

CONTROLLED OVARIAN STIMULATION INITIATED AT DIFFERENT PHASES OF THE MENSTRUAL CYCLE FOR FERTILITY PRESERVATION IN ONCOLOGICAL PATIENTS

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Abstract Body

Purpose: Fertility preservation (FP) in oncological patients is still a challenge due to the short time available before starting an oncological treatment. We aimed to compare conventional start in early follicular phase (EFP) with late follicular phase (LFP) and luteal phase (LP) in controlled ovarian stimulation (COS) for FP to assess differences in clinical outcomes.

Methods: We performed a retrospective study of the first cycles of COS for FP in oncological patients between 2012 and 2020 in a tertiary hospital. Two-hundred forty-eight cycles were classified into 3 groups: 176 cycles in EFP, 8 cycles in LFP and 52 cycles in LP.

Results: Comparing LFP to EFP there were no differences in number of oocytes ($10,4 \pm 5,2$ vs $13,6 \pm 8,0$; $p=0,253$) or number of metaphase II obtained ($7,4 \pm 5,2$ vs $10,2 \pm 6,3$; $p=0,229$). Total number of days needed was higher in LFP ($14,4 \pm 3,0$ vs $10,1 \pm 2,3$; $p=0,000$) but without significant differences in number of days of usage of gonadotropins ($11,0 \pm 2,9$ vs $10,1 \pm 2,3$; $p=0,308$). No differences were found between LP and EFP in number of oocytes ($15,6 \pm 9,0$ vs $13,6 \pm 8,0$ $p=0,151$) or MII ($11,8 \pm 6,3$ vs $10,2 \pm 6,3$ $p=0,084$). Number of days of gonadotropins and total dosing were significantly higher in LP ($10,9 \pm 1,7$ vs $10,1 \pm 2,3$; $p=0,001$ and $2899,0 \pm 750,4$ vs $2621,9 \pm 895,3$; $p=0,013$). FORT (EFP $69,2 \pm 43,9$ vs LFP $74,0 \pm 59,1$ $p=0,855$ and vs LP $66,7 \pm 37,5$ $p=0,864$) and FOI (EFP $101,6 \pm 76,9$ vs LFP $88,2 \pm 60,9$; $p=0,483$ and vs LP $98,5 \pm 50,7$; $p=0,720$) were similar in all groups.

Conclusion: COS with random-start in fertility preservation has similar outcomes to EFP start. Therefore, we can initiate COS at any phase of the menstrual cycle with optimal results. However, LP may need more days of stimulation.