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TODAYS HEALTH FOR THE EMPOWERED WOMAN

WOMB TRANSPLANT

As this goes to press, a month ago word came from Great Britain that a patient who had received a womb (uterus) transplant had successfully given birth nine weeks early to an apparently healthy but premature baby! I have been inundated with questions from friends and former patients: "how is this possible?" From the outset I must say that as of yet I have not read any scientific or journal accounts of how this was accomplished. Neither am I a transplant surgeon or a specialist in maternal fetal medicine. But I am a board certified Obstetrician Gynecologist and female anatomy and surgery is my area of expertise. So let us look at the issues at play here. The patient was born without a uterus. About one in two thousand women will have some sort of uterine anomaly at birth but complete absence is rare. She is a female and must therefore have ovaries. The vagina is developed separately during development and in this case probably ended in a blind pouch. We are told that the donor was the patient's 63 year old mother. So genetically she was probably a match which decreases the risk of rejection. However, the uterus of a 63 year old woman is atrophic meaning smaller in size and non functional secondary to menopause. It would have to be removed with its complicated blood vessels intact, along with the cervix (the mouth of the uterus). That being done, in order to perform the transplant, the blood vessels would have to be connected to the recipients aorta and connected to the net of arteries and veins that merge with the ovaries. The ligaments that hold the uterus in place would have to be connected but the recipient had no uterus so what were they connected to? How was the cervix stitched into the blind vaginal pouch without damaging the bladder or ureters? Somehow they did it. Next come anti rejection drugs which are extremely toxic and potentially a cause of major birth defects to a developing fetus. I can only assume that conception was either in vitro fertilization (test tube baby) or intrauterine sperm placement. The atrophic uterus would need to have been prepared for pregnancy by massive doses of female hormones. Once conception was confirmed by ultrasound there would have been great worries over where the fertilized egg would have implanted since a potentially life threatening uterine rupture could occur if the placenta grew along the implantation scar. It also baffles me that the uterus grew to 31 week size (normal pregnancy is 40 weeks) without tearing out suturing from the implantation or disrupting the incredible maze of arteries that are essentially for fetal growth. I have not read of any birth defects other than prematurity with the infant. I do believe that the physicians elected to deliver the baby early to avoid those consequences and most likely would have added steroids to her drug regime to promote fetal lung development. I am making many assumptions here based on my years of gynecologic surgery and obstetrics. However, these would have been the major obstacles to overcome and the whole process was and is miraculous. I look forward to the scientific article in our journals that explain just how this was done. It will be a long time before this becomes commonplace but look at how we now accept the concept of "test tube babies" . There are huge medico-legal implications also that

would impede rapid acceptance in the United States. There are ethical problems as well and insurance companies are not likely to pay for “experimental procedures”. So for now we should rejoice in a happy story.