

Effect of elective Freeze all for patients with normal P4 levels on the day of trigger in Indian scenario.

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RESEARCH FINDINGS:

The implantation rate, clinical pregnancy rate, live birth rate were significantly higher ($p < 0.05$) in the patients that under went elective Frozen embryos transfer when compared to the patients that had embryo transfer in a fresh cycle despite progesterone value being in acceptable range ($P4 < 1.5 \text{ ng/ml}$).

Even the miscarriage rate was higher in the fresh cycles compared with the FET cycles. ($p = 0.016$)

CONCLUSION

Universal or elective freeze all policy improves the IVF outcomes as compared to Fresh embryo transfer probably by over coming the effect of ovarian hyperstimulation on endometrial receptivity.

OBJECTIVE OF INVESTIGATION

To analyse the IVF outcome of Fresh cycles with acceptable progesterone levels ($P4 < 1.5 \text{ ng/ml}$) on the day of trigger with that of an elective freeze all strategy in the Indian scenario.

STUDY DESIGN

A retrospective observational cohort study done at CARE IVF centre, Kolkata & Mathrutva Fertiliy center, Bangalore

MATERIALS AND METHODS

A total of 630 controlled ovarian stimulations (antagonist cycles) with D3 transfer, that occurred during Jan 2015 to Dec 2015 were analysed.

Group A consisted of 154 patients who underwent fresh transfer (when P levels were $< 1.5 \text{ ng/mL}$ on the trigger day)

Group B consisted of 98 patients who underwent freeze all strategy and FET done in the subsequent cycle. (endometrial priming done with estradiol valerate, at 6-10 mg/d, taken orally. ET done on day 4 of progesterone supplementation)

EXCLUSION CRITERIA

$P4$ values $> 1.5 \text{ ng/ml}$ on the day of trigger. The patients who had OHSS (defined as $E2 > 3000 \text{ pg/ml}$ / $\text{COC} > 15$), endometriosis, adenomyosis, recurrent implantation failure, poor responders and women aged over 40 years

PRIMARY END POINT:

Clinical pregnancy rate (CPR)
Live birth rate (LBR)

SECONDARY END POINT:

Implantation rate (IR), Miscarriage rate (MR)
Multiple pregnancy rate (MPR)

RESULTS:

There was no significant difference between Fresh and FET groups in the following parameters.

Age (32.8 vs 33.1 $p = 0.38$), **AMH levels** (4.6 vs 5.2 $p = 0.12$), total dose of gonadotrophins for stimulation ($p = 0.53$), **E2 value on the day of trigger** (1846 vs 1660 $p = 0.29$) **number of high grade embryos** (6-8 equal cells, $< 40\%$ fragmentation) (7.38 vs 6.92 $p =$ and **total number of embryos transferred** (2.89 vs 2.64 $p = 0.09$)



DISCUSSION

Implantation of the embryo is the final and most important step in an ART cycle. It is well established the supra physiological hormonal milieu in an ART cycle effects the implantation potential. Currently serum progesterone values are used as a surrogate for assessing the endometrial receptivity. With the advent of vitrification, freezing has become very effective and the post thaw survival has increased tremendously. The results of our current study emphasize that serum progesterone value is a poor predictor for predicting implantation and that the unfavorable effects of elevated hormonal profile can be negated by transferring the embryos in a frozen cycle.