Conventional IVF noninferior to PGT-A for live-birth rate

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(HealthDay)—Among women with three or more good-quality blastocysts, conventional in-vitro fertilization (IVF) results in a cumulative live-birth rate that is noninferior to the rate obtained using embryo selection with preimplantation genetic testing for aneuploidy (PGT-A), according to a study published in the Nov. 25 issue of the New England Journal of Medicine.

Junhao Yan, M.D., Ph.D., from Shandong University in Jinan, China, and colleagues conducted a multicenter randomized controlled trial involving subfertile women, aged between 20 and 37 years, with three or more good-quality blastocysts who underwent either PGT-A or conventional IVF. Three blastocysts were screened by next-generation sequencing or were chosen by morphologic criteria in the PGT-A and conventional-IVF groups, respectively, and were transferred successively one by one. The cumulative live-birth rate after up to three embryo-transfer procedures within one year after randomization was the primary outcome. The hypothesis was that PGT-A use would result in a cumulative live-birth rate that was no more than 7 percentage points higher than that after conventional IVF, which constituted the noninferiority margin.

A total of 1,212 patients were randomly assigned: 606 to each trial group. The researchers found that live births occurred in 77.2 and 81.8 percent of women in the PGT-A and conventional-IVF groups, respectively (absolute difference, ?4.6 percentage points). The cumulative frequency of clinical pregnancy loss was 8.7 and 12.6 percent, respectively (absolute difference, ?3.9 percentage points). The groups had similar incidences of obstetrical or neonatal complications and other adverse events.

"Our results showed that the cumulative live-birth rate after conventional IVF alone was not only noninferior to the rate with PGT-A but was numerically higher," the authors write.

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