

EFFECT OF THE GnRH ANALOGUE FOR PITUITARY SUPPRESSION ON OOCYTE MORPHOLOGY IN REPEATED OVARIAN STIMULATION CYCLES

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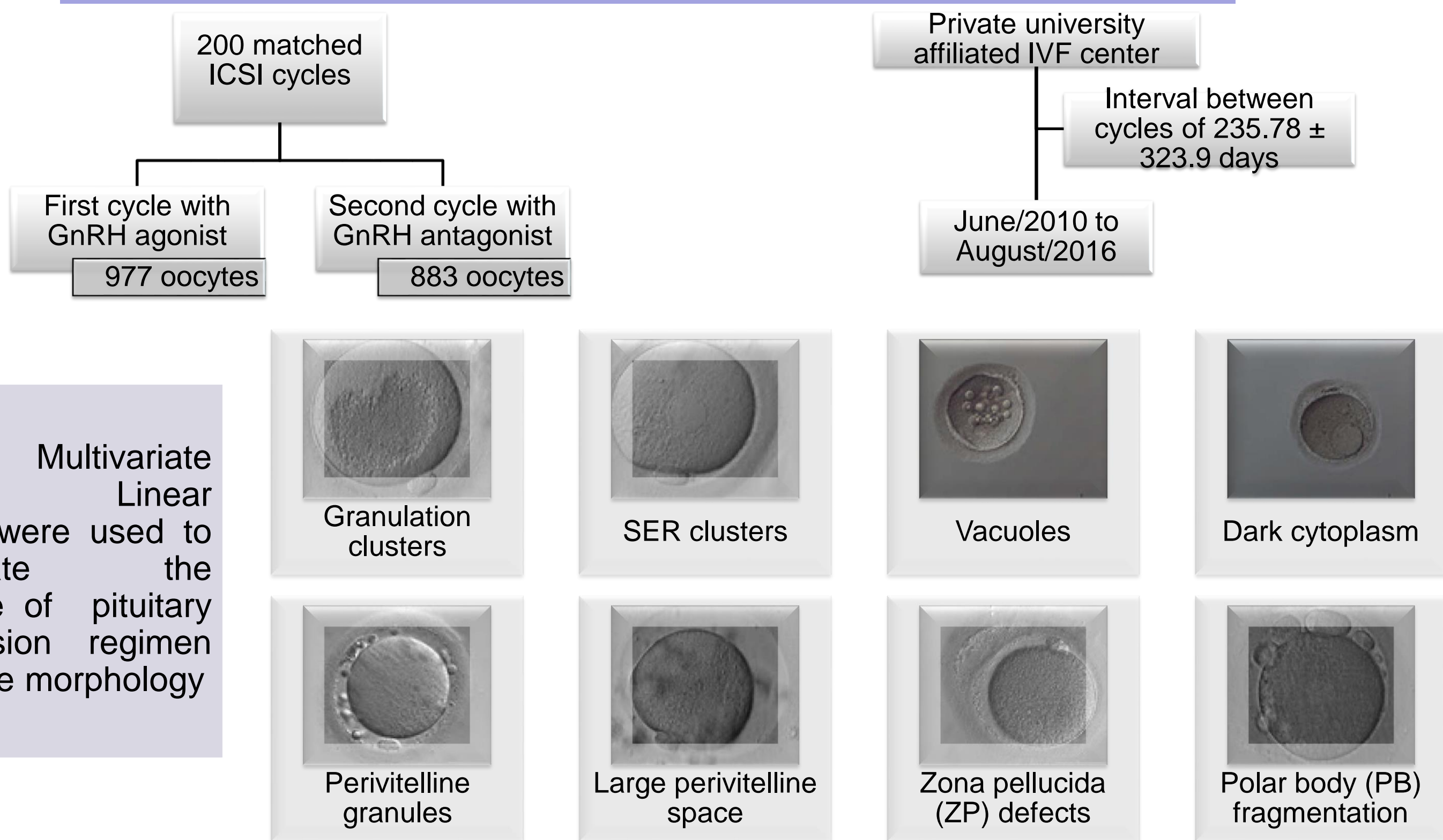
INTRODUCTION

Oocyte quality is an important factor that influences development and implantation potential of derived embryos. Retrieved oocytes tend to exhibit numerous dysmorphisms, since controlled ovarian stimulation (COS) promotes the growth of follicles that would regress under natural conditions, thus allowing the recovery of oocytes with compromised quality. Pituitary suppression, which is achieved by the administration of gonadotropin-releasing hormone (GnRH) agonists or antagonists, may impact not only hypothalamus-pituitary regulation, but also oocyte development and quality.

