Pregnancy predictors in the fresh cycle using dual trigger protocol

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Dual trigger protocol using a combination of GnRH agonist and hCG for final oocyte maturation has been shown to minimize ovarian hyperstimulation syndrome (OHSS) risk without compromising fresh embryo transfer outcomes. Therefore, we sought to determine if any cycle characteristics were associated with predictive of pregnancy outcomes in fresh cycles that utilized this protocol for in-vitro fertilization. In this retrospective cohort study, a total of 291 patients who underwent the dual trigger protocol and had a fresh embryo transfer 5 days after oocyte retrieval were included from January 2013 to December 2017. A clinical pregnancy and live birth rate was 67% and 60.1%, respectively. The cohort achieving clinical pregnancy had significantly lower age and a higher number of embryos cryopreserved. After stratifying for number of oocytes retrieved, 74% patients had <30 oocytes and 26% had ≤ 30 oocytes, there was no difference in clinical pregnancy rates (66.8% vs 69.2%) nor live birth rates (60.0% vs 60.5%). Logistic regression analysis identified number of embryos cryopreserved as the only parameter to predict clinical pregnancy, with an odds ratio of 1.079. There were no cases of OHSS in patients that underwent a fresh embryo transfer. This data supports the use of dual trigger to both minimize ovarian hyperstimulation risk as well as obtain excellent pregnancy rates in the fresh cycle.

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