

FREEZE-ALL, OOCYTE VITRIFICATION OR FRESH EMBRYO TRANSFER? LESSONS FROM AN EGG-SHARING DONATION PROGRAM



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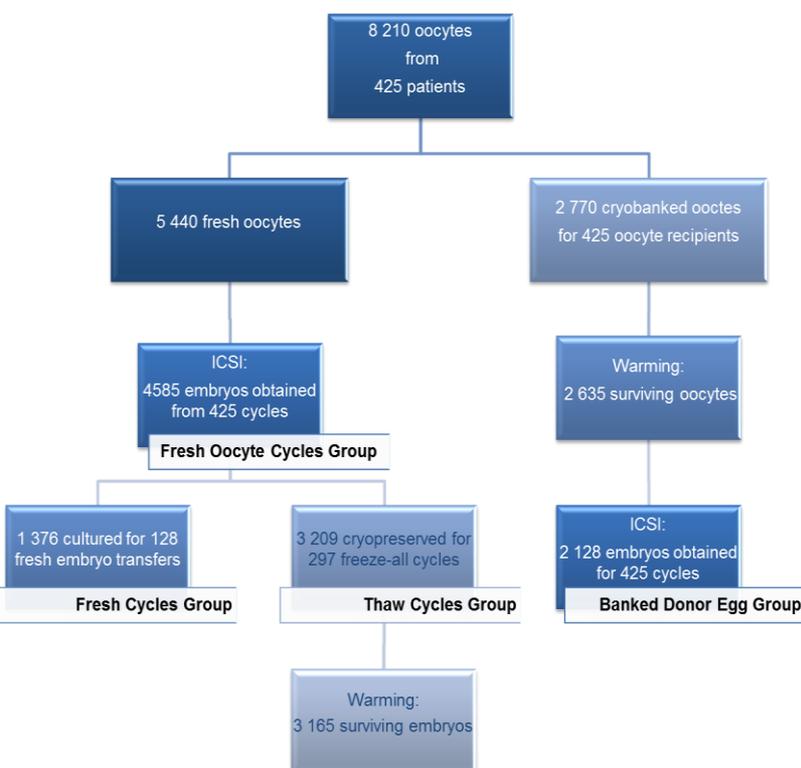
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INTRODUCTION

The cryopreservation of oocytes is a popular technique that is useful in oocyte donation. It has been reported that COS is associated with impaired endometrial receptivity. In frozen–thawed cycles, when COS is not performed, pregnancy rates have been reported to be higher than in fresh cycles. Considering this, the freeze-all policy has emerged as an alternative to fresh embryo transfers. However, while it has been suggested that embryo transfer in natural or endometrium-prepared cycles is a better approach than the transfer during a COS cycle, the question about vitrification of oocytes or embryos remains under debate. Therefore, the present study investigated which approach leads to better results, embryo vitrification, oocyte vitrification, or fresh embryo transfer in controlled ovarian stimulation (COS) cycles?

MATERIALS AND METHODS



RESULTS

Variable	Fresh cycles	Thaw cycles	Banked donor	p
n	128	297	425	
Usable embryos	36.4% ^a	NA	39.7% ^b	0.047
Pregnancy	39.8% ^c	71.4% ^d	49.6% ^e	<0.001
Miscarriage	9.4	10.8	12.8	0.679
Implantation	37.2% ^f	67.3% ^g	43.0% ^h	<0.001

a#b c#d#e f#g#h

Implantation			
Experimental Groups	Fresh Cycles	Banked Donor	Thaw Cycles
Fresh Cycles	-	RC=3.5%	RC=11.5%
Banked Donor Egg	-	-	RC=5%
Pregnancy			
Experimental Groups	Fresh Cycles	Banked Donor	Thaw Cycles
Fresh Cycles	-	OD: 1.24 (IC:1.16-1.38)	OD: 1.83 (IC:1.35-2.48)
Banked Donor Egg	-	-	OD: 1.27 (IC:1.17-1.44)

CONCLUSION

Oocyte vitrification followed by ICSI leads to lower embryo developmental competence when compared to fresh insemination procedures.

However, pregnancy and implantation rates are higher when embryos are transferred into a “more receptive” endometrium free of the adverse effects of gonadotrophin.

Therefore, the use of this technology for egg donation and cryobanking programmes is a good alternative. In addition, our findings demonstrate that the embryo freeze-all policy leads to exceptional clinical outcomes and is an excellent alternative to fresh embryo transfer.