ORIGINAL RESEARCH

Prevalence of anxiety and depression in polycystic ovarian syndrome patients attending OPD at a tertiary care centre in central India

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ABSTRACT

Introduction: The most commonly seen endocrinopathy that have been most commonly crossed is polycystic ovarian syndrome. It affects almost 6 – 10% of women in their reproductive age group. Hence this study discusses the prevalence of anxiety and depression in polycystic ovarian syndrome among patients attending the tertiary care center in Central India. **Materials and Methodology:** In this study, there were 100 patients of PCOS reporting from the Department of Obstetrics and Gynecology, Peoples College of Medical Sciences and Research Centre, Bhopal MP, India. This study included those patients who were attending the outpatient and who had confirmed diagnosis of PCOS earlier. A semi-structured questionnaire was used to gather information about socioeconomic status and clinical symptoms. Clinical symptoms assessment included menstrual history; reproductive history; BMI; body hair, which were assessed using Ferriman–Gallwey scoring system acne, which were assessed on global acne grading system (GAGS). Data were expressed as proportions. **Results:** In this study of 100 women of PCOS mean age (SD) was 25.42 (3.68) and most of women had education level of 10 – 12 years. Interval between menstruation days was variable in majority and more than two-thirds had never been pregnant. Sociodemographic and clinical characteristics are shown in following Table. **Conclusion:** Prompt pharmacological treatment followed by psychotherapeutics and psychosocial support should also be considered while treating such women with PCOS.

Keywords: PCOS, psychological difficulties, anxiety, depression

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INTRODUCTION

Various endocrine disorders have been greatly encountered among gynecology patients who had been reported with the disturbances in routine occurrence in ovulation & menstruation.[1] The most commonly seen endocrinopathy that have been most commonly crossed is polycystic ovarian syndrome.It affectsalmost 6 –10% of women in their reproductive age group.[2]the major characterizing features include amenorrhea, oligomenorrhea, anovulation, infertility, obesity, hirsutismand acne. These symptoms have the potential that could lead to anxiety, depression, impaired sexual functioning, and marital and social maladjustment.[3]

Anxiety and depression are reportedly themost common mental health issues related to PCOS. Prevalence of anxiety in women with PCOS ranges from34%to57%. [4,5]where as the prevalence of depression in PCOS females varies from 28% to 64%.[6,7]Therefore thisbroad range of its prevalence ratesmight be due to the differences among various ethnicities, different socioculturalcharacteristics of the study populations or use of variousmethodologies and protocoltoassesspsychiatricmorbidity.

International research had clearly evaluated that PCOS and its adverse effect affecting the patient’s quality of life (QOL). The Indian population view on the quality of life is totally remained confused. The Indian literature on psychological aspect on PCOS is inconsistent. As we all know that PCOS is a lifestyle disease like DIABETES. Diabetes is a well-known disease, but don’t you think it’s high time for people of India (both men and women) should be aware about PCOS as a disease considering every 1 in 5 girl in

India is affected with PCOS/PCOD. Hence this study discusses the prevalence of anxiety and depression in polycystic ovarian syndrome among patients attending the tertiary care center in Central India.

MATERIALS AND METHODOLOGY

After obtaining prior permission from the institutional ethical committee, this study was intended to be across-sectional observational study. In this study, there were 100 patients of PCOS reporting from the Department of Obstetrics and Gynecology, Peoples College of Medical Sciences and Research Centre, Bhopal MP, India. This study included those patients who were attending the outpatient and who had confirmed diagnosis ofPCOSearlier. They were clearly explained about the details of the study and were invited to participate based on their own interest. Written consent was obtained from those who agreed to participate. There were certain inclusion criteria include all the patients in the age group of 15 – 40 years married women, those patients fulfilling the Rotterdam criteria wherein visualization of polycystic ovarian syndrome, women with the clinical signs of hyper-androgenism and those with more than 35 days interval between mensus for at least 6 months. Those women observed with adrenal hyperplasia, thyroid dysfunction, psychiatric diagnosis or those with psychiatric mediations or those with hyperprolactinemia.

Hospital anxiety and depression scale (HADS) was usedto assess anxiety and depression.[8]HADS is a reliable instrument to screen for clinically significant anxiety and depression in patients attending a general medical clinic. It is also avalid measure of the severity of these mood disorders. Thisquestionnaire contains 14 questions, including 7 each forrating anxiety and depression. The scale has been found tobe equivalent to Hamilton anxiety or depressive scales inreliability and validity. A score of 0–7 on either subscale isregarded as normal, 8–10 as suggestive of presence of mildalterations, and that of 11 or higher indicates probable presence of the particular mooddisorder or anxiety disorder.HADS has a correlation of 0.6–0.8 with other questionnairesfor anxiety and depression, such as Beck Depression Inventory and Clinical Anxiety Scale.

