Lifestyle Change First-Line Tx in PCOS Infertility

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TORONTO — Lifestyle treatment should be the first-line therapy for the management of fertility in obese women with polycystic ovary syndrome, according to a consensus panel of the American Society for Reproductive Medicine and the European Society for Human Reproduction.

The consensus finding is based on a review of the evidence conducted in March. This effort was part of a comprehensive review of all infertility treatment in PCOS, the results of which will be forthcoming in the near future, Dr. Kathy Hoeger said at the annual meeting of the Androgen Excess Society.

The available studies suggest that lifestyle interventions that lead to modest weight loss can improve ovulatory function in overweight women with polycystic ovary syndrome, said Dr. Hoeger, of the department of obstetrics and gynecology at the University of Rochester (N.Y.) and a participant in the March consensus meeting.

However, further study is needed on the effect of weight reduction and exercise on live-birth rates, she said. More research is also needed on the appropriate time frame for weight reduction prior to conception.

The general literature shows that lifestyle change is effective for metabolic improvement, but there are no large randomized trials for effect on ovulation induction or restoration of menstrual function. All studies published to date, however, support an improvement in reproductive function with lifestyle change in women with PCOS, she said.

Among the smaller studies that have focused on reproductive outcomes, the findings suggest that modest weight loss—about 5%-10%—can improve reproductive status. "This degree of weight loss does not generally put people into a normal [body mass index] range," Dr. Hoeger said.

For example, in a nonrandomized study of 67 obese and anovulatory women who were offered an intensive lifestyle intervention over 6 months, there was an overall 9% reduction in starting weight, and 60 of the women resumed spontaneous ovulation. Also, 52 of the women achieved pregnancy, 18 of those spontaneously. Of the 67 women in the study, 45 achieved a live birth (Hum. Reprod. 1998;13:1502-5). In another small study, 9 of 18 women became regular ovulators following a 6-month individualized diet and exercise program. The study included infertile, anovulatory obese women with PCOS. The mean weight loss was less than in the earlier study, about 2%-5%. Resuming ovulation was closely linked with improved insulin sensitivity and reduced percentage of central body fat (J. Clin. Endocrinol. Metab. 1999;84:1470-4).

In one study of obese women, resuming ovulation was closely linked with improved insulin sensitivity and reduced percentage of central body fat.

Some studies have also compared the use of diet and exercise interventions with metformin in stimulating the return of ovulation. For example, Dr. Hoeger conducted a small pilot study of 38 overweight and obese women with PCOS. The women were randomized to receive metformin, or lifestyle change plus metformin, or lifestyle change plus placebo, or placebo alone (Fertil. Steril. 2004;82:421-9).

All groups achieved at least some weight reduction, with the most weight loss occurring among the women who received both metformin and the lifestyle intervention. Ovulation rates were not significantly different among the four groups. However, an analysis of the data suggests that weight reduction likely plays a more significant role than does metformin in the resumption of ovulation, Dr. Hoeger said.

Larger studies are still needed to fill in some of the blanks surrounding fertility treatment in obese women with PCOS, Dr. Hoeger said. In the meantime, clinicians must face the pitfalls of implementing a successful lifestyle intervention. These programs can be hard to maintain because of high dropout rates, and they are expensive to perform in a clinical setting. It's also unclear whether modest weight changes can be maintained over time, as the longest trial examining lifestyle change in PCOS followed patients for 48 weeks, she said. ■

Reference: 1. Connor BA, Blatter MM, Beran J, Zou B, Trofa AF. Rapid and sustained immune response against hepatitis A and B achieved with combined vaccine using an accelerated administration schedule. *J Travel Med.* 2007;14:9-15.