

The new strategy that makes 100% survival rate possible for human oocyte and embryo vitrification

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Past 18 years, due to vast clinical results exceeding 2,500,000 cases in over 75 countries, the open vitrification system developed by the presenter has been able to make >90% of human oocytes and embryos survive after vitrification, and besides it being extremely effective clinically, it had also proved that virus infection through LN2 did not actually exist. The last remaining challenge was to rescue valuable oocytes that still had led to death, and making improvements to a noninvasive protocol that makes saving possible for women in true difficulty and pain, from low-grade oocytes in older patients and cancer women. The strategy of 100% survival consisted of decreasing cell injury due to osmolarity changes, considered to be the main adverse factor of the vitrification. Deciding to eliminate the primary factor that prevented oocyte 100% survival led to the current method. To minimize the osmotic pressure failure, converting to trehalose which has higher vitrification-forming ability in VS increased viscosity, and minimizing the CPAs concentration have been implemented. This vitrification method was completed as the extremely effective and safe noninvasive vitrification (The cryotec method: 2012) that attains approximately 100% survival rate after vitrification in oocytes/embryos derived from needless to say, general patients, and also in low-grade oocytes and embryos derived from older patients and cancer patients. Already >400,000 cases in 65 countries have been implemented especially in Europe and the US, and with this high survival rate and excellent clinical results, ordinary methods of advanced infertility facilities in the world are changing.

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