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A prospective analysis on the effect of weight loss in improving the symptoms of Polycystic ovary syndrome (PCOS)**Santhosh Cheruvillil Abraham**

Consultant Endocrinologist

Background: Polycystic ovary syndrome (PCOS) is associated with disturbances in menstruation especially oligomenorrhea and amenorrhea (1). Increasing Body Mass Index (BMI) has been shown to increase the prevalence of PCOS (2). PCOS patients are at increased risk of having depression even though the association with obesity is not proven (3).

Objective: The aim of this prospective study was to determine the effect of weight loss in improving the symptoms in PCOS notably oligomenorrhea/amenorrhea and depression.

Design: Data were randomly collected in a prospective fashion from medical records of overweight PCOS patients (n =78) who attended the endocrine clinic from March 2021 to June 2021. Patients who had secondary causes of obesity and who had oligomenorrhea or amenorrhea due to other causes were excluded. Overweight patients were defined having BMI above 25 and depression was scored using the PHQ-9 questionnaire. Patients were given dietician referrals and were included in a structured weight loss program using non pharmacological interventions over a 16-week period from July 2021 to November 2021. Data were analysed using Microsoft excel. The results before and after the weight loss were compared with a chi square test.

Results: 78 had a body mass index (BMI) above 25 at the first visit. 35 (45 %) succeeded to decrease their BMI below 25. 30 patients had oligo/anovulatory cycles and 22 had signs of depression. In those who achieved a BMI less than 25 there was a significant improvement in oligoovulation, anovulation (Chi square statistic = 23.33 and $p < 0.00001$) and depression (Chi square statistic = 5.719 and $p < 0.016873$).

Conclusion: The study indicated that weight loss resulted in improvement of menstrual dysfunction and symptoms of depression in overweight obese PCOS patients.

Biography

Dr Santhosh Abraham is working as a Consultant Endocrinologist at York Teaching Hospital, UK. He did his medical education from India and further pursued his career in the UK. He is a member of the RCP Glasgow and he is currently involved in teaching and supervising Endocrinology registrars. He has got publications in Journal of Clinical Endocrinology and metabolism, RCP journals etc.