Weight Management Improves Menstrual Function in PCOS Patients

BY DIANA MAHONEY
New England Bureau

Boston — Weight loss can significantly improve menstrual function in overweight adolescent and young adult females with polycystic ovary syndrome, while at the same time reducing some of the risk factors for long-term morbidity associated with the hormonal reproductive problem, said Dr. Rollyn M. Ornstein at the annual meeting of the Society for Adolescent Medicine.

In a 12-week prospective study of 24 females aged 12-22 years with polycystic ovary syndrome (PCOS) and a body mass index above the 85th percentile for their age, half of the subjects were randomized to the calorie-controlled National Cholesterol Education Program Step II Diet and half to a very-low-carbohydrate, high-protein, high-fat diet.

The latter diet was included to determine whether minimal weight loss would independently impact the signs and symptoms of PCOS, because insulin resistance is thought to play a key role in the pathogenesis of the disorder, said Dr. Ornstein of Schneider Children’s Hospital in New Hyde Park, N.Y.

All of the women in the study had fewer than six spontaneous menstrual cycles in the year prior to enrollment, and all underwent laboratory evaluation and assessment at baseline and at the end of the study, including a metabolic panel, fasting lipid profile, hormonal studies, a 2-hour oral glucose tolerance test, blood pressure testing, and waist circumference measuring, which is a marker for insulin resistance. Study participants attended biweekly nutrition and exercise counseling sessions, during which dietary compliance, menstrual history, blood pressure, and weight were recorded. Additionally, lipid profiles were recorded every 6 weeks.

Of the 24 participants, 16 (7 from the low-fat diet group and 9 from the low-carbohydrate group) completed the study. The average overall weight loss in the group was 6.5% and the average waist circumference reduction was 5.7 cm. Of the 16 completers, 12 menstruated during the study period, 8 with regularity.

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Since this study, there have been several improvements in the technique of implantation and the equipment used.

The previous technique necessitated an incision in the abdomen to place the control unit, whereas now it is placed over the gluteal region. This shortens the duration of the procedure by 30-54 minutes.

The leads are now placed percutaneously, whereas before, they were placed via incisions over the sacrum. As a result, the incidence of adverse events is considerably lower than reported in the earlier review, Dr. Ghoniem said.

Suitable patients benefit greatly from this therapy, said Dr. Ghoniem. "This disorder can make people very upset and anxious. They have had urinary incontinence for years. They’ve tried different medications, different doctors, and nothing works—they still go to the bathroom all day and all night and they are miserable. But once this changes for them, they are ecstatic.”

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The controls did not show any significant improvement in their condition during the observation period, he added.

No permanent injuries were reported. Adverse side effects included pain (15% of patients), infection (6.1%), transient electric shock (5.5%), adverse change in bowel function (3%), and suspected lead migration (8.4%). Nevertheless, the patient satisfaction rate was 84%, Dr. Ghoniem said.

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