Limited Availability of Deceased Uterus Donors: A UK Perspective

Benjamin P. Jones, BSc (Hons), MRCOG,1,2 Srdjan Saso, BSc, PhD, MRCOG,1,2 Isabel Quiroga, DPhil, FRCS,3 Joseph Yazbek, MD, MRCOG,1,2 and J. Richard Smith, MD, FRCOG1,2

We read with interest the article by Kristek et al1 that summarizes the limitations of donor availability for uterine transplantation (UTx) using deceased donors. We applaud the authors’ international assessment of deceased donor availability and agree it may limit the future clinical applicability of UTx. Our team has recently commenced a UTx research program in the United Kingdom using donors after brain death (DBD), The INvestigational Study Into Transplantation of the Uterus (INSITU).

In the United Kingdom between 2018 and 2019, out of 6991 potential deceased donors, 17% (n = 1176) were excluded because of an absolute medical contraindication to solid organ donation.2 Of those 5813 potential donors, 1600 eventually proceeded with organ donation, just 962 were DBD, with the remaining 638 donating after circulatory death (DCD).2 In the context of UTx, a fertility restoring, quality of life-improving procedure, after circulatory death (DCD).2 In the context of UTx, we have imposed similar selection criteria to those proposed by Kristek et al1 as standard donor criteria, including the necessity for donors to be premenopausal, albeit up to the age of 50, have a body mass index <30 kg/m2,2 resulting in an estimated donor availability of <150 annually before the implementation of further criteria that determine uterine functionality and suitability including parity, cervical smear history, and reproductive and obstetric outcomes.

Although the use of selection criteria facilitates the minimalization of confounding variables and aims to optimize outcomes following UTx, they will undoubtedly currently impact donor availability, highlighting the need for careful consideration.

We, therefore, support the authors’ proposal of extended donor criteria, particularly the alleviation of only using multiparous donors. The vast majority (93%) of UTx procedures undertaken so far have been using multiparous donors.3 This trend undoubtedly followed the first DBD UTx performed globally, which was undertaken in Turkey using a nulliparous donor.4 The recipient subsequently suffered repeated in vitro fertilization failure and recurrent miscarriages. Despite being largely attributed to the nulliparity of the donor, it is more likely a dysbiotic vaginal microbiome from the intestinal neovagina in the recipient negatively impacted reproductive outcomes.3 Although the only way to truly determine the reproductive potential of a uterus is following conception, pregnancy, and childbirth, the probability of a macroscopically and ultrasonographically normal uterus having undiagnosed uterine factor infertility is remote.

In addition, the inclusion of ‘no miscarriages’ as a standard donor criterion may be overly exclusive, given the vast majority of miscarriages are sporadic in nature because of reasons unrelated to the uterus, such as embryonic aneuploidy. As around a quarter of women have sporadic miscarriages, this may exclude a significant proportion of otherwise suitable donors. Moreover, the decision to not consider donors with previous Caesarean sections may exclude another quarter of potential donors. For INSITU, we will consider donors who have had a previous Caesarean section, as well as those with 1–2 previous miscarriages, although donors with recurrent miscarriages (≥3) will not be considered.6

We further concur that the use of DCD is currently ill-advised owing to the unpredictable impact of prolonged warm ischemia on subsequent uterine functionality and reproductive outcomes. However, in the context of the numbers presented herein, it would increase the number of potential donors greatly, highlighting the potential benefit for further consideration and research in this area.

REFERENCES


