Preventing assumptions about the effect of body mass index on in vitro fertilization pregnancy rates

The article by Insogna et al. (1) provides critical information to all who practice infertility or refer their patients for in vitro fertilization (IVF) services. It has long been known that weight adversely effects pregnancy for women (2) as well as adversely affecting their short-term and long-term health (3). As noted by Insogna et al. (1), obesity impacts ovulation and pregnancy rates in women. The effect on IVF success, however, has undergone limited study and presumed to have negative effect on success.

This excellent study demonstrates that not all assumptions and limited studies on the impact of weight and infertility are correct (1). Indeed, being overweight doesn't lower success with IVF or the live birth rate following frozen embryo transfer. This study demonstrated no difference in the odds ratio for pregnancy following frozen embryo transfer for women with body mass index (BMI) between 25 and 29.9 compared to normal weight women (1). Further positive data regarding overweight women was the live-birth rate. Normal weight and overweight women had equivalent outcome regarding miscarriage risk and live-birth rates (1). This allows physicians and providers to more accurately counsel infertility couples.

The limitations of this study were noted. Although obese women and underweight women did not demonstrate a decrease in pregnancy rates, there were insufficient numbers to provide confidence in this data (1). As the severity of obesity increases internationally (4), further study on obese women undergoing IVF and frozen embryo transfer is needed. As the authors note, the study has limitations that may affect the outcome (1). Firstly, the challenges of embryo transfers are noted to be greater for overweight women, although this did not affect outcome. It is possible, however, that with greater numbers this increase in transfer challenges may adversely affect pregnancy rates. Although the physicians were experienced with equivalent pregnancy rates, the possible involvement of junior faculty, as in most academic centers, may affect outcome. The mode of practice, including the method of embryo cryopreservation, is also noted by the authors (1). Any marked change in practice may alter pregnancy rates and effect the results of a future study.

In summary, this critical study provides preliminary information demonstrating that women who are overweight, and possible women who are obese, should be allowed to proceed with IVF treatment (1). Based on the same pregnancy rate outcomes with frozen embryo transfer for these women, compared to normal weight women, there is no reason for insurance companies to limit IVF coverage for women with a BMI in this range. Physicians can continue to counsel their patients regarding the effect of their weight of pregnancy and long-term health, yet reassure them that in vitro fertilization pregnancy rates are not adversely effected.

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