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Position Statement of the Malta College of Pathologists on the proposed Bill to Amend the Embryo Protection Act of 2012.

This statement has been endorsed by the majority of the members of the College.

Introduction

The Malta College of Pathologists wishes to express its views in connection with the proposed amendments to the Embryo Protection Act of 2012. The College represents healthcare professionals who provide diagnostic services in the various pathology specialties. It includes the speciality of genetics, hence the emphasis on some of the issues highlighted.

Embryo Freezing

1. The interchangeable use of 'embrijun', 'bajda fertilizzata', 'ċellola fertilizzata' and occasionally 'ċelloli tal-bajd fertilizzati' in the Maltese version is not only scientifically inaccurate, but imparts the perception that the embryo is simply a mass of cells devoid of human identity. This demonstrates a general disrespect for human life. The College notes and strongly agrees with the proposal made in Parliament that only the term 'embryo' is used as this will reduce ambiguity.
2. Even at the one cell stage the human embryo is a genetically complete human being and is distinct from both parents. It is genetically autonomous and, in the right environment, it has the full potential to develop into an adult human being, with its own unique genetic programme. Spermatocytes or oocytes (sperm and egg) live less than 3 days whilst, once implanted, the embryo, as in the natural life process, can live for around a 100 years. It is irrelevant that many may be lost by miscarriage in early pregnancy.
3. Embryo freezing, of necessity, implies a thawing process which carries its own specific risk of mortality^{1, 2, 3}.
4. During the frozen phase, despite adequate quality processes, embryos will always be at risk from technical failures of the equipment and materials they are stored in.

5. Embryo donation is being proposed for the extra (unselected) embryos. International research analysing behaviours in couples undergoing IVF shows that more than 80% strongly refute the idea of donating spare embryos for adoption⁴. Additionally, same-sex couples, given the choice, would rather opt for a genetically related embryo rather than accept the adoption of these non-selected embryos. The inevitable consequence would be an increase in the number of embryos frozen for indefinite time periods giving rise to major ethical consequences such as, for example, the issue of belonging upon the death or separation of the parents. The College is very concerned that this would be the first step for these unclaimed embryos to be used for research purposes or that they will ultimately be eliminated.
6. Though statistics showing more advantageous birth rates following implantation of thawed, frozen embryos, as opposed to fertilisation of thawed frozen oocytes and implantation of the resulting embryo, have been quoted, there is also published literature showing comparable live birth rates⁵, that is between the proposed and present methods.

Donor Anonymity.

1. Apart from licensing facilities, the Embryo Protection Authority has also now been tasked with the vetting and acceptance of gamete donors. The proposed changes state that the Authority will match embryos with parents – it is imperative that the ‘matching’ methodology be clearly defined. In addition, the College strongly recommends that the law should specify that there should be no material or other form of reward for gamete donation.
2. A family history obtained at the time of gamete donation may not be sufficient to exclude genetic disease. Simply as an illustration of this point, the example of a young man with Huntington’s disease, an inherited brain disorder which may not manifest itself until the age of 40 years, may be taken. At the time of sperm donation, this individual may as yet be completely unaware of his genetic condition.
3. The point above also holds true for other conditions that manifest themselves later in life, such as inherited cardiac conditions, an inherited predisposition to cancer as well as other diseases such as hypercholesterolaemia. Access to the truncated anonymised donor medical history will in such cases not be useful, unless of course the Authority will continue to update the relevant clinical information, in which case anonymity becomes untenable.
4. Genetic testing technology is advancing rapidly, and the College recommends that a blood/tissue sample from the gamete donor is retained to facilitate potential future testing.
5. The College is also concerned with the remote but plausible possibility that two biological half-siblings may bear a child with severe genetic disease on account of the gamete donor anonymity.

6. The provision of a once-only gamete donation reduces the above risk, however the College notes that the number of cycles allowed from the same donation is not specified. Legislation across Europe varies on this issue, and provisions establishing specific numbers of live births allowed from a single donor are sometimes included; this should be considered.

Surrogacy

1. Surrogacy is known to result in a number of problems, for the surrogate mother and the carried pregnancy. Psychological issues, which may arise in the child born of a surrogate mother, will relate to a lack of a sense of belonging and identity enforced by the proposed impossibility of identifying the biological parents.
2. An additional concern arises when the child is diagnosed during pregnancy or at birth with a chromosomal or developmental abnormality. Responsibilities should be clearly assigned in the law with these considerations in mind.
3. Although the proposed law explicitly specifies altruism as the only legitimate reason for surrogacy, the College is concerned that this may open the door to potential exploitation of women, especially ones who are already in a vulnerable situation due to their life circumstances. In addition, the right of the surrogate mother to medical treatment may be compromised if she develops a medical condition which necessitates treatment that may adversely affect the developing embryo.

Conclusion

The issues highlighted in this statement warrant further discussion among stakeholders. Any interest to found a family must not override the right to life of the embryo and the rights of prospective parents need to be balanced with those of the embryo, from fertilisation onwards.

References:

1. Debrock S1, Peeraer K2, Fernandez Gallardo E2, De Neubourg D2, Spiessens C2, D'Hooghe TM2. Vitrification of cleavage stage day 3 embryos results in higher live birth rates than conventional slow freezing: a RCT. *Hum Reprod*. 2015 Aug;30(8):1820-30.
2. ESHRE Special Interest Group of Embryology, Alpha Scientists in Reproductive Medicine. The Vienna consensus: report of an expert meeting on the development of art laboratory performance indicators, Human Reprod ESHRE Special Interest Group of Embryology. *Human Reproduction Open*, Volume 2017, Issue 2, 12 July 2017, hox011. <https://doi.org/10.1093/hropen/hox011>
3. Vladimirov IK, Tacheva D and Diez A. Theory about the Embryo cryo-treatment. *Reprod Med Biol*. 2017; 16(2):118–125
4. Kovacs GT, Breheny SA, Dear MJ. Embryo donation at an Australian university in-vitro fertilisation clinic: issues and outcomes. *Med J Aust*. 2003 Feb 3;178(3):127-9.

5. Herrero L, Pareia S, Aragonés M et al. Oocytes versus embryo vitrification for delayed embryo transfer: on observational study. *Reprod Biomed Online*. 2014 Nov;29(5):567-72. Erratum in *Reprod Biomed Online*. 2015 Feb;30(2):208.