CHARACTERIZATION OF ONCOFERTILITY AND ELECTIVE FERTILITY PRESERVATION PATIENTS: UTILIZATION AND OUTCOMES

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INTRODUCTION:

- Each year, over 100,000 people under 35 in the U.S. are diagnosed with cancer
- 42% of female survivors face ovarian failure due to the gonadotoxicity of cancer therapies
- limited research exists on the oncofertility population and their outcomes, including return rates for using cryopreserved material among cancer patients
- Oncofertility patients face unique challenges, such as medical comorbidities and different treatment timelines, as well as a younger age which could all affect outcomes in this population
- Few studies have directly compared the outcomes of EFP versus oncofertility patients to determine differences in utilization and success rates.

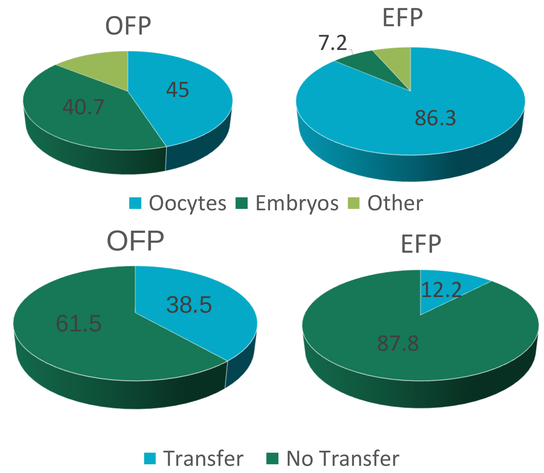
METHODS:

This study considered all autologous oocyte retrieval cycles from January 2010 to September 2023 in women presenting for fertility preservation were included. Patients were categorized into (1) Onco-Fertility Preservation (OFP) group: Cancer treatment was the diagnosis for first oocyte retrieval, (2) Elective Fertility Preservation (EFP): No other fertility diagnoses or medical conditions noted. Only the first oocyte retrieval cycle and embryo transfer for each patient was included for analysis. Our primary objective was to compare the cycle characteristics and utilization of cryopreserved oocytes/embryos between the two groups. Secondary outcomes included positive pregnancy, intrauterine pregnancy (IUP), live birth (LB), singleton birth weight and gestational age of delivery in the two groups.

Objective: Compare the utilization and outcomes of oocyte and embryo cryopreservation between female cancer patients undergoing fertility preservation and those undergoing elective fertility preservation over the last decade in the US.

Demographics	Oncofertility Patients (OFP) (