CRIMSONpublishers
http://www.crimsonpublishers.com

Editorial

ISSN: 2577-2015

Current Management on PCOS (Polycystic Ovary Syndrome)/Stein-Leventhal Syndrome

Nirav R Soni*

Department of Quality Assurance (QA), India

***Corresponding author:** Nirav R Soni, Department of Quality Assurance (QA), GTU, Ahmedabad, India

Submission: October 20, 2017; **Published:** November 14, 2017

Abstract

Polycystic ovary syndrome (PCOS) is the most common health problem that affecting 12-21% of women of reproductive age. It causes important distress to women and accounts for considerable healthcare costs up to $400 million per year in Australia. In fact, PCOS is mainly causes of female infertility. The symptoms of PCOS are apparently unrelated to one another; changing definitions and a range of symptoms have made the path to diagnosis for many women difficult up to 70% of women with PCOS in the community remain undiagnosed. The National Institutes of Health (NIH) estimates that 50% of women with PCOS will become diabetic or pre-diabetic by age 40. Some studies have also shown women with PCOS to be at higher risk for suicide as well as endometrial, ovarian and breast cancer. PCOS affects the quality of life and can worsen anxiety and depression either due to the features of PCOS or due to the diagnosis of a chronic illness.

Keywords: Sign and symptoms; Management and lifestyle

Introduction

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder among women between the ages of 18 and 44. It is one of the leading causes of poor fertility. It is often associated with psychological impairments including depression and other mood disorders and metabolic derangements [1]. There are a number of definitions of PCOS, the Rotterdam consensus is the most widely accepted across Europe, Asia and Australia was the definition used for the guideline. Polycystic means "many cysts," and PCOS regularly causes clusters of small, pearl-sized cysts in the ovaries [2,3]. The cysts are fluid-filled and immature eggs. PCOS (Polycystic Ovary Syndrome) is also known as "Stein-Leventhal Syndrome".

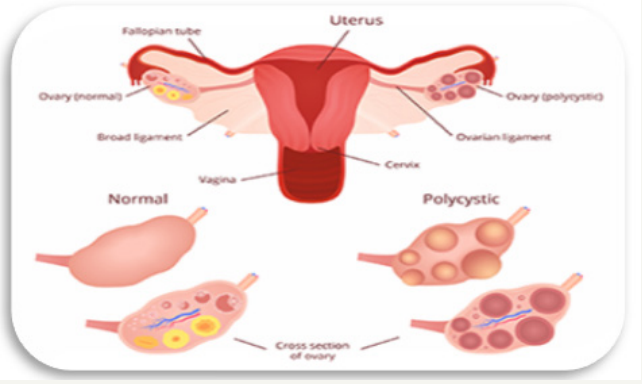

Figure 1: Development of PCOS.

Women with PCOS produce a minute amount of male hormones known as androgens, which contribute to some of the symptoms of the condition [2-4] (Figure 1).

Signs and symptoms of PCOS

It includes irregular or no menstrual periods, heavy periods, gain weight and facial hair, acne, pelvic pain, difficulty getting pregnant, and patches of thick, darker, velvety skin. Associated with potential complications includes type-II diabetes, obesity, obstructive sleep apnea [1,4,5] heart disease [3], mood disorders and acanthosis nigricans, autoimmune thyroiditis, endometrial cancer and breast cancer [6]. Also, a large number of people diagnosed with rheumatoid arthritis, multiple sclerosis and lupus combined [5]. Cysts may be detectable by ultrasound. Other conditions that produce similar symptoms include adrenal hyperplasia, hypothyroidism and hyperprolactinemia [3-7]. 5-10% of women of childbearing age are affected by PCOS with <50% of women diagnosed. PCOS is only responsible for 70% of infertility issues in women who have difficulty ovulating. Post-menopausal women can also suffer from PCOS. Some studies have shown that approximately 40% of patients with diabetes between the ages of 20-50 have PCOS. In addition, some studies have found that if a mother has PCOS, there is a 50% chance that her daughter will have this syndrome. According to the U.S. Department of Health and Human Services, between 1 in 10 and 1 in 20 women of childbearing age suffers from PCOS. The condition currently affects up to 5 million women in the United States [5-8] (Figure 2).

