

P-392 Clinical outcomes of endometrium receptivity analysis(ERA) testing in patients with repeated IVF failures

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Study question: Is ERA testing different between RIF patients with control group?

Summary answer: In RIF patients, there were more chances of non-receptive endometrium. ERA testing may be helpful for the patients with repeated IVF failure. What is known already: The endometrium receptivity analysis testing might have the ability to detect the implantation window. In repeat implantation failure patients, detecting of precisely implantation window may have some benefits.

Study design, size, duration: This was a single-center retrospective observational study. Two hundred and forty-nine patients who underwent ERA testing following frozen-thawed embryo transfer in our center were including in this study between January 2019 and May 2020.

Participants/materials, setting, methods: 181 patients having unexplained repeated IVF failure (RIF group, at least tow implantation failure) and 68 patients having no experience with embryo transfer (Control group) who underwent ERA testing were including in this study. Both of Patients having a receptive (R) ERA and having a non-receptive (NR) ERA underwent a personalized embryo transfer (pET) on ERA. ERA results and clinical outcomes compared between RIF group and control group were analyzed by Chi-square test.

Main results and the role of chance: The proportion of R/NR results were 33:35 for the RIF group and 118:63 for the Control group, demonstrating the displacement of the window of implantation in patients with RIF. Our results revealed an endometrial factor in 51% RIF patients, which was significantly greater than the Control group 34.8% ($P = 0.02$). Among the patients with NR ERA result, there are not significantly difference in clinical pregnancy rate in the RIF group compared with control group (57.1% vs. 61.9%). The clinical pregnancy rate of the patients with receptive ERA result also is comparable in both group (70.3% vs. 66.7%).

Limitations, reasons for caution: This is a retrospective, single center study with limited case number. There were may some bias with ERA testing errors.

Wider implications of the findings: In RIF patients, there were more chances of non-receptive endometrium. ERA testing may be helpful for the patients with repeated IVF failure. Larger randomized studies are required to validate these results.

Trial registration number: 18MMHISO70e