Expert Shares Office Ovulation Induction Tips

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CALGARY, ALTA. — Obese women may not want to hear that their physical condition impacts their fertility, but it's up to clinicians to deliver that sobering news, according to a Canadian fertility center director.

"Obesity is associated with anovulation, pregnancy loss, late-pregnancy complications, and is also associated with infertility treatment failure," Dr. Allison Case said at the annual meeting of the Society of Obstetricians and Gynaecologists of Canada. "Patients don't want to hear that, but I think it's very important to tell them, not just for their overall health, but for the health of their pregnancy."

A recent consensus statement from the European Society for Human Reproduction and Embryology and the American Society for Reproductive Medicine on infertility treatment related to polycystic ovary syndrome concluded that treatment of adverse lifestyles, including obesity and physical inactivity, should precede ovulation induction (Human Reprod. 2008;23:462-77).

"We all preach this to our patients but this consensus statement gives us proof to show them that this is what the recommendation is, before we do anything else," said Dr. Case, medical director of the ARTUS Fertility Center at the University of Saskatchewan, Saskatoon.

Weight loss before infertility treatment has been shown to improve ovulation rates. Results from other studies suggest that weight loss improves fecundity rates and lowers pregnancy complications, "but more studies are needed to support that," Dr. Case said. "What are the best diet and exercise regimens? That's still to be determined. But the basics of caloric restriction and exercise are what we should be promoting."

If lifestyle modifications fail to resolve infertility in normogonadotropic anovulatory women, Dr. Case moves on to the use of clomiphene citrate for ovulation induction. The starting dose is 50 mg daily for 5 days starting cycle day 3-5, increasing to about 150 mg daily in subsequent cycles. The approved maximum dose is 750 mg/cycle.

"One of the most important things is to monitor response to clomiphene, which is ovulation," she said. A decade-long study of clomiphene use found that 52% of women with PCOS will ovulate when given a 50-mg dose, compared with 22% on 10 mg, 12% on 150 mg, and 7% on 200-250 mg (Fertil. Steril. 1982;37:161-7).

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"I rarely go higher than 150 mg unless the woman has a high body mass index," said Dr. Case, who noted that 85% of anovulatory women will ovulate in response to clomiphene while 15% are clomiphene resistant.

The least expensive way to monitor for signs of ovulation is basal body temperature. "It doesn't really cost anything, but it's very tedious," Dr. Case said. "Luteinizing hormone testing can also be used. This can get expensive, because the ovulation sticks are about $10 each."

Other options include measuring luteal phase progesterone, "which can be labor intensive," and serial transvaginal ultrasound monitoring for follicle growth. "We use this a lot in our clinic," she said. "When all else fails, ask the patient if she got a spontaneous period. If yes, then she most likely ovulated."

Side effects of clomiphene citrate may include hot flushes, headache, nausea, fatigue, multiple pregnancies (in 8%-10% of women), and ovarian cyst formation (in 8%-20% of women).

Pitfalls of clomiphene citrate therapy include lack of monitoring to determine response, prolonged treatment (more than 6-12 cycles), and the presence of other undetected infertility factors. "I recommend doing an HSG [hysterosalpingogram] at least within the first three cycles, and a semen analysis as well," Dr. Case said.

Clomiphene is ineffective for women with hypothalamic amenorrhea and hyperprolactinemia.

Dr. Case stated that she had no relevant conflicts to disclose. ■