

OBSTETRIC OUTCOME IN FRESH EMBRYO TRANSFER VERSUS FROZEN - THAWED EMBRYO TRANSFER

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Introduction

At first, fresh embryo transfers were viewed as superior and produced significantly greater success rates. Nowadays, the process of freezing and thawing embryos has significantly improved. So, the choice between fresh vs. frozen transfer is much more nuanced.

Since the first live birth following the transfer of thawed embryos in 1984, the proportion of frozen embryo transfers in the United Kingdom has increased from 10.1% in 1991 to 41.2% in 2019.

It is known that obstetric outcomes in singleton ICSI pregnancies are worse than those after spontaneous conceptions.

With regard to maternal complications, some studies had showed that frozen- thawed ET was associated with lower risks of placenta previa and preterm delivery than fresh ET. On the other hand, frozen-thawed ET may contribute to an increased risk of preeclampsia and gestational diabetes mellitus.

In this study, we compared between the obstetrics outcomes of fresh versus frozen embryo transfer.

Aim of the Work

The aim of this study was to analyze the obstetric outcomes in singleton pregnancies achieved after fresh embryo transfer versus transfer of frozen-thawed embryo, to compare their effects on some major obstetric complications after ICSI cycles that have not been reported in previous studies.

Patient and Methods

Prospective cohort study wasdone on 130women after approval of the ethics committee of Alexandria faculty of medicine. They were divided into two groups.

Group A: Pregnancy after fresh embryo transfer.

Group B: Pregnancy after frozen-thawed embryo transfer.

All cases were followed up till delivery and development of any obstetric complications were noted and managed such as:

- ∑ Abortion

- ∑ Placental abnormalities

- ∑ Polyhydramnios

- ∑ Hypertensive disease

- ∑ IUGR

- ∑ Preterm birth

- ∑ Gestational diabetes

- ∑ Macrosomia

- ∑ Still birth / IUFD

Results

Table 1: Comparison between the two studied groups according toobstetric outcome

Obstetric outcome	Group A# (n = 60)		Group B# (n = 60)		p
	No.	%	No.	%	
<b>Hypertension</b>	9	15.0	6	10.0	0.327
Preeclampsia	3	5.0	2	3.33	
Eclampsia					
<b>Gestational DM</b>	10	16.7	7	11.7	0.432
<b>Placenta</b>					
Normal	46	76.7	54	90.0	MCp= 0.145
Abnormal low lying	10	16.7	5	8.3	
Placenta Previa	4	6.7	1	1.7	
<b>Intrauterine growth retardation</b>	15	25.0	12	20.0	0.512
Macrosomia	5	8.3	4	6.7	FEp=1.000
Polyhydraminos	7	11.7	3	5.0	0.186
Preterm labour	8	13.3	6	10.0	0.570
Stillbirth or IUFD	2	3.3	2	3.3	FEp=1.000

**FE: Fisher Exact test, MC: Monte Carlo test**  
p: p value for comparing between the studied groups  
**Group A:** Pregnancy after transfer of fresh day 5 blactocyst.  
**Group B:** Pregnancy after transfer of thawed embryo in artificially prepared endometrium.  
#: **Abortion cases was excluded**

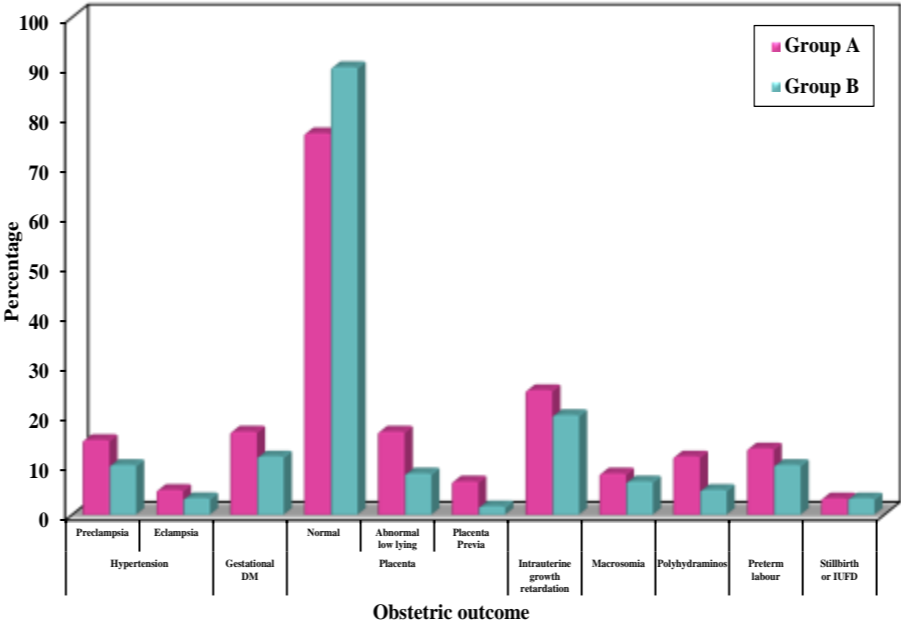
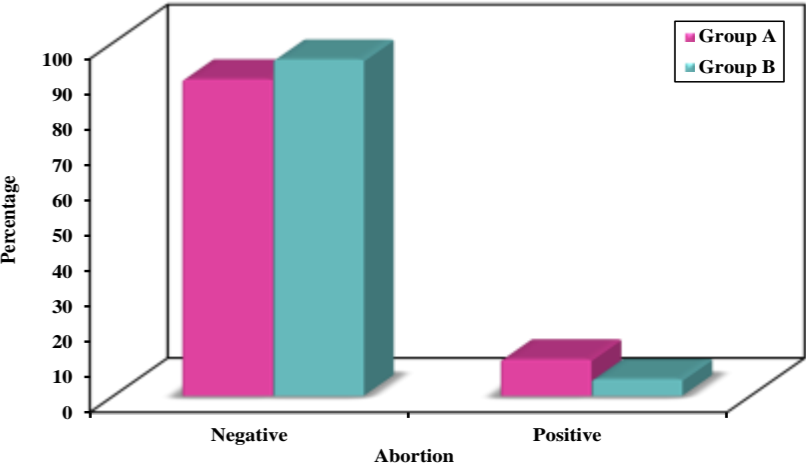


Table 2: Comparison between the two studied groups according toobstetric outcome

Abortion	Group A (n = 67)		Group B (n = 63)		FEp
	No.	%	No.	%	
<b>Negative</b>	60	89.6	60	95.2	0.327
<b>Positive</b>	7	10.4	3	4.8	

**FE: Fisher Exact test**  
p: p value for comparing between the studied groups  
**Group A:** Pregnancy after transfer of fresh day 5 blactocyst.  
**Group B:** Pregnancy after transfer of thawed embryo in artificially prepared endometrium



Conclusion

In this study, we concluded that there were no statistical significant differences regarding the obstetric outcomes between pregnancies after fresh embryo transfer and frozen thawed embryo transfer.