

PROSPECTIVE ASSESSMENT OF THE FOLLICULAR GROWTH AND THE OOCYTE COHORT AFTER CONTROLLED OVARIAN HYPERSTIMULATION (COH) FOR FERTILITY PRESERVATION IN 90 YOUNG CANCER PATIENTS VERSUS 180 MATCHED CONTROLS

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Abstract Body

INTRODUCTION : Recent retrospective studies highlighted a lower number of metaphase II oocytes eligible for vitrification after COH in cancer patients suggesting that the disease may impair the dynamics and the quality of follicular growth.

OBJECTIVE : The current study is a prospective comparative study analysing the pattern of follicular growth and oocyte cohort after COH in cancer patients.

MATERIALS AND METHODS : 90 cancer patients, recruited before starting chemotherapy, were compared to 180 time and age-matched healthy ICSI controls underwent their first attempt and all patients received an antagonist protocol. Primary outcome of the study was the total number of metaphase II oocytes and the metaphase II /total oocytes rate.

RESULTS : The distribution of the different types of cancer was as follows: 54% of breast cancer, 28% of haematological malignancies and 18% of various solid tumors. Patients did not differ from controls regarding age and BMI. Basal AMH levels and AFC were significantly lower in cancer patients. The r-FSH total dose was significantly higher in the cancer group. The duration of stimulation, the mean number of mature follicles on triggering day and the total oocyte number after retrieval were not different between the two groups. The mean number of Metaphase II oocytes and Metaphase II/ total oocytes ratio were significantly lower in the cancer group (6.3 ± 4.7 vs 8.8 ± 4.2 ; $p \leq 0.0001$ and) were significantly lower in the cancer group (56% vs 78% $p \leq 0.0001$) with a higher rate of atretic oocytes.

CONCLUSION : Our results confirm those of the largest previous retrospective reports, with a lower number of metaphase II oocytes eligible for vitrification and lower maturation rate in the cancer group.