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Down Regulation with Luteal GnRH Agonist Therapy in Euploid Embryo Transfers Does Not Impact Pregnancy Rates

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SI/CTR Abstract

DOWN REGULATION WITH LUTEAL GnRH AGONIST THERAPY IN EUPLOID EMBRYO TRANSFERS DOES NOT IMPACT PREGNANCY RATES

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Introduction: Gonadotropin-releasing hormone (GnRH) agonists have been used during assisted reproductive technology (ART) treatment for pituitary suppression and stimulation. Currently, clinical opinion is divided about whether GnRH agonist therapy improves pregnancy rates when used for luteal down-regulation in a frozen euploid embryo transfer (FET). This study evaluated the clinical utility of GnRH agonist down-regulation in single, euploid FET cycles.

Methods: A retrospective analysis was performed, using data from patients who underwent a single, euploid FET cycle from 2012 to 2019. Patients were segregated into two cohorts: Group A: single, euploid FET with down-regulation using GnRH agonist; Group B: single, euploid FET without down-regulation using GnRH agonist. Primary outcomes include pregnancy rates among cohorts.

Results: Group A demonstrated a pregnancy rate of 72.92% in 96 cycles. Group B demonstrated a pregnancy rate of 73.27% in 5,668 cycles. There was no difference in pregnancy rates between groups, $\chi^2(2, N = 5764) = .0061, p = .94$. A subgroup of patients ($n=5$) with endometriosis in Group A achieved an 80% (4/5) pregnancy rate.

Discussion: Single, euploid FET cycle pregnancy rates were not affected by the use of down-regulation with a GnRH agonist. Increased pregnancy rates found with prolonged GnRH agonist use in other studies weren't seen with short term use for FET cycles. Future research should focus on molecular markers and gene transcription signatures to attempt to define whether there is an ideal population of patients who would benefit from GnRH agonist down-regulation prior to FET.