen production in concert with LH, and indirectly by lowering sex hormone-binding globulin, the carrier protein responsible for reducing circulating free testosterone levels. The high prevalence of impaired

glucose tolerance and type 2 diabetes in women with PCOS has led researchers to consider the role of insulin sensitizers in treating PCOS.

III. RESULTS AND DISCUSSION

MEDICATIONS AND LIFE STYLE CHANGES

Metformin is used for type 2 diabetes and PCOS patients to decrease insulin resistance. Insulin resistance makes body less sensible to insulin leading to several health issues. Cypokare 2mg/0.035mg Tablet is a medicine which falls into the category of anti-androgen, which necessarily means it reduces the action of male sex hormones known as androgen and hence reduces the production of the same. Physical Exercise is suggested for 30-60 minutes per day help in the decrease obesity, increase in insulin sensitivity, cardiovascular health. etc

DISCUSSION:

PCOS had become a common issue in the women all over the world. Yet there is no specific conclusion how it is caused. But there are assumptions where both genetic and some day to day changes lead to the problem. PCOS or PCOD is severely interlinked with many other major health issues.

Polycystic ovary syndrome remains a prevalent reproductive and metabolic disorder with variable phenotypes and an underlying pathophysiology that is not completely understood. Making a diagnosis of PCOS is beneficial but not essential. Therapy remains focused on managing symptoms (infertility caused by anovulation, obesity, hirsutism) and reducing long-term health risks (endometrial cancer, type 2 diabetes).

IV. CONCLUSION

In this case study of PCOS patient, the range of metabolism through biological reports are studied. The patient is diagnosed with PCOS by Ultrasonography

which shows the enlarged Ovaries with small cysts within them. By complete good medications of Metformin, cypo-kare; proper balanced diet of food; by physical activity of 1 hour every day, proper sleep helped in the reduction of heavy symptoms of PCOS. By regular treatment of the disease we can avoid several major health issues like cardiovascular diseases, type 2 diabetes, obesity etc

V. REFERENCES

- [1]. Azziz, R. (2007). Overview of long-term morbidity and economic cost of the polycystic ovary syndrome. In *Androgen Excess Disorders in Women* (pp. 353-362). Humana Press.
- [2]. Barnard, L., Ferriday, D., Guenther, N., Strauss, B., Balen, A. H., & Dye, L. (2007). Quality of life and psychological well being in polycystic ovary syndrome. *Human Reproduction*, 22(8), 2279-2286.
- [3]. Barth, J.H., Catalan, J., Cherry, C.A. & Day, A. (1993) Psychological morbidity in women referred for treatment of hirsutism. *Journal of Psychosomatic Research* , 37, 615 – 619.
- [4]. Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, 5.GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011
- [5]. Ching, H. L., Burke, V., & Stuckey, B. G. A. (2007). Quality of life and psychological morbidity in women with polycystic ovary syndrome: body mass index, age and the provision of patient information are significant modifiers. *Clinical endocrinology*, 66(3), 373-379.
- [6]. Coffey, S., Bano, G. & Mason, H.D. (2006) Health-related quality of life in women with polycystic ovary syndrome: a comparison with the general population using the Polycystic Ovary Syndrome Questionnaire (PCOSQ) and the Short Form-36 (SF-36). *Gynecological Endocrinology*, 22, 80 – 86.
- [7]. Dunaif, A. (1997). Insulin resistance and the polycystic ovary syndrome: mechanism and implications for pathogenesis. *Endocrine reviews*, 18(6), 774-800. Figlewicz, D.P., 1999. *Endocrine Regulation of neurotransmitter transporters*. *Epilepsy Res.* 37 (3), 203- 210.
- [8]. Franks, S., 1995. Polycystic ovary syndrome. *New Engl. J. Med.* 333, 853-861.
- [9]. bcmj.org/articles/polycystic-ovary-syndrome

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