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INTRODUCTION

Frozen embryo transfer (FET) involves thawing of the embryos and transferring into the uterus of women after a course of hormonal medication support. The day of transfer is largely determined by the quality of endometrium lining and inevitably, for some patients the day of transfer may fall on a weekend. In this study, we attempt to compare the clinical pregnancy rate, implantation rate and miscarriage rate for FET procedure performed on weekday and weekend respectively.

METHODS

A retrospective study on 194 patients who underwent IVF/ICSI (Intra Cytoplasmic Sperm Injection) and proceed to FET procedure later on in our centre from 2017-2020 were conducted. The data were collected and stratified into two groups; day of transfer on weekday (n=157) or day of transfer on weekend (n=37) based on the day of FET. Clinical pregnancy rate, implantation rate and miscarriage rate were then analyzed. The Chi-square statistical analysis was conducted with a significance level at $p < 0.05$. Both cleavage stage embryo transfer (day 3) and blastocyst transfer were included.

RESULTS

Table 1: The parameters compared on weekday and weekend.					
	Weekday	Weekend	Total	p-value ^a	Conclusion
No of embryo transfer (n)	157	37	194		
No of clinical pregnancy (n)	66	22	88		
No of sac seen (n)	74	29	103		
No of embryos transferred (n)	256	57	313		
No of miscarriage per pregnancy (n)	20	4	24		
Clinical pregnancy rate (%)	42.04	59.46		0.0516	Not Significant
Miscarriage rate (%)	30.30	18.18		0.2689	Not Significant
Implantation rate (%)	28.91	50.88		0.0014	Significant

^a p-value when the weekday data is compared to the weekend data accordingly using the Chi-square test

The results showed no significant difference in clinical pregnancy rate (42.0% vs 59.5%, $p=0.0516$) and miscarriage rate (30.3% vs 18.2% $p=0.2689$) between the weekday and weekend embryo transfer. However, there was a significant difference in implantation rate between the two groups (28.9% vs 50.9% $p=0.0014$).

CONCLUSION

Our data showed that implantation rate is significantly higher in the group of patients who had their embryo transfer over the weekend. Although there was no significant difference in clinical pregnancy rate and miscarriage rate, but there was a trend towards better clinical pregnancy rate in the weekend transfer group. We hypothesized that carefully planned embryo transfer timing according to the individual's endometrium quality may have benefited some patients. However, a larger sample size is needed to verify this as well as the actual reason behind it.

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