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Egg freezing technique could be 'game changer' for would-be parents

BY KIM KOZLOWSKI / THE DETROIT NEWS

Commerce Township — Soon after Julie and Bill VanDerworp got married in 1993, they started trying to have a baby. Although she was 27 and he was 30, the young couple was unable to conceive a child.

Eventually they tried fertility drugs and procedures. Still, no baby.

As the years passed, they tried conceiving with an egg donor. But it wasn't until they turned to a donor whose eggs had been frozen with new technology that she finally got pregnant. Late last year, after spending nearly \$200,000 and trying for more than a decade, the VanDerworps gave birth to a son they named Kent.

"It's been such a long journey, such a long road," Julie VanDerworp said. "But I still can't believe my luck. (Having Kent) is everything I thought it would be. It's so rewarding."

The VanDerworps got the frozen egg from a donor in Michigan's first "egg bank" — made possible by a reproductive technology that allows women to freeze their eggs so they can bear children later in life or after a cancer treatment, which typically leaves women infertile. The egg bank also can be used by women who are either infertile, like VanDerworp, or struggle with genetic issues they don't want their children to inherit by using an egg that's been donated by another woman.

Exactly how many egg banks exist across the country is not known, but there are several, according to the American Society for Reproductive Medicine, a Birmingham, Ala., organization that works to advance reproductive medicine.

And egg freezing is considered experimental and suggested only for women with cancer or other fertility-threatening diseases, according to two position papers by the group.

While some experts hail the fertility advancement, others voice caution, citing the lack of long-term data.

Dr. Michael Mersol-Barg, a reproductive endocrinologist at the Center for Reproductive Medicine and Surgery in Birmingham and creator of the Michigan Egg Bank, said the advancement is as groundbreaking as birth control. Until now, only sperm cells or a fertilized embryo could be cryogenically frozen and later thawed for reproductive purposes.

"It truly is a major game changer," said Mersol-Barg. "There is now real hope. Freezing technology is opening up the opportunity for women to have control over their reproductive choices."

New field raises concern

Dr. Senait Fisseha, a University of Michigan associate professor of reproductive endocrinology and infertility, acknowledged that egg freezing technology is advancing but stressed that there are not enough long-term studies, which concerns many in the field.

U-M offers egg freezing to women facing treatments that would damage their fertility, such as radiation, but it does not offer elective egg freezing.

"At U-M, we have been offering egg freezing for fertility preservation since early 2000, when nobody else in Michigan was doing it," said Fisseha, who is a member of an ASRM ethics committee. "But we just have not marketed it because we just feel it is unethical to go out and tell women to delay their reproduction to do this when there is no data."

In recent decades, reproductive technology has helped people build families when they struggled with infertility. To conceive, many couples have used fertility drugs and procedures such as in vitro fertilization, which harvests eggs from a woman, fertilizes them with male reproductive cells in a laboratory and then transfers the embryos to the woman.

The IVF procedure often leads to excess embryos that are cryogenically frozen until the couple is ready to thaw them and try to have another child.

Technology advancing

But freezing a woman's eggs has posed problems since the egg is one of the largest cells in the human body with significant water content that causes it to form ice crystals during the freezing process, leading to damage. New technologies have changed that in recent years.

Although egg freezing — or, more formally, oocyte preservation — holds "promise," it is an experimental procedure and not an established medical treatment, according to the American Society for Reproductive Medicine.

An ASRM committee has taken two positions on the technology.

"Women who may be considering oocyte cryopreservation, an experimental procedure, must understand and be fully informed about the potential benefits, limitations and risks of this developing technology, as well as the clinical outcomes that reasonably can be expected," according to a 2008 ASRM position paper on the issue.

But another 2008 paper added, "Ovarian tissue cryopreservation and oocyte cryopreservation hold promise for future female fertility preservation."

Last month, a committee met and reviewed more studies that have emerged since then but the current policies still stand, ASRM spokesman Sean Tipton said.

With egg freezing technology evolving, the society also has recommended in its guidelines that the procedure be done under an institutional review board to assure the appropriate science, proper safety and informed consent is being done.

That's why Mersol-Barg launched a study of the experimental procedure in 2008 and worked with Western

Institutional Review Board, a private institutional review board.

The first phase was refining the science to allow for freezing eggs so they wouldn't be damaged, and developing the egg bank by recruiting more than 250 women who donated their eggs. Each donor is compensated \$2,000.

The egg bank has since led to the birth of 24 children, with seven more on the way.

The next phase will be for women to store their eggs if they are facing cancer treatment, and young women who want to bank their eggs for use in the future.

Mersol-Barg said he only wants to make a difference, and his European colleagues have used this technology for decades.

But Fisseha expressed caution.

"As it stands now this should be not be used until we have more data, not only about the technology and whether it works or not but what it means for long term follow-up about the well-being of the offspring being born from this process," she said.

But try telling that to couples like the VanDerworps, who struggled for years with infertility, and finally have a child.

"When he starts smiling," Bill VanDerworp said about his son, "he just melts your heart."

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