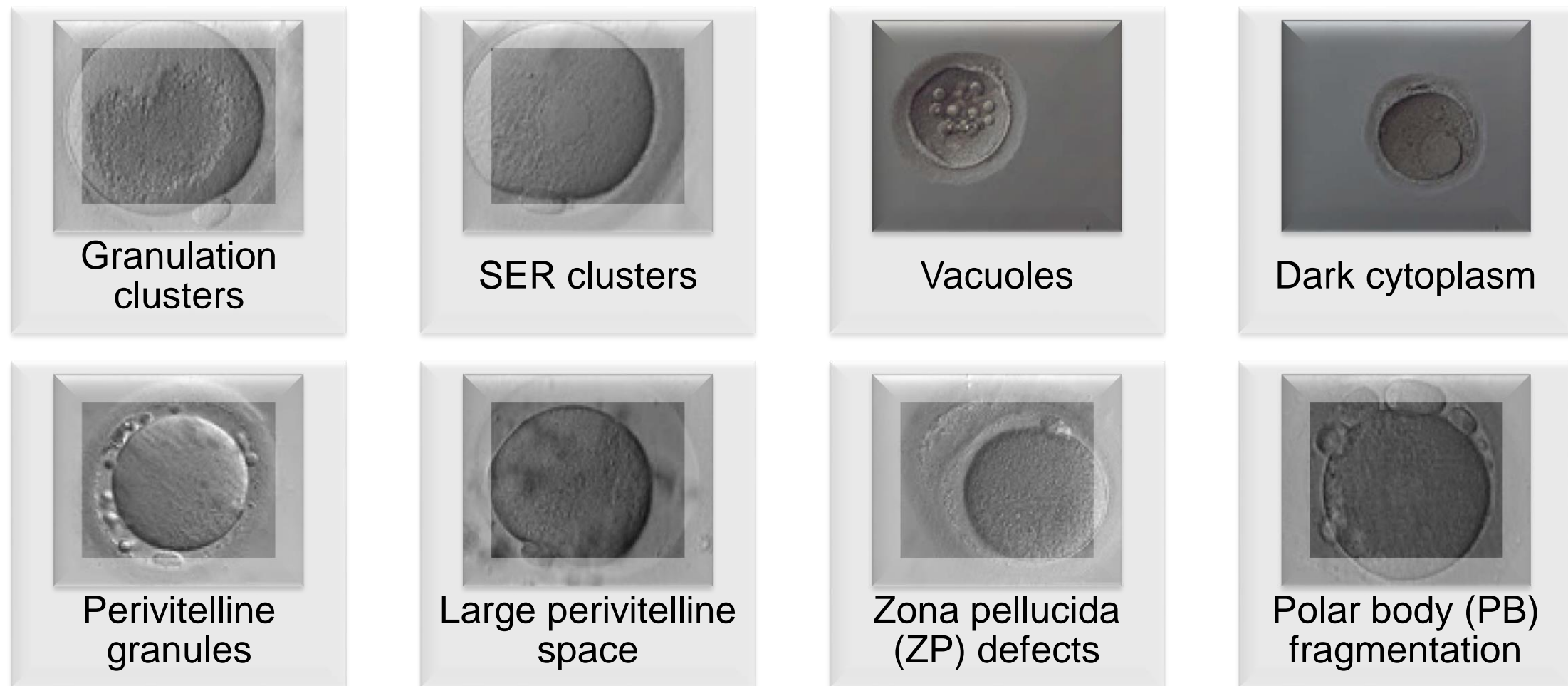
OBJECTIVE

To study the effect of the pituitary suppression regimen - GnRH agonist or antagonist - on oocyte morphology in consecutive intracytoplasmic sperm injection (ICSI) cycles.

MATERIALS AND METHODS



Adjusted Multivariate General Linear Models were used to investigate the influence of pituitary suppression regimen on oocyte morphology



RESULTS

Table 1- Descriptive statistics of oocyte morphological defects.

	GnRH Agonist	GnRH Antagonist	p
Granulation clusters (%)	6.65 ± 2.67	7.91 ± 2.41	0.725
sER clusters (%)	8.04 ± 1.50	3.77 ± 1.50	0.046
Vacuoles (%)	6.98 ± 1.88	6.78 ± 1.81	0.937
Dark cytoplasm (%)	4.37 ± 1.41	0.67 ± 1.27	0.043
Perivitelline granules (%)	47.14 ± 3.76	50.65 ± 3.62	0.506
Large perivitelline space (%)	25.50 ± 3.30	25.59 ± 3.18	0.985
ZP defects (%)	12.44 ± 2.52	4.69 ± 2.77	0.041
PB fragmentation (%)	33.08 ± 3.10	32.20 ± 2.99	0.876

CONCLUSIONS

Our findings suggest that the GnRH antagonist inhibitory effect on the ovaries in consecutive ICSI cycles results in optimized ovarian function, represented by improved oocyte morphology, which may lead to a more favorable treatment outcome.