Letters to the Editor

Mirror exchange of donor gametes should also accommodate scientific research

Sir,
We read with great interest the article by Pennings (2005) who proposed a system of mirror exchange in gamete donation. The proposed scheme, however, fails to take into account the overwhelming demand for donor gametes in scientific research; particularly, somatic cell nuclear transfer (SCNT) for the derivation of patient-specific stem cells (Hwang et al., 2004, 2005), which have opened up new avenues of therapy for various human diseases. Although no clinical trials have yet been carried out with nuclear transfer stem cells, studies with animal models have yielded extremely promising results that can readily be extrapolated to the human model (Rideout et al., 2002; Lanza et al., 2004). Nevertheless, a major impediment against further rapid advances in this field is the severe shortage of donor oocytes for scientific research.

No doubt, it may be argued that mirror exchange donor oocytes may be better utilized for infertile recipients in clinical assisted reproduction rather than scientific research. Nevertheless, it is imperative that provisions should also be made for the personal wishes of the oocyte donors themselves. They should be given an additional choice to contribute to scientific research, instead of being restricted to only helping infertile women to conceive.

It is envisioned that the majority of patients would prefer to donate their oocytes for SCNT research rather than have a potential biological offspring in an unknown family. Moreover, the abolishment of gamete donor anonymity in several countries (Lebech, 1997; Johnston, 2002; Fortescue, 2003) could make the situation less comfortable for mirror exchange oocyte donors, who may already feel pressurized to donate in return for donor insemination. Serious ethical and moral issues are bound to arise, if mirror exchange oocyte donors themselves fail in assisted conception, but are subsequently contacted by their biological offsprings several years later.

Under such circumstances, it is imperative that the available choices for mirror exchange oocyte donors be extended to include SCNT research, instead of being restricted only to assisted conception. This is ethically justifiable, because donation to scientific research can also be seen as a positive reciprocal contribution to society, in return for donor insemination. In any case, mandatory counselling should be given to enable the prospective donor to make an informed decision on their choice.

Additionally, it is also proposed that mirror exchange oocyte donation should be in the context of sharing the prospective donor’s cohort of oocytes retrieved from a treatment cycle, rather than subjecting her to an additional stimulation cycle exclusively for oocyte donation. This would reduce the medical risk of ovarian hyperstimulation syndrome (Budev et al., 2005). Because of likely imbalances in mirror exchange gamete donation arising from an unequal ratio of oocyte and sperm donors, as well as the unequal effort expected from female partners compared with male partners (Pennings, 2005), an equal split of the patient’s cohort of oocytes for donation may not be justified in this case. Perhaps, a threshold number of retrieved oocytes from the prospective donor should be set for each treatment cycle that if not exceeded would completely excuse her from donation. Any excess supernumerary oocytes above this threshold number can be donated either to infertile women or for scientific research, according to the personal wishes of the patient. Perhaps, a total of 10 retrieved oocytes from the prospective donor can be considered a suitable threshold number, since the chances of conception are unlikely to be impaired (Stojkovic et al., 2005).

References

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