Assessment of the Role of Endometrial Receptivity Analysis in Enhancing Assisted Reproductive Technology Outcomes for Advanced-Age Patients

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1. Background

Challenge

Fertility outcomes for advanced-age patients are often suboptimal due to endometrial aging and recurrent implantation failure (RIF).

Objective

Improve ART outcomes with personalized embryo transfer (pET) according to endometrial receptivity analysis (ERA) in advanced-age RIF patients, by utilizing donor oocytes and preimplantation genetic testing for aneuploidy (PGT-A) for embryo testing.

2. Study Overview

A randomised, controlled observational follow-up study between 2020–2023

2020

Participants **320** patients with RIF

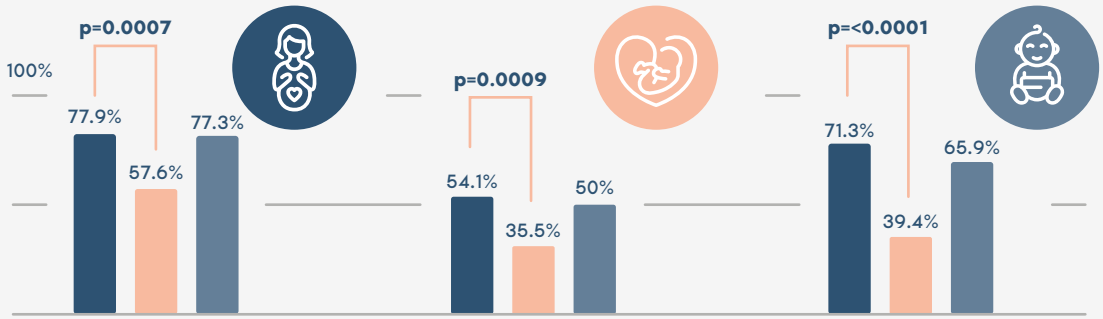
Groups

Study Group	Control Group 1	Control Group 2
35-45 years	35-45 years	<35 years
PGT-A + ERA	PGT-A only	PGT-A + ERA

2023

3. Key Results

Study Group
Control Group 1
Control Group 2



Pregnancy Rate

Key Finding:
Significant improvement in pregnancy rate for PGT-A + ERA vs PGT-A alone

Implantation Rate

Key Finding:
Significant improvement in implantation rate for PGT-A + ERA vs PGT-A alone

Live Birth Rate

Key Finding:
Significant improvement in live birth rate for PGT-A + ERA vs PGT-A alone

4. Conclusions

- **pET guided by ERA significantly improves pregnancy, implantation, and live birth rates** in advanced-age patients with challenging reproductive histories.
- **No significant difference** between advanced-age patients (study group) and younger patients (control group 2) when using pET guided by ERA.

ERA is the only endometrial receptivity test backed by a RCT study.