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".

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).
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, domiphen 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 or 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 for improving menstrual irregularities, metformin is beneficial.

References


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