

Analysis: Fertility Preservation

Veronica Gómez-Lobo

ABSTRACT

This commentary considers the viability of ovarian tissue cryopreservation (OTC) in the case of an adult who qualified for brain death. Although there has been some success with OTC in achieving pregnancy when the tissue is reimplanted in the original donor, attempting OTC in the case under discussion would have not been medically feasible.

In my position at Children's National Medical Center, my responsibilities include assisting in fertility preservation counseling and procedures for girls with cancer who are scheduled for treatments that could limit their future fertility. This experience is what prompted the ethics team at MedStar Washington Hospital Center to contact me for a second meeting with Ms D's family, described in the article, "The Case of Ms D: A Family's Request for Posthumous Procurement of Ovaries."¹

In regards to ovarian tissue cryopreservation (OTC), there are a few important points worth highlighting. While this procedure is still considered experimental, it has resulted in more than 60 documented pregnancies (and probably more undocumented). In all of these procedures, the ovarian tissue is placed back in the *original* donor. In Ms D's case, if her family had requested OTC, the tissue

would have been transplanted into someone else, and the available recipients might not have had any blood relation to Ms D.

This sort of request, were it to have occurred, would not have precedent for a successful pregnancy. It is likely that ovarian tissue implanted into someone else would be rejected, and it would submit the recipient to risks of immunosuppression and possibly infectious risk. In addition, pregnancy from *in-vitro* maturation of oocytes from ovarian tissue has not been accomplished to date, although there have been increasing scientific advances in this direction; whether fertilization becomes possible in the future will also depend on federal rules regarding use of embryos.

Moreover, Ms D had not consented to the surgery or experimental protocol, and the current protocol specifically states that the tissue belongs to the patient, which, on this ground at least, would have prevented posthumous donation of her reproductive materials.

PATIENT AND FAMILY CONSENT

This case has been anonymized, but no other details have been de-identified or modified. The family provided consent for the patient's case to be used and discussed in this publication, which they believe the patient would have wanted.

NOTES

1. L. Guidry-Grimes, "The Case of Ms D: A Family's Request for Posthumous Procurement of Ovaries," in this issue of *The Journal of Clinical Ethics* 27, no. 1 (Spring 2016).

Veronica Gómez-Lobo, MD, is Director of Pediatrics and Adolescent Gynecology at MedStar Washington Hospital Center, is Director of the Disorder of Sexual Development Clinic, and is Director of Pediatric and Adolescent Gynecology at Children's National Health System in Washington, DC., Veronica.Gomez-Lobo@medstar.net.

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