

EFFECT OF POOR QUALITY EMBRYOS TRANSFER WITH GOOD EMBRYOS ON DAY THREE ON INTRACYTOPLASMIC SPERM INJECTION OUTCOME

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INTRODUCTION

With the improvement of ICSI techniques, there has been a big dilemma which can be summarized in the following question ‘does adding poor quality embryo(s) to good quality embryo(s) affect ICSI outcome as regard the clinical pregnancy rate and implantation rate on day three?’

To break the dilemma of whether poor quality embryos have the potential to harm the good quality ones if transferred in the same fresh cycle, we started our study and this was our main aim.

Although there are some studies that proved the poor quality embryo impairs the implantation of good ones, our study proved otherwise.

AIM OF THE WORK

The aim of this study was to evaluate whether poor quality embryo(s) has a negative effect on good quality embryo(s) when transferred together on ICSI outcome on day three in the same cycle or not.

PATIENTS AND METHODS

Patients: 140 patients undergoing fresh day 3 embryo transfers had been included in this study.

Inclusion criteria:

- Patient age 18-35 years.
- BMI 18-30
- AMH \geq 1.2ng/mL

Exclusion criteria:

- Patients >35years
- BMI >30
- AMH <1.2 ng/mL
- Uterine anomalies
- Any endocrinological cause of infertility.
- Sever male factor (azoospermia) .

METHODS

Study design:

Retrospective cohort.

All patients from the period of 1/2018 to 2/2021 who met our inclusion criteria who had ICSI using fresh non-donor oocytes were included in this study. The study was approved by the local ethics committee.

RESULTS

Table : Comparison between the two studied groups according to clinical pregnancy rate and implantation rate.

	Group I “Good quality embryos + poor quality embryo(s)” (n = 70)		Group II “Good quality embryo(s) only” (n = 70)		Test of Sig.	P
	No.	%	No.	%		
Clinical pregnancy rate						
Negative	43	61.4	38	54.3	$\chi^2=$	0.392
Positive	27	38.6	32	45.7	0.732	N.S.
Implantation rate (%)	(n = 27)		(n = 32)			
Min. – Max.	33.30 –100.0		50.0 –100.0		t=	0.152
Mean \pm SD.	71.27 \pm 19.62		79.19 \pm 13.52		338.0	N.S.

SD: Standard deviation
 χ^2 : Chi square test

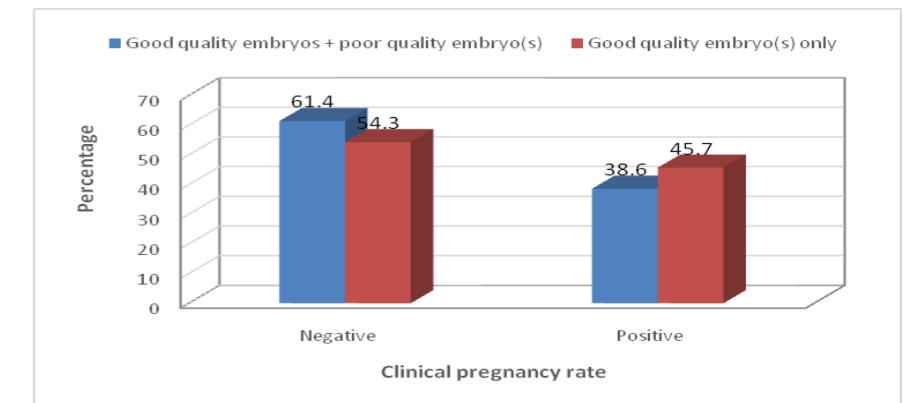


Figure 1: Comparison between the two studied groups according to clinical pregnancy rate

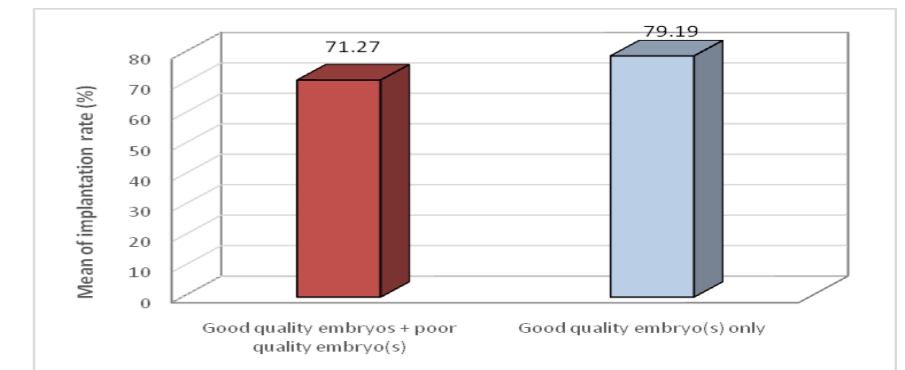


Figure 2: Comparison between the two studied groups according to implantation rate (%)

CONCLUSION

Transferring poor quality embryos together with good quality embryos doesn't affect ICSI outcome on day three.