FSH in Unexplained Infertility Means More Twins

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VANCOUVER, B.C. — Multiple pregnancy occurs in about one-fifth of women with unexplained infertility who become pregnant after treatment with follicle-stimulating hormone to induce superovulation, the largest study to look at this outcome found.

Investigators at the University of British Columbia, Vancouver, retrospectively studied 759 women whose infertility had no identifiable cause after a full work-up and who received FSH, with or without intrauterine insemination (IUI), a treatment that is a less costly and less invasive alternative to in vitro fertilization (IVF).

In all, 22% of the women became pregnant, according to results reported at the meeting. Although 18% of the pregnant women had a multiple pregnancy, in most cases these were twin gestations. Multiple pregnancy was most common among women younger than 30 years of age.

"This study definitely provides information for patients when we are counseling them on the different treatment choices that are available, specifically for the group with unexplained infertility," commented first author Dr. Melica Nourmoussavi, a resident in the department of ob.gyn. at the university. "And it's also very important for gynecologists who are concerned about the risks of multiple pregnancies when treating with FSH, with or without IUI."

She acknowledged that such concerns are justified, and offered some guidance, based in part on the study's findings, for minimizing the likelihood of this outcome. "First of all, [make] appropriate patient selection; for example, [be] cautious when treating younger women because of their increased risk of multiple pregnancies," she said. "Second, [consider] conversion to IVF or even cancellation of cycles when there are signs of overstimulation," such as more than three mature follicles or multiple medium-size follicles. "And third, [use] minimal ovarian stimulation protocols for more controlled treatment."

In the so-called stair-step approach to unexplained infertility (in which physicians work their way up from the least expensive, invasive, and stressful – but also least successful – treatments to those that are the most expensive, invasive, and stressful), FSH-induced superovulation, with or without IUI, comes after clomiphene, with or without IUI, but before IVF.

She and her colleagues retrospectively reviewed the charts of women with unexplained infertility who were treated with FSH, with or without IUI, at the university in 2002-2008.

The 759 women identified had a total of 1,387 cycles of treatment. Some 73% were aged 35 years or older.

Study results showed that the pregnancy rate was 22% in the study population as a whole, but it ranged from 12% among women aged 40 years or older to 31% among those aged 30-34 years.

In the group who became pregnant, the multiple pregnancy rate was 18%, with a range spanning from 9% among women aged 40 years or older to 33% among those younger than 30 years of age.

Most of these multiple pregnancies (87%) were twin gestations, whereas the rest were triplet gestations. In all, 16% of the multiple pregnancies were reduced to singleton pregnancies.

An analysis of the cumulative pregnancy rate with treatment showed that although the pregnancy rate did increase with each cycle regardless of a woman's age, the increase was much smaller in women older than 40 years. ■

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Major Finding: Overall, 22% of women became pregnant, and 18% of this group had a multiple pregnancy (usually a twin gestation).

Data Source: A retrospective analysis of 759 women with unexplained fertility who were treated with FSH, with or without intrauterine insemination

Disclosures: Dr. Nourmoussavi reported that she had no relevant financial disclosures.