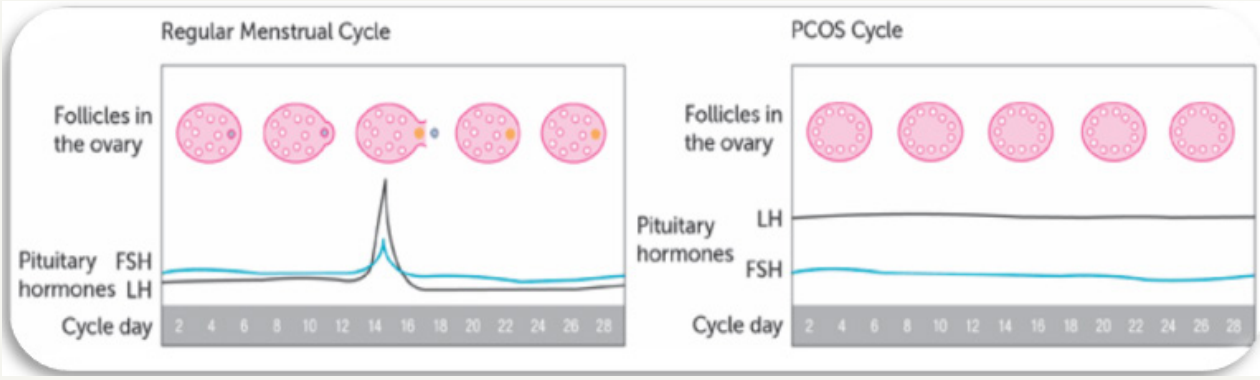

Figure 2: Normal V.S PCOS menstrual Cycle.

Current management option for Pcos 9-15

It is important that all the symptoms of PCOS are addressed and managed long term, to avoid associated health problems. PCOS is a long-term condition and long-term management is needed.

Depending on the symptoms you experience, management of PCOS can include:

I. Lifestyle modifications: Increasing your physical activity levels and eating a healthy diet can both help to manage PCOS [6].

II. Weight reduction: Research has shown that even five to 10 % weight loss can provide significant health benefits [7-9].

III. Medical treatment [10-15]:

a. The oral contraceptive pill

b. Hormonal medication: To block hormones such as testosterone (for example, spironolactone).

c. Infertility medications: If infertility is a problem, clomiphene citrate (sold as Clomid) or metformin may be taken orally to bring about ovulation (egg production). For infertility, clomiphene is first-line treatment. For metabolic/glycemic abnormalities and for improving menstrual irregularities, metformin is beneficial. Metformin is of limited or no benefit for managing hirsutism, acne, or infertility. Overall, thiazolidinediones have an unfavorable risk-benefit ratio.

d. Psychological counseling [11-13].

e. Novel Therapy [12-14]: Pineol & inositol are currently in trials for the management option. The various reason for taking inositol based powder and other medications. Reduced Insulin Resistance, Reduced Testosterone, Less Unwanted Hair Growth, clearer skin, Increased Chances of Ovulation, Higher egg quality, Lower Chance of Gestational Diabetes, Healthier Liver, Reduced Appetite and Food Cravings, More Stable Mood, Help for Symptoms of Menopause, Less Inflammation and panic, Improved nerve function, lipolysis and cost effective.

