Body Esteem, BMI Linked to Depression in PCOS

BY JOYCE FRIEDEN

WASHINGTON — Women with polycystic ovary syndrome who have a high body mass index or poor body self-esteem are more likely to be depressed, according to results from a study of 67 untreated PCOS patients.

Depression is very common in PCOS patients, with previous studies showing depression rates of 35%-50% in PCOS patients compared with 12%-14% in the general female population, said Lisa Pastore, Ph.D., of the department of obstetrics and gynecology at the University of Virginia, Charlottesville, at the annual meeting of the Androgen Excess and PCOS Society. Prior research also has

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shown neither the degree of hirsutism nor that of acne are related to body selfesteem in PCOS patients, she added.

Eligibility criteria for the current study included a diagnosis of PCOS using the National Institute of Child Health and Human Development criteria, age 18-43 years, weight less than 250 pounds, and at least one menses in the past 6 months but no more than eight periods in the most recent 12 months without hormonal intervention. Exclusion criteria included use of metformin or hormones in the prior 60 days, current pregnancy or breastfeeding in the prior 30 days, acupuncture treatment for ovulatory disorders in the prior 30 days, and any bleeding disorder.

The mean age of study participants was 27 years; 54% were single. Overall, 39% of participants were normal weight, 12% were overweight, and 49% were obese; 27% were of minority ethnicity.

Study participants were asked to rate each of 35 items, including body parts and functions, on a 5-point Likert scale with possible responses ranging from 1 (very negative feelings) to 5 (very positive feelings). A lower score indicated a worse

Respondents also completed the Quick Inventory of Depressive Symptomatology-Self Report, which includes 16 items used to assess depressive episodes or major depressive disorders. Areas covered include sad mood, concentration, self-criticism, suicidal ideation, decreases or increases in appetite and weight, and sleep disturbances. Participants selfreported frequency and severity of symptoms over the previous 7 days, rating severity on a scale of 0-3.

Patients underwent chemiluminescent immunoassay of total testosterone and testing for dehydroepiandrosterone sulfate and sex hormone binding globulin (SHBG). In addition, mathematically derived free testosterone was calculated.

Respondents' total testosterone ranged from 19 ng/dL to 161 ng/dL with a mean of 62 ng/dL. SHBG ranged from 2 nmol/L to 86 nmol/L with a mean of 31 nmol/L. Free testosterone ranged from 3 pg/mL to 45 pg/mL with a mean of 13 pg/mL. Nearly half of the patients in the study were depressed; 70% of those had mild depression, according to Dr. Pastore, the study's lead author.

The study was consistent with an association between depression severity and body esteem among PCOS patients after the researchers controlled for age, education, and BMI. Higher BMI also was correlated with depression, although body self-esteem was an independent predictor of depression in both lean and obese women.

In addition, although none of the androgens were predictive of depression severity, "there was some curvilinear relationship," with depression severity lowest among patients with very high or very low free testosterone levels, Dr.

The study was supported with funding by the National Center for Complementary and Alternative Medicine and the National Center for Research Resources. Dr. Pastore disclosed no conflicts of interest.



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