



Live donor uterine transplant with vascular reconstruction: Advancing reproductive medicine

Damar rekonstrüksiyonuyla canlı donörden rahim nakli: İlerleyen üreme tıbbı

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Dear Editor,

Uterine transplantation (UTx) has emerged as a solitary intervention for women suffering from absolute uterine factor infertility; it effectively restores both reproductive anatomy and functionality⁽¹⁾. This surgery completely transplants the uterus, cervix, surrounding ligaments, blood vessels, and a vaginal cuff, offering a substitute for surrogacy and adoption to achieve motherhood⁽²⁾. With a record of 90 cases and 49 successful deliveries, the practicability of UTx is unquestionable as it shifts from being a research concept to a fully-fledged clinical practice⁽¹⁾.

Recently, a groundbreaking UTx procedure was performed in the United Kingdom, featuring the use of a living donor. The recipient, a 34-year-old woman diagnosed with Type I Mayer-Rokitansky-Küster-Hauser syndrome, had no past medical and psychological records and had not undergone any prior surgical procedures. The donor, her 40-year-old sister, also had no notable medical condition and had given birth through two normal vaginal deliveries at full term. This rare case brings to light several pioneering aspects. First, it signifies the first case of vascular reconstruction within UTx. The complexity arose from the atypical vasculature, where two right-sided uterine arteries were encased into a common stem and anastomosed to the recipient's external iliac artery. Only two prior UTx cases ventured into vascular reconstruction.

Furthermore, this case introduces an innovative approach to venous drainage using the recipient's inferior epigastric vein. Traditionally, UTx procedures relied on uterine veins or utero-ovarian veins for venous drainage, which required lengthy segments of the uterine vein.

In contrast, this case sought shorter uterine vein lengths, prioritizing drainage from the utero-ovarian vessels. This unforeseen adaptation provides another option for venous drainage when conventional venous anastomoses are impossible. This case represents the first use of alemtuzumab as an induction immunosuppressive agent in UTx⁽³⁾.

This milestone, marking the inaugural womb transplant, has been hailed as a fertility landmark, offering hope to numerous infertile women and ushering in a new era with the promise of enabling childbirth for many every year.

Ethics

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