Conclusion

PCOS continues to be a global health problem that presents major challenges to our health care systems. It indicates a much need for more public education and awareness on PCOS in the country. In comparison with other complications remains one of the least understood and the most confusing medical conditions by health care public and also for the other population as well as the least funded hormonal disorder. Even World Health Organization (WHO), ACOG (American Congress of Obstetricians and Gynecologists) and National Institutes of Health (NIH) also mentioned in its report that in most of the countries where; PCOS is a major public health concern. According to the scale of the public health problem, there must be a comprehensive approach to prevention and management of PCOS is urgently required for the major fertility problem in women's. Programs like surveillance and education must be delivered at the community and rural level through the primary health care system so as to increase public awareness about the problem and lengthen the survival of affected individuals and also prevent the general from becoming affected. The most important challenge is thus to improve the projection for implementation of research for the patients with PCOS in developing countries. This study may benefit government to find a new vision and mission in control of PCOS. So, our aim to explore the understanding of Polycystic Ovarian Syndrome (PCOS) and to Study the changes of the hormonal profile in PCOS adolescents. Also, to manage lifestyle program on clinical symptoms of the adolescent polycystic ovarian syndrome.

References

1. Lujan ME, Jarrett BY, Brooks ED (2013) Updated ultrasound criteria for polycystic ovary syndrome: reliable thresholds for elevated follicle population and ovarian volume. Hum Reprod 28(5): 1361-1368.
2. Stepto NK, Cassar S, Joham AE, Hutchison SK, Harrison CL, et al. (2013) Women with polycystic ovary syndrome have intrinsic insulin resistance on euglycaemic-hyperinsulaemic clamp. Hum Reprod 28(3): 777-784.
3. Yildiz BO, Bozdag G, Yapici Z, Esinler I, Yarali H, et al. (2012) Prevalence, phenotype and cardiometabolic risk of polycystic ovary syndrome under different diagnostic criteria. Hum Reprod 27(10): 3067-3073.
4. Goodarzi MO, Dumesic DA, Chazenbalk G, Azziz R (2011) Polycystic ovary syndrome:etiology, pathogenesis and diagnosis. Nat Rev Endocrinol 7(4): 219-231.
5. March WA, Moore VM, Willson KJ, Phillips DI, Norman RJ, et al. (2010) The prevalence of polycystic ovary syndrome in a community sample assessed under contrasting diagnostic criteria. Hum Reprod 25(2): 544-551.

6. Nicandri KF, Hoeger K (2012) Diagnosis and treatment of polycystic ovarian syndrome inadolescents. Curr Opin Endocrinol Diabetes Obes 19(6): 497-504.

7. Wang ET, Cirillo PM, Vittinghoff E, Bibbins DK, Cedars M, et al. (2011) Menstrual irregularity and cardiovascular mortality. J Clin Endocrinol Metab 96(1): E114-E118.

8. Dokras A, Clifton S, Futterweit W, Wild R (2011) Increased risk for abnormal depression scores in women with polycystic ovary syndrome: a systematic review and meta-analysis. Obstet Gynecol 117(1): 145-152.

9. Teede H, Deeks A, Moran L (2010) Polycystic ovary syndrome: a complex condition withpsychological, reproductive and metabolic manifestations that impacts on health across the lifespan. BMC Med 8: 41.

10. Boyle JA, Cunningham J, Dea OK, Dunbar T, Norman RJ, et al. (2012) Prevalence of polycystic ovary syndrome in a sample of Indigenous women in Darwin, Australia. Med J Aust 196(1): 62-66.

11. Teede HJ, Misso ML, Deeks AA (2011) Assessment and management of polycystic ovary syndrome: summary of an evidence-based guideline. Med J Aust 195(6): S65-112.

12. Moran L, Gibson-Helm M, Teede H, Deeks A (2010) Polycystic ovary syndrome: abiopsychosocial understanding in young women to improve knowledge and treatment options. J Psychosom Obstet Gynaecol 31(1): 24-31.

13. Unluhizarci K, Kaltsas G, Kelestimur F (2012) Non polycystic ovary syndrome-related endocrine disorders associated with hirsutism. Eur J Clin Invest 42(1): 86-94.

14. Misso ML, Wong JL, Teede HJ (2012) Aromatase inhibitors for PCOS: a systematic review and meta-analysis. Hum Reprod Update 18(3): 301-312.

15. Bargiota A, Diamanti KE (2012) The effects of old, new, and emerging medicines on metabolic aberrations in PCOS. Ther Adv Endocrinol Metab 3(1): 27-47.