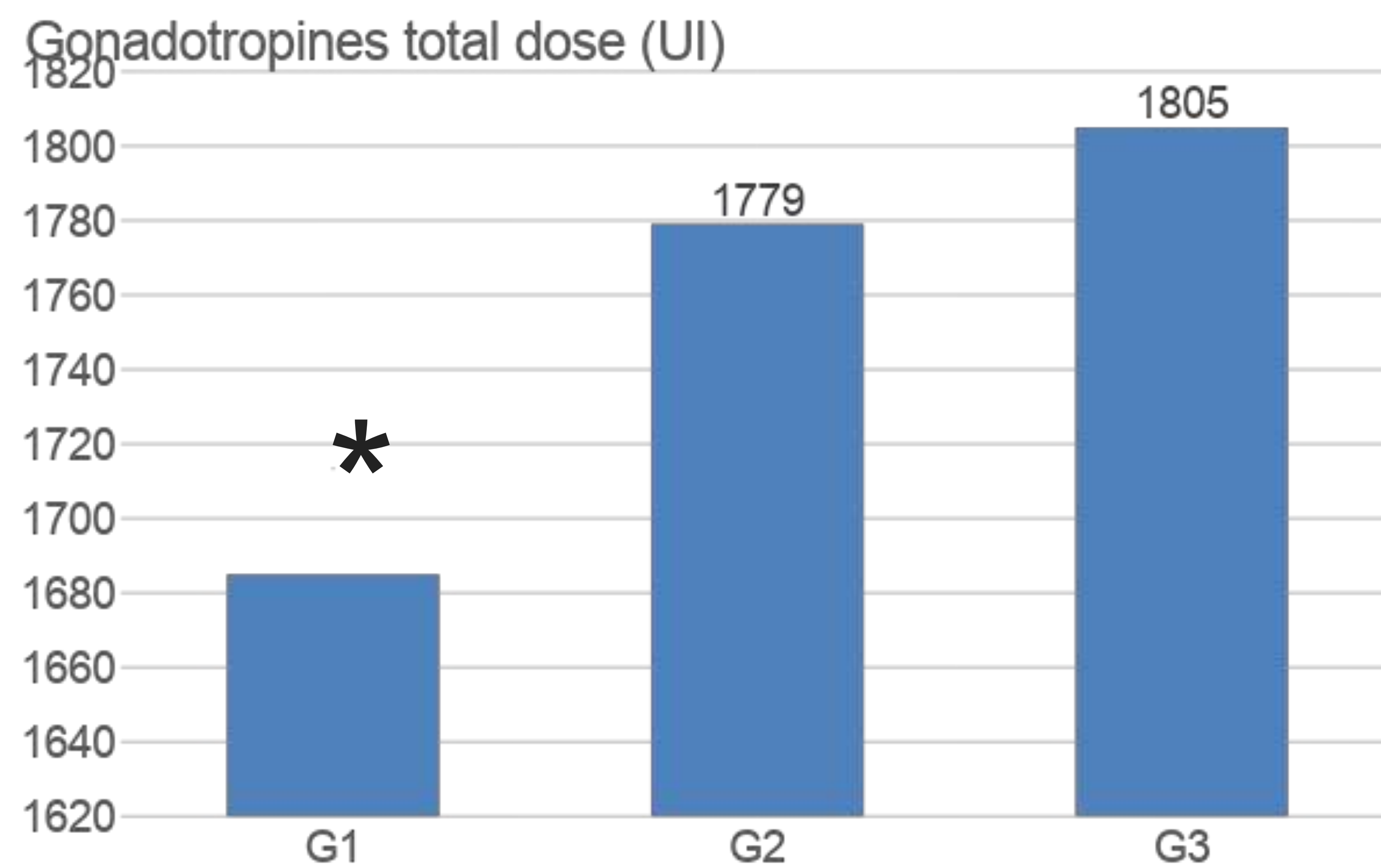


INTRODUCTION

Overweight and obesity are well-known risk factors for female fertility, but their impacts on Assisted Reproduction Techniques (ART) are still controversial. This study aimed to evaluate the impact of Body Mass Index (BMI) on ovarian stimulation for ART.

RESULTS

Figure 1. Gonadotropins' total dose compared between groups



G1. Group 1 BMI < 24.9 kg/m², G2. Group 2 BMI 25-29.9 kg/m², G3. Group 3 BMI ≥ 30 kg/m².

IU. International units.

Values presented as mean obtained by ANOVA and Tukey test post hoc.

*p = 0.001

Table 1. Ovarian stimulation results compared between groups

Variables	G1 n=1940	G2 n=530	G3 n=183	p
Cancelled IVF cycles (%)	6.9	7.8	10.4 *	0.002 ¹ 0.001 ²
Variables	G1 n=1332	G2 n=373	G3 n=130	p
Total mature oocytes	6 [6.4-7]	6 [5.6-6.6]	4 [4.6-6.7] *	0.011 ¹
Oocyte maturity rate (%)	80 [76-78.6]	80 [74.3-79.7]	77.7 [71.4-81]	0.877 ¹

G1. Group 1 BMI < 24.9 kg/m², G2. Group 2 BMI 25-29.9 kg/m², G3. Group 3 BMI ≥ 30 kg/m².

Values presented as n (%). *different group considering p < 0.05

¹ Qui-square test and post hoc curve

² Linear by linear association applied

CONCLUSION

- Overweight and obesity have a negative impact on the ovarian response to stimulation.
- The higher proportion of cancelled IVF cycles, found higher in overweight and obesity groups, may have been related to the same poor ovarian response that required higher gonadotropin doses.
- This study shows that even the best overweight and obese ovarian responders had a worse response when compared to eutrophic patients.

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