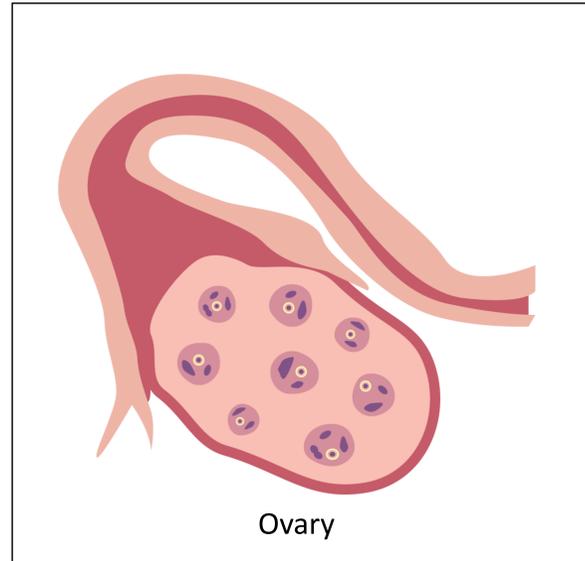


INTRODUCTION

Ovarian aging is a challenge in Assisted Reproductive Technology (ART) because it causes gradual decrease in ovarian reserve. Assessment of ovarian reserve using anti-Mullerian hormone (AMH) could predict ovarian response to stimulation. Our study evaluates the follicle-stimulating hormone (FSH) and Human Menopausal Gonadotrophin (HMG) dosages on the outcomes of ART in low, normal and high responders.



METHODS

70 women were divided into three groups: (A) low responders (AMH \leq 5.4pmol/mL, n=17), (B) normal responders (5.5pmol/mL-24.9pmol/mL, n=25), and (C) high responders (\geq 25pmol/mL, n=28). FSH and HMG dosages in controlled ovarian stimulation were determined. Retrieval, maturation, fertilization and utilization rates were measured. Data presented as Mean \pm SD. Comparisons were made using Student's T-test.

RESULTS

The FSH and HMG dosages in low responders were 257 ± 134 IU/day for 10 ± 4 days and 145 ± 154 IU/day for 5 ± 5 days; normal responders were 261 ± 74 IU/day for 10 ± 3 days and 79 ± 94 IU/day for 5 ± 5 days; and high responders were 173 ± 75 IU/day for 10 ± 4 days and 74 ± 115 IU/day for 4 ± 5 days, respectively.

Low responders had 4.6 ± 2.9 oocytes retrieved, normal responders had 14.4 ± 9.4 and high responders had 18.7 ± 8.4 .

The rates of retrieval, maturation, fertilization and utilization in low responders were 73.4 ± 30.4 , 89.7 ± 12.5 , 68.9 ± 30.3 and 71.2 ± 26.4 ; in normal responders were 81.9 ± 20.7 , 79.9 ± 13.7 , 68.0 ± 21.8 and 47.6 ± 24.7 ; in high responders were 88.4 ± 16.8 , 79.1 ± 18.6 , 61.2 ± 20.4 and 60.3 ± 30.2 , respectively (Figure 1).

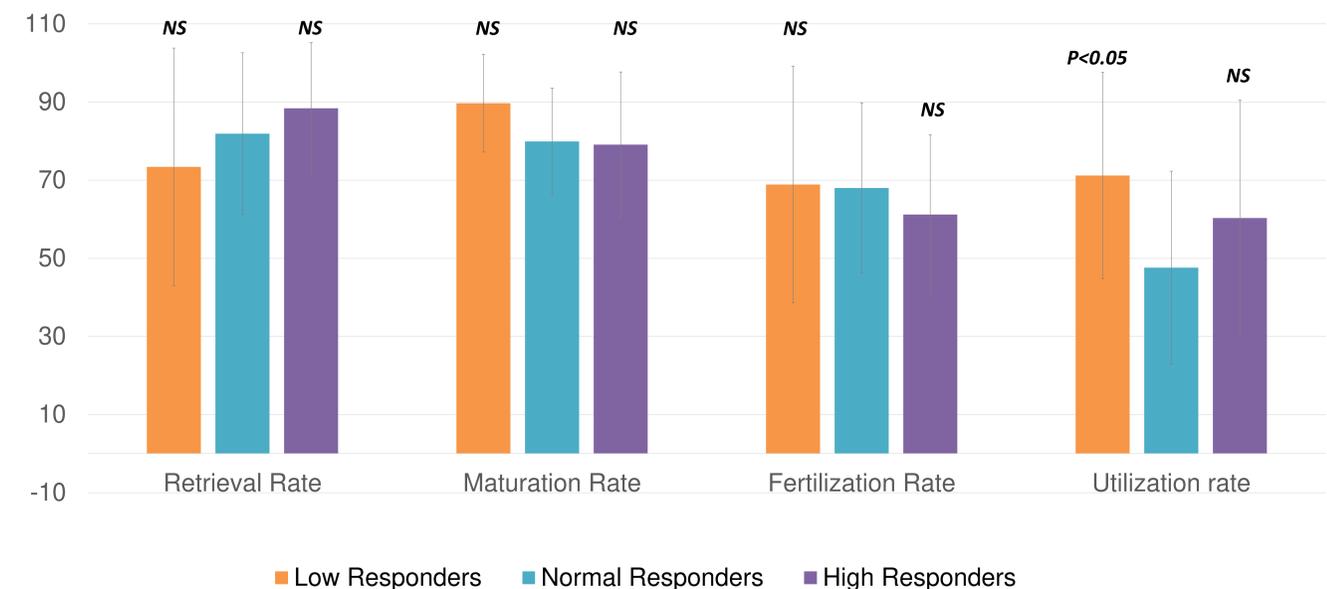


Figure 1. Rates of oocyte retrieval, oocyte maturation, fertilization and embryo utilization in low, normal and high responders categorized according to NICE's clinical guidelines for serum AMH levels. NS = Not significant when compared to normal responders ($P > 0.05$)

CONCLUSION

Although lacking significant differences, the low responders' retrieval, maturation and fertilization rates are comparable to the normal and high responders ($p > 0.05$). The utilization rate of low responders is higher than normal responders ($p = 0.0035$) suggesting that with correct stimulation, good quality of oocytes and embryos can be retrieved even though the number is small.

REFERENCES

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