FRESH EMBRYO TRANSFER VERSUS FREEZE-ALL STRATEGY IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME UNDERGOING INTRA-CYTOPLASMIC SPERM INJECTION

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Introduction

Intracytoplasmic sperm injection includes ovarian stimulation to retrieve mature oocytes, fertilize them by sperms. Then embryo transfer after endometrial preparation. This could be done by fresh transfer or frozen embryo transfer in case of retrieval of a high number of oocytes.

Polycystic ovary syndrome is a hormonal disorder in which the ovaries produce abnormal amounts of androgens and develop numerous follicles which they fail to release, leading to cycle irregularities, infertility, and high androgen levels.

During ovarian stimulation in polycystic ovary syndrome, it is advised to use gonadotrophin releasing hormone antagonist protocol.

Aim of the Work

The aim of this work was to compare pregnancy rates between fresh embryo transfer and frozen embryo transfer as a part of freeze all strategy in patients with polycystic ovary syndrome.

Patients and Methods

70 Patients having polycystic ovary syndrome and indicated for intra-cytoplasmic sperm injection are enrolled in a prospective randomized study. Patients are selected with the fulfillment of the inclusion criteria.

patients are randomly allocated into two groups to study the pregnancy rates between fresh embryo transfer versus frozen embryo transfer as a part of freeze-all strategy.

Group A includes patients undergoing fresh embryo transfer at the same cycle of ovulation induction whereas, Group B includes patients undergoing freeze-all strategy and embryo transfer in a subsequent cycle.

Results

Table 1: Comparison between the two studied groups regarding implantation.

	Fresh embryo transfer group		Frozen embryo transfer group		X^2 P value
	No	%	No	%	
Implantation					
No	14	35	12	30	0.228
Yes	26	65	28	70	0.406 N.S.

X^2 = Chi square test P was significant if ≤ 0.05
N.S. = Not significant

Table 2: Comparison between the two studied groups regarding clinical pregnancy and ongoing pregnancy.

	Fresh embryo transfer group		Frozen embryo transfer group		X^2 P value
	No	%	No	%	
Clinical pregnancy (+ve pulsations 5 wks)					
No	16	40	13	32.5	0.487
Yes	24	60	27	67.5	0.32 N.S.
Ongoing pregnancy (12 wks viable)					
No	17	42.5	13	32.5	0.853
Yes	23	57.5	27	67.5	0.244 N.S.

X^2 = Chi square test P was significant if ≤ 0.05
N.S. = Not significant

Table 3: Comparison between the two studied groups regarding multiple pregnancy, chemical pregnancy and OHSS.

	Fresh embryo transfer group		Frozen embryo transfer group		X^2 P value
	No	%	No	%	
Multiple pregnancy					
No	35	87.5	34	85	0.105
Yes	5	12.5	6	15	0.500 N.S.
OHSS					
No	39	97.5	40	100	1.013
Yes	1	2.5	0	0	0.985 N.S.

X^2 = Chi square test P was significant if ≤ 0.05
N.S. = Not significant

Conclusion

Our results showed that there was no significant difference in fertility success rates between the fresh and the frozen embryo transfer cycles using GnRH-antagonist protocol and GnRH-agonist as a trigger in women diagnosed with PCOS and aging 20 – 35 years with E2 level between 3000 – 4000 pg/ml at the day of ovulation triggering.