CLINICAL PREGNANCY RESULTS UTILIZING NON-INVASIVE ENDOMETRIAL RECEPTIVITY TESTING FOR PERSONALIZED EMBRYO TRANSFER

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Background and Aims: This study aimed to evaluate the clinical results of patients who underwent non-invasive endometrial receptivity testing and subsequently followed the timing recommendation for personalized embryo transfer.

Methods: Blood samples were collected from patients undergoing hormone replacement therapy (HRT) cycles on day P+5 (120 hours after progesterone administration). The blood samples were then analyzed by ORA, a non-invasive endometrial receptivity test that utilizes microRNA (miRNA) expression profiling to identify the optimal time for embryo transfer.

Results: Following ORA testing, 18 patients proceeded to undergo personalized embryo transfer. Among them, 10 patients resulted in a confirmed clinical pregnancy and 1 achieved a biochemical pregnancy. Out of these 11 patients, 2 had a history of implantation failure and 3 underwent PGT-A testing alongside ORA. This result suggests a pregnancy success rate of 61% (11/18) following non-invasive endometrial receptivity testing. Of the 11 successful pregnancy patients, 2 of them were identified with a displaced window of implantation, suggesting an 18.1% (2/11) displacement rate. For the 7 patients that did not achieve a successful pregnancy, 85.7% (6/7) did not undergo PGT-A testing to confirm embryo quality prior to the personalized embryo transfer and 1 patient had a history of implantation failure.

Conclusion: Due to miRNAs stability in blood, a novel method for testing endometrial receptivity has been introduced in clinical settings. Following the embryo transfer timing recommendation of this novel test, we can see high potential for this test from the successful pregnancy rates of this cohort.