High pregnancy rates in women of different age groups following frozen blastocyst transfer without preimplantation genetic testing in Singapore

Wei Hou Lim[1], Pei Fang Yap[1], Heng Hao Tan[1], Colin Soon Soo Lee[2]

[1]Alpha International Women's Specialists, Singapore, [2]Alpha IVF & Women's Specialists, Petaling Jaya, Selangor, Malaysia

ABSTRACT

Introduction: Frozen blastocyst transfer has been shown to significantly improve the pregnancy outcomes in IVF patients of all ages compared to fresh embryo transfer. In Singapore, preimplantation genetic testing (PGT) is not made available to all IVF patients unless certain requirements are met. This study aimed to examine the pregnancy outcomes of IVF patients with different maternal age groups undergoing frozen-thawed blastocyst transfer without PGT. **Materials and Methods:** A total of 1,026 frozen embryo transfer cycles with a total of 1,561 blastocysts transferred from January 2020 to December 2023 were retrospectively analyzed. The outcome measures were positive beta-hCG pregnancy rate and clinical pregnancy rate stratified by maternal age (i.e. ≤35 years, 35-39 years and ≥40 years). Clinical pregnancy is defined as the presence of an intrauterine gestational sac under ultrasound scanning 6 weeks after embryo transfer. **Results:** An average of 1.5 blastocysts was transferred per replacement. For all ages, positive beta-hCG pregnancy rate was 70.4% and clinical pregnancy rate was 58.3%. The positive beta hCG pregnancy rate declined from 83% for women under 35 years old to 75.5% for women 35-39 years old to 48.7% for women older than 40 years old. Comparatively, the clinical pregnancy rates of frozen blastocyst transfer for women under 35 years old, women 35-39 years old and women older than 40 years old were 70.9%, 64.8% and 34.2% respectively. **Conclusions:** Frozen blastocyst transfer can result in a high pregnancy rate in infertile IVF women without PGT.