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Depression Due to Polycystic Ovary Syndrome in Adolescents

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Polycystic ovary syndrome(PCOS) is a common endocrinal disorder of reproductive age, that cause enlarged ovaries with small cyst on the outer edges with infrequent or prolonged menstrual cycles, excess hair growth, acne and obesity, which is nowadays prevailing among females at adolescent stage. About 5-10% of women among the general population of in the world are affected by PCOS. There is an increase in the prevalence of PCOS among the women and young girls of reproductive age, where they experience depression because of PCOS particularly. The exact cause of PCOS is unknown. The early diagnosis and treatment along with weight loss may reduce the long term complications of PCOS. It is not only a problem associated with reproduction, but also has associated vital metabolic and psychological health risks.
Aim: Depression Due to Polycystic Ovary Syndrome in Adolescents
Conclusion: In comparison to safe controls, adolescents with PCOS had lower self-esteem, more anxiety, and more depressive symptoms. Future research is required to look into the psychiatric issues that affect adolescents with PCOS.

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1. INTRODUCTION

Polycystic ovary syndrome(PCOS) is the most common hormonal disorder in females who have attained puberty, leading to infertility among 15-20% of women [1]. 6-10% women within the reproductive age who are obese may generally have PCOS.PCOS is a genetic disorder that manifests itself in a variety of phenotypes and physical characteristics [2]. PCOS patients are more likely to have severe health problems. Clearly, there is a connection between reproductive and ovulatory dysfunction. Metabolic disturbances, which affect 2/3 of women with PCOS, can put them at risk for cardiovascular disease and type 2 diabetes [3]. According to numerous research reports, patients with PCOS may experience psychosocial issues as a result of obesity, excessive body hair, and changes in the physical appearance of teenage girls. There may be a variety of reasons for adolescent girls' psychological stress related to PCOS; however, in this article, a few steps are suggested as an outline for coping with PCOS-related stress among young girls, especially adolescents [4]. Depression and anxiety are common in women with PCOS, but they are often overlooked and often untreated. In addition to its physical manifestations, PCOS has been connected to a slew of psychiatric problems. As a result, PCOS not only affects fertility but also poses major metabolic and psychological risks to patients as they age.

2. PSYCHOLOGICAL STRESS AMONG ADOLESCENT WITH POLYCYSTIC OVARY SYNDROME

Higher androgen levels, mental disorders, hirsutism or alopecia, and obesity are all symptoms of PCOS, but behavioral scientists have recently begun to see significant levels of anxiety in PCOS patients, particularly young girls [5]. The explanation for this may be that during their adolescent years, young girls are more concerned about their physical appearance and health [5]. The reason might be young girls are more concerned about their bodily properties and physical health during the period of adolescence [6]. One of the studies brings out clearly that stress symptoms were noticed in a group of adolescents with PCOS symptoms then the girls who were not affected with PCOS [7]. Depression and stress are the high risk factors among patients with PCOS accompanied with hindered metabolic and reproductive features. Various reasons such as high BMI and demoralization might be due to high level of anxiety and depression in such individuals [8]. Severe cases of PCOS can result in social withdrawal among patients, as well as clinical symptoms such as hyperandrogenism and infertility in later stages. Adolescents with a family history of infertility and depression, as well as a high BMI factor and sleep disruptions, fatigue accompanied by a diminished involvement in daily chores, and appetite changes, may all be contributing factors to PCOS in young girls [9]. Several studies have found a connection between serum androgen levels and depression ratings [10]. It's also worth noting that the presence of hyperandrogenism's physical features, such as obesity, cystic acne, hirusitism, alopecia/hair loss, and skin diseases like seborrhea, incites a more negative self image and low self confidence in adolescents, which may be the root cause of high depression levels and psychological distress among adolescents with PCOS [11].

3. MANAGEMENT AND TREATMENT OF PCOS IN ADOLESCENTS

Recently many guidelines for management and treatment of PCOS are put forth, a few of them are suggested/ discussed, they are first and foremost a counselling can be done that can be related to changes in the life style of the young individual [12]. These life style changes are obesity control, prevention of smoking and consumption of alcohol, daily /regular routine for exercises or daily walks, can be suggested to the adolescents [13]. When used consistently for 6 months, standard metformin treatments in PCOS will show beneficial results by reducing physiological and psychological issues in people who have good results [14]. When standard metformin treatment fails to relieve stress in PCOS patients, some stress management strategies such as behavioural therapy and relaxation are recommended [15]. The cause of the discomfort in young girls is hirusitis, which may be caused by high levels of androgens. If required, an antiandrogen therapy may be used in conjunction with cosmetic management, as long as the hair removal process is legal [16]. PCOS can be managed and long term complication of this can be prevented in individuals' with a strong control on their diet and

an active life style, which shall/will help to reduce the risk ofdiabetes in them [17].

4. DISCUSSION

Polycystic ovarian syndrome is a chronic heterogeneous endocrine condition characterised by androgens, depression, and menstrual irregularities. The emergence of distressing signs such as hirsutism, obesity, and acne during adolescence is the cause of tremendous mental stress and depression in an adolescent with this disorder (PCOS) [18].

Obesity has been identified as one of the leading causes of depression and emotional stress in adolescents with PCOS. To resolve emotional stress in adolescent patients, this must be treated both psychologically and clinically. Adolescents benefit from psychosocial techniques such as weight loss and physiological maintenance to reduce stress and depression [19]. As a result, it is reasonable to conclude that major psychological and behavioral interventional interventions that are primarily beneficial in reversing depression in patients with PCOS, especially in the adolescent stage, such as a balanced diet, good quality sleep, avoiding an inactive lifestyle, and regular exercise, are a more cost-effective and promising alternative. It is now scientifically proven that maintaining a safe and active lifestyle will help to reduce both physiological and psychological symptoms of PCOS [20-24].

5. CONCLUSION

PCOS is a chronic, heterogeneous endocrine condition characterized by androgens, menstrual irregularities, and depression. Depression and stress, as well as damaged metabolic and reproductive features, are high-risk factors for patients. Obesity has been identified as a significant contributor to teenage depression and emotional stress. In comparison to safe controls, adolescents with PCOS had lower self-esteem, more anxiety, and more depressive symptoms. Future research is required to look into the psychiatric issues that affect adolescents with PCOS.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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