

New Test Increases Chances of Pregnancy for Couples At-Risk for Failed Pregnancies

By JENNIFER KANNE

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When Kelly and Zubair Harbert married in 1989, they outlined a plan for the next few decades. The central part of the plan -- the part that would be most important and also most heart-wrenching -- was to wait a few years and then start a family. The Laguna Hills couple, both engineers, assumed planning and timing would be the only hurdles to having a child when they were ready.

"It came time when we were going to decide to have children and we thought everything would work," Kelly said.

After trying to conceive a child for two years, they met with fertility specialist Dr. Lawrence Werlin, founder of Coastal Fertility Medical Center in Aliso Viejo and Irvine and known to patients and colleagues as "the Werl."

Kelly and Zubair teamed up with Werlin to figure out why their dream of having children was being thrown off track. They went through procedures like artificial insemination but still Kelly did not become pregnant.

"We sat in his office a couple of times and cried," Zubair said.

Kelly said that although she was only 37, she was worried that nothing would work.

"It's a very emotional thing and then they give you these horrible treatment options," she said.

Werlin recommended In-vitro fertilization as the next step. In-vitro would put sperm and egg cells together in a lab and then implant the embryos produced by the combination into Kelly's uterus.

In-vitro, though, is a gamble. There is no screening process to pluck the healthiest embryos from the group and it can fail for dozens of reasons at every step of the process. Werlin told Kelly and Zubair about a new procedure that he said would increase their chances of success.

Embryos can have too many or not enough chromosomes, resulting in genetic diseases like Downs Syndrome and Cystic Fibrosis. Four groups of patients -- women 38 years and older, women with a history of miscarriage, women who have used In-vitro fertilization and had it fail more than once and men with low sperm counts -- are all at elevated risk for producing embryos without the standard 46 chromosomes.

A new tool called Preimplantation Genetic Diagnosis (PGD) allows doctors to examine the genetic material in embryos and select only the healthiest to implant. The procedure looks at embryos in the early stages of development, when they are only six or eight cells, and takes a close look at the nine chromosomes most commonly affected by genetic defects.

Werlin is the first doctor in Orange County to use PGD and he maintains that the new test can increase the chances of pregnancy for couples at-risk for failed pregnancies.

Kelly and Zubair participated in a study conducted by Werlin to find out if PGD could help couples have success with In-vitro fertilization. He said of the 21 couples that participated in the study, 70 percent of all the embryos were abnormal and 30 percent of the couples had no healthy embryos to implant. The dismal results, Werlin said, steered some of the couples toward options like using donor eggs or even adoption.

"Although it's devastating to the patient to find this out, it helps them emotionally," Werlin said. "It helps them close a chapter in a book that is very distressful."

Werlin was approved to begin a new PGD study in January with 40 more couples.

Kelly and Zubair though, finally got lucky. After enduring painful shots that Kelly had to take nightly with a 2 ½ inch needle and forking over \$3,500 for the PGD testing that their insurance would not cover, the Harberts can now talk about their experience over the gurgles of their squirming son.

Of the Harberts' nine embryos that Werlin examined, only three were viable. All nine looked healthy under a microscope but PGD narrowed the field and allowed Werlin to implant only the three healthy embryos. Kelly and Zubair said the 50 blood tests and several hundred shots they endured were worth the chance that it could work. Kelly said she would have been thrilled if all three embryos implanted.

"I wanted triplets," Kelly said.

She gave birth to their son Joshua on July 31 and Kelly said having one child has kept them busy.

"It's amazing how much work it is," she said.

But the work has been worth it and the Harberts are looking to keep expanding their family. They plan to go back to Werlin in February to start the process again.