J Assist Reprod Genet (2006) 23:381–382
DOI 10.1007/s10815-006-9070-0

EDITORIAL NOTES

Donation of surplus frozen embryos for stem cell research or fertility treatment—Should medical professionals and healthcare institutions be allowed to exercise undue influence on the informed decision of their former patients?

Boon Chin Heng

Received: 13 August 2006 / Accepted: 23 August 2006 / Published online: 4 October 2006

Abstract The increasing availability of clinical assisted reproduction has led to an accumulated surplus of frozen embryos within fertility clinics worldwide. Couples that have attained success in clinical assisted reproduction, and have no further desire to reproduce; are often faced with an agonizing dilemma on what to do with their surplus frozen embryos—whether to simply discard them, or donate either for scientific research or to other infertile couples. There is a risk that persons or institutions directly involved in procuring donated embryos will prioritize their own interests over the informed choice of the patient to donate either for scientific research or to other infertile couples. Very often, formerly infertile couples who have attained reproductive success feel an overwhelming sense of gratitude to the fertility doctor handling their treatment. Hence, there is a risk of medical professionals exercising undue influence on their former patients, to sway the final decision to their preferred outcome. In the private practice setting, the preferred outcome would likely be donation for the treatment of other infertile couples; whilst in the case of medical professionals affiliated with research or academic institutions, the preferred outcome would likely be donation for stem cell research.

Keywords Cryopreserved · Donation · Disposal · Embryos · Research · Stem cells · Treatment

In recent years, clinical assisted reproduction has increasingly become commonplace worldwide, which in turn has led to an accumulated surplus of frozen embryos within fertility clinics [1, 2]. Couples that have attained success in clinical assisted reproduction, and have no further desire to reproduce; are often faced with an agonizing dilemma of what to do with their surplus frozen embryos—whether to simply discard them, or donate either for scientific research or to other infertile couples [3, 4].

In cases whereby former patients have decided to put their embryos to better use rather than simply discarding them, there appears to be an overwhelming preference for scientific research rather than the treatment of infertile couples [3–5]. Hammarberg and Tinney [3] reported that 48% of couples surveyed at an Australian fertility clinic donated their surplus embryos to stem cell research, in contrast to only 18% who donated for the treatment of other infertile couples. Similarly, Bangsboll et al. [4] reported that more than half of former patients at a fertility clinic in Demark agreed to donation of their surplus outdated embryos for research, whereas less than one-third agreed to donation to other infertile couples.

This bias in choice could arise from the fact that most former patients are not psychologically comfortable in begetting unknown biological offspring, which is often visualized as siblings of their legitimate children [3–6]. In countries where donor anonymity has been abolished and disclosure is possible after children born of donated embryos have attained a certain age i.e. 18 years old [7, 8], the situation can be even more psychologically disturbing for prospective donor couples. On the other hand, former patients who have decided to donate for the treatment of other infertile couples, often cite their perception of frozen embryos as 'living entities,' and their subsequent moral inhibition against the destruction of a potential human life in either stem cell research or embryo disposal [3–6]. Whatever the case, it is imperative that patients should be allowed to make a free and informed choice without any undue influence or pressure from persons or institutions with conflicting interests and hidden agendas.

B. C. Heng (✉)
National University of Singapore,
5 Lower Kent Ridge Road,
119074 Singapore
e-mail: denhenga@nus.edu.sg

Obviously, the first link in the supply chain of donated embryos is the interaction between former patients with the healthcare institution in which they have previously received fertility treatment, and where their surplus frozen embryos are being stored. Usually, most fertility clinics will take the initiative to contact former patients, once the mandated storage period for their frozen embryos has expired. The person primarily involved would usually be the fertility doctor who previously oversaw treatment of the patient.

There is therefore a risk that persons or institutions directly involved in procuring donated embryos will prioritize their own interests over the informed choice of the patient to donate either for scientific research or to other infertile couples. Very often, formerly infertile couples who have attained reproductive success feel an overwhelming sense of gratitude to the fertility doctor handling their treatment. This would imply that medical professionals can easily exercise undue influence on their former patients, and sway the final decision to their preferred outcome.

In the private practice setting, whereby fertility treatment is overwhelming profit-driven, and where medical professionals are seldom involved in research, the preferred outcome would obviously sway towards embryo donation for the treatment of other infertile couples. Even if embryo commercialization is prohibited and no profit is allowed to be made directly from the transaction of frozen embryos between donor and recipient; it must be remembered that there is still much opportunity for profit-making in medical fees arising from laboratory and clinical services rendered to the recipient. On the other hand, in the case of medical professionals directly involved in research and where the fertility clinic is affiliated to a research or academic institution, there is now a tendency for the preferred outcome to sway towards embryo donation for scientific research.

Hence, a solution for greater transparency may be to disallow medical professionals and healthcare institutions from directly contacting their former patients on what to do with their surplus frozen embryos. Instead, an independent government-controlled agency should be set up to liaise with former patients with regards to their frozen embryos, and provide much-needed professional counseling, so as to enable a free choice and informed decision by former patients. Perhaps CECOS (Centre d'Etude et de Conservation des Oeufs et du Sperme humains) in France can serve as a good model [9].

References

1. Edwards RG, Beard HK. Destruction of cryopreserved embryos. UK law dictated the destruction of 3000 cryopreserved human embryos. Hum Reprod. 1997;12(1):3–5.
2. Bankowski BJ, Lyerly AD, Faden RR, Wallach EE. The social implications of embryo cryopreservation. Fertil Steril 2005;84(4):823–32.
3. Hammarberg K, Tinney L. Deciding the fate of supernumerary frozen embryos: a survey of couples' decisions and the factors influencing their choice. Fertil Steril 2006;86(1):86–91
4. Bangsboll S, Pinborg A, Yding Andersen C, Nyboe Andersen A. Patients' attitudes towards donation of surplus cryopreserved embryos for treatment or research. Hum Reprod 2004;19(10):2415–9.
5. McMahon CA, Gibson FL, Leslie GI, Saunders DM, Porter KA, Tennant CC. Embryo donation for medical research: attitudes and concerns of potential donors. Hum Reprod 2003;18(4):871–7.
6. Nachtigall RD, Becker G, Friese C, Butler A, MacDougall K. Parents' conceptualization of their frozen embryos complicates the disposition decision. Fertil Steril 2005;84(2):431–4.
7. Janssens PM, Simons AH, van Kooij RJ, Blokzijl E, Dunselman GA. A new Dutch Law regulating provision of identifying information of donors to offspring: background, content and impact. Hum Reprod 2006;21(4):852–6.
8. Hampton T. Anonymity of gamete donations debated. JAMA 2005;294(21):2681–3.
9. Guerin JF. The Donation of Gametes is Possible without Paying Donors: Experience of the French CECOS Federation. Centre for the Cryopreservation of Eggs and Semen. Hum Reprod 1998;13(5):1129–30.