Comparison of pregnancy rate following oocyte donation in recipients with and without ovarian function in IVF cycles

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Abstract

Introduction: Oocyte donation is a well established method for the treatment of infertility in women. The high success rate of this procedure has led to its wide application in women with ovarian failure or dysfunction at various ages with different etiologies. We decided to study the success rate of IVF cycles following oocyte donation in patients with and without ovarian function.

Materials and Methods: In this prospective clinical study, pregnancy rate after using donated oocyte was studied in the two groups between 1999 and 2001 at Royan institute. One group (n=25) suffered from premature ovarian failure (POF) while the other group (n=23) used donated oocytes due to other reasons than POF (Poor ovarian response). While endometrial preparation was performed by intramuscular administration of Estradiol Valerate and progesterone in both groups, the poor responder group received additional injections of GnRH agonist during endometrial preparation. SPSS 11.5 software program was used for data entry and the results were analyzed by t-test, Chi –Square and Mann Whitney tests. P-value <0.05 was considered as the significance level.

Results: A total of 48 women were included in this study. Twenty five patients (52.1%) had POF and 23 patients were poor responders. There were no statistically significant differences between the two groups in endometrial thickness on transfer day and the number of transferred embryos (P>0.05). Similarly, no significant difference was observed when the pregnancy rate in the POF group (29.2%) was compared with the poor responder group (40.9%). Pregnancy outcome and complications such as multiple pregnancy, preterm labor, IUGR and preeclampcia were not statistically different between the two groups.

Conclusion: The pregnancy rate with donated oocyte in patients with and without ovarian function will be similar, if patients receive good endometrial preparation .It seems that quality of donated oocyte is important factor and selection of donors with the best quality of oocyte is recommended in oocyte donation programs.

Key Words: Oocyte donation, Premature Ovarian Failure (POF), Poor responder, Pregnancy rate, and In Vitro Fertilization (IVF).

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