A COMPARATIVE STUDY ON ICSI OUTCOMES USING CRYOPRESERVED SPERM FROM MALE ONCOFERTILITY PRESERVATION CASES AND FROM NON-CANCEROUS CASES OF INFERTILITY

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Introduction: With the increased access to ART, many young men with a diagnosis of cancer are encouraged to cryopreserve sperm. The objective of this study was to review our experience of ICSI with cryopreserved sperm from men undergoing oncofertility preservation and analyze their reproductive outcomes.

Materials and Methods: From 2008 to 2012, all cases of men in a university-based reproductive center with newly diagnosed cancer who accepted to cryopreserve sperm prior to cytotoxic anti-cancer therapies were included in this study. All subsequently ICSI cases were evaluated retrospectively.

Results: A total of 263 cases of oncofertility preservation were managed. The median age of the patients was 30.3±9.1 years and the diagnoses were 43.4% testis cancer, 36.9% lymphoma, 13.0% leukemia, 6.7% other type of cancer. Nineteen ICSI cycles were performed (female age=34.1±4.2, AFC=14.2±9.1 and FSH=8.1±2.3) and the median sperm count was 43.2M/ml, 36% forward motility. The pregnancy and live birth rates were 78.9% and 52.6% respectively, which were significantly higher than ICSI cases from non-cancerous patients (48.5% and 30.7%, n=101 p<0.05) in the same period. Interestingly, a significantly higher percentage of live-birth was female (83.3% vs 64.5% p<0.01).

Conclusions: The usage rate of cryopreserved sperm from oncofertility preservation cases was low. This situation can be due to a short study period when these young cancer survivors are not ready to form family or good recovery of fresh semen parameters. Despite the low usage rate, the success of live births is high. Our findings support that male oncofertility preservation should be strongly encouraged prior to cytotoxic cancer treatment.