

MATURITY RATES (MR) WITH GNRH-AGONIST (GNRH-A) TRIGGER IN NORMAL, LOW, AND VERY LOW RESPONDERS PURSUING ELECTIVE OOCYTE CRYOPRESERVATION (EOC)

B. L. Maslow, L. B. Ramirez, A. Adler, J. U. Klein;

Center for Fertility Research and Education - Extend Fertility, New York, NY

INTRODUCTION

- GnRH-a is a well-established method for oocyte maturation in high-responders at risk for ovarian hyperstimulation syndrome (OHSS)
- Normal responders are a lower risk for OHSS
- In EOC, even a small risk may be unacceptable

OBJECTIVES

- The primary objective of this study is to evaluate MR in normal, low, and very-low responders undergoing EOC using GnRH-a trigger

METHODS

- Retrospective cohort study
- All EOC cycles performed from 4/2016-4/2018 at Extend Fertility Medical Practice, a large single-center oocyte cryopreservation program
- Demographic, clinical, and embryologic data collected and categorized from the EMR
- MR = mature (MII) / retrieved oocytes
- Peak E2 levels on day of trigger were used as a surrogate for ovarian response
- Associations made with X², student's t-test, Mann-Whitney U, and Kruskal Wallce

CONCLUSIONS

- GnRH-a trigger is a suitable option for EOC
- While oocytes retrieved and MII oocytes significantly decreased with lower peak E2 levels, **the maturity rate did not significantly decline**
- Very-low responders (E<1000) had lower MR overall, regardless of trigger type
- GnRH-a can be used reliably in EOC cycles at all levels of response**

RESULTS

	Total (N=1125)	GnRH-a (N=491)	hCG (N=506)	Dual Trigger (N=24)	P
Oocytes Retrieved (Mean±SD)	15.9±10.9	19.5±12.8	13.0±8.0	14.9±7.7	<0.01
MI I oocytes (Mean±SD)	10.8±8.4	13.7±9.8	8.5±9.2	10.7±6.2	<0.01
MR [Median (IQR)]	0.70(0.26)	0.74(0.25)	0.67(0.25)	0.78(0.21)	<0.01
Peak E2 Level (ng/mL)	2352.9±1485.5	2974.0±1810.0	1872.1±912.0	1728.7±. 1001.9	<0.01

Table 1: Cohort by trigger type

	Oocytes Retrieved (Mean±SD)	MI I Oocytes (Mean±SD)
<2000 (N=160)	9.56±6.86	6.69±4.90
2001-3000 (N=116)	20.21±10.09	13.88±8.43
3001-4000 (N=91)	23.63±10.68	16.13±8.80
>4000 (N=111)	30.08±12.81	21.61±10.30
P-value	<0.01	<0.01

Table 2: Oocytes retrieved/MI I oocytes for GnRH-a triggers by E2 level (pg/mL) on the day of trigger

Maturity Rate with GnRH-a Trigger by Peak E2 Levels

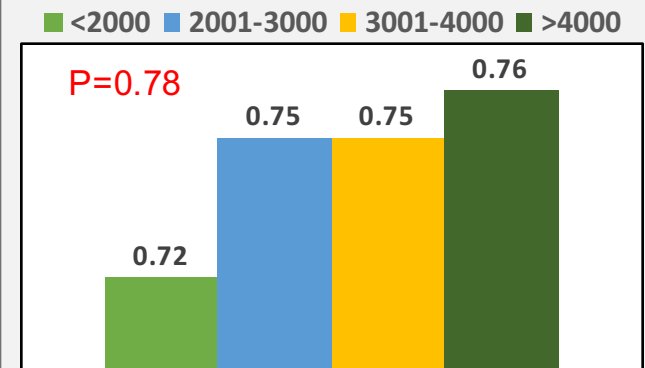


Figure 1: MR for GnRH-a triggers by peak E2 levels (pg/mL) on the day of trigger

REFERENCES

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- Meyer L, Fertility & Sterility Sep 2015
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