A semi-structured questionnaire was used to gather information about socioeconomic status and clinical symptoms.Clinical symptoms assessment included menstrual history; reproductive history; BMI; body hair, which were assessed using Ferriman–Gallwey scoring system[9] acne, whichwere assessed on global acne grading system (GAGS).[10]Data were expressed as proportions.

RESULTS

In this study of 100 women of PCOS mean age (SD) was 25.42(3.68) and most of women had education level of 10–12years. Interval between menstruation days was variable in majority and more than two-thirds had never been pregnant. Sociodemographic and clinical characteristics are shown in following Table.

Of all the participants, 28% (28) demonstrated increased anxiety scores (HADS anxiety subscale ≥11) and 11% (11) showed increased depression scores (HADS depression sub-scale≥11).There were 17% (17)who scored above the cutoff for both anxiety and depression subscales.

Table1:Sociodemographicandclinicalvariables

VARIABLES	
Age(years)*	25.42(3.68)
Domicile**	
Rural	95(95)
Urban	5(5)
Education (years)**	
1–5	13(13.0)
6–9	18(18)
10–12	40(40)
>12	29(29.0)
Durationofmarriage(years)*	7.25(3.6)
Clinical	
Hirsutismscore	6.32(4.4)
Acne score	9.34(6.23)
Intervalbetweenmenstruationdays**	
<21	3(3.0)
21–34	35(35.0)
35–60	6(6.0)
>199	22(11)
Variable	90(45)
Reproductivehistory**	
Neverpregnant	70(70)
Hasbeenpregnant:allbirths,nolosses	9 (9)
Hasbeenpregnant:somebirths,somelosses	8 (8)

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Hasbeenpregnant:nobirths,allloses	13 (13)
BMI(kg/m^2)	
<25	39(39)
25–30	44(44)

*Means(SD),***N*(%)

DISCUSSION

This study basically aimed at determining the prevalence of anxiety and depression as symptoms among PCOS patients and also scrutinizing the possible effect of demographic profile on the prevalence of these symptoms among the women with PCOS. It has been postulated that the major reasons behind this is the anxiety nature being secondary to their condition than being primary from the beginning. The most common symptom of anxiety was tension, various physical manifestations of their condition that include acne, obesity and hirsutism which could possibly lead to negative self-perspective and prior low self-esteem.[11] Also, the women who are unable to conceive might experience great amount of fear and worries regarding not having their own baby.[11]

Additionally in this study, they symptoms of anxiety were evaluated among various socioeconomic factors which suggested that many symptoms associated with PCOS like obesity, hirsutism and menstrual irregularities might contribute in developing various complications like lowered self-esteem, negative body image and their worries about finding a life partner among single women which indirectly increase the stress created by the peers regarding the marital life and their physical appearance.[12,13]

The primary objective of this study was to evaluate the prevalence of anxiety and depression among PCOS patients and this study effectively revealed that high prevalence of depression has been reported in PCOS patients. There are many studies that have reiterated the similar findings. *Rassi* et al[14] in their study noticed that the depression in 26% of the patients with PCOS but *Hollinrake* et al[15] reported 21% prevalence of the depression in PCOS patients. Various other authors like Mansson M et al (2008)[16] and Kerchner A et al (2009)[17] observed the prevalence of depression as high as 40 – 45%.A study by an Indian researcher *Hussain A* revealed that 23% of the PCOS patients had observed with major depressive disorder when compared with the 7.5% of the control group.[18] The results obtained from our study showed increased prevalence of anxiety and depression among the study population which thereby projected high similarity with the earlier studies by *Mansson M* and *Kerchner A*. These high levels of anxiety among the PCOS patients might be due to their infertility, loss of sexuality, increased acne problems, hirsutism and increased weight gain.[19,20]

CONCLUSION

To conclude, the clinicians must be aware of the increased risk of developing anxiety or depression among the women with PCOS syndrome and it is the major duty of the clinician to screen them regularly for the presence of above discussed symptoms and signs. Prompt pharmacological treatment followed by psychotherapeutics and psychosocial support should also be considered while treating such women with PCOS.

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