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TITLE

CAN WE IMPROVE OUTCOMES FOCUSING ON THE ENDOMETRIUM?

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ABSTRACT

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Personalized medicine is a well-accepted concept in reproductive medicine except for the endometrial factor that is still neglected. Our group has developed the endometrial receptivity array (ERA), a customized array of 238 genes coupled to a computational predictor capable of diagnosing a functionally receptive endometrium (1).

The initial clinical results obtained showed the diagnostic and therapeutic efficiency of the ERA test in patients with implantation failure (IF), through personalization of the day of embryo transfer (pET). Using ERA in the IF population, we described a displacement of the window of implantation in 25% of patients. When the day of embryo replacement was corrected, implantation was 38.5% (2).

We also designed a prospective randomized study to investigate differences in implantation (IR), pregnancy (PR), ongoing pregnancy (OP) rates and delivery among women undergoing transfer at the blastocyst stage in their first IVF/ICSI cycle randomized to fresh cycles (ET), deferred embryo transfer (DET), or pET after ERA (3). Interim analysis showed significant ($p < 0.05$) differences in pregnancy rates per transfer among groups (61.7% ET; 60.8% DET; and 85.7% pET). Ongoing PR were not significantly different (43.3%, 44.6% and 55.1%, respectively). These data support the concept of the relevance of the endometrium in ART.

1. Díaz-Gimeno P, et al . Fertil Steril 2011;95:50-60.
2. Ruiz M, et al. Fertil Steril 2013;100:818–24.
3. Simon C, et al. ASRM 2016, Salt Lake City, 15-19 October 2016.

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