Baby Born From Transplanted Uterus (First Time in U.S.)

By Jamie Wells, M.D. — December 4, 2017

A baby was born [2] from a living-donor’s transplanted uterus for the first time in the United States. After a few false starts within Baylor University’s landmark clinical trial, [3] having three of four uterus transplants requiring explantation, this delivery affirms the surgery can yield a truly functional uterus.

Following in the footsteps of Swedish success in leading the charge, this achievement provides great hope for those with uterine factor infertility (UFI). UFI is diagnosed when a woman is born without a uterus or it has been irreparably damaged. For these patients, the prior path to parenthood exclusively entailed adoption or gestational surrogacy. With uterine transplant currently showing such promise, the notion of a women with UFI carrying her own biological child is being realized. Though still considered highly experimental, the procedure is considerably changing the game.

A number of clinical trials are underway in the United States with respect to uterine transplant. This innovative infertility advancement has met with the most success in Sweden. As of 2015 [4], 9 uterus transplants were performed there, with 5 pregnancies and 4 births. Many of the donors were first-degree relatives (e.g. mother, sister) and it seems no deceased donor organs were utilized. Getting to that phase involved years of research and surpassing the challenges of initial problems with organ rejection.

The process is quite involved requiring jumping through many hurdles (as per Cleveland Clinic) [4]:

1. Be eligible (have UFI). Fulfill the clinical trial age requirements, screening processes & likely
unanimous approval after multidisciplinary evaluation.

2. *In Vitro Fertilization.* Endure the process --to freeze embryos for later implantation--which includes: medical stimulation of ovaries for egg retrieval, many procedures, risks etc.

3. Find a donor.


5. After 12 months, once totally healed and without rejection, embryo is implanted.

6. Throughout pregnancy, very closely monitored for signs of rejection by high-risk team (e.g. monthly cervical biopsies, continuous intake of immunosuppressive drugs)

7. Delivery by C-Section.

8. Goal is 1-2 pregnancies then removal of uterus to minimize exposure to anti-rejection medications.

It is quite extraordinary Baylor’s dedicated team and patients made this incredible medical breakthrough possible. With this and early success of the artificial womb [5], the fertility landscape seems wrought with innovation. The latter, though demonstrating positive results to date in lambs (not humans), could theoretically one day reduce co-morbidities and mortality in premature infants. Each is challenging the idea that what was believed to be impossible, could very well become reality.

It is an exciting time with uterine transplantation. But, only with the passage of it will we have a better understanding of any drawbacks for the fetus when it comes to being exposed to such immunosuppressive medications *in utero*. Or, any others. Prohibitive nature of costs, bioethical ramifications down the line and so forth will become a more meaningful part of the narrative as the many considerations evolve. Great reward often requires much risk. Too soon to tell.

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