

NEW ALTERNATIVES FOR ADVANCED MATERNAL AGE PATIENTS

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In view of evolving population dynamics, where women are delaying childbearing to late thirties or early forties worldwide, ART is being used by older patients. This quickly expanding patient need is not restricted to any geographic location but it is a global trend. Thus, there is an urgent need to improve ART outcomes in this rapidly growing group of patients.

Understanding ovarian physiology and ovarian aging is crucial to establish strategies to optimize IVF outcome in AMA patients. Considering that we cannot recruit follicles that do not exist, there are different ways to try to improve their reproductive outcome in this patient population with a short time-frame left to achieve a pregnancy:

- a) IVF better than IUI: recent evidence confirms that IVF is more effective than non-IVF in terms of live birth rate
- b) Androgen priming: with increasing age there is marked decline in testosterone, androstenedione and DHEAS, with no changes in SHBG. Thus, it seems plausible that androgen priming in these patients could be beneficial, by increasing FSH receptor expression. Published evidence supports this hypothesis, although results are controversial.
- c) Preimplantation genetic screening: after all the "spilled ink" discussing pros and cons of PGS in AMA, adequate patient selection combined with cutting edge laboratories and highly experienced embryologist does improve reproductive outcome.
- d) Oocyte/embryo banking: vitrification of oocytes or embryos may increase the chances of reaching embryo transfer; however if this has an impact on live birth rate is still a matter of debate. Our recent data confirms that PGS with at least six MII oocytes improves 2-fold reproductive success in women over 40 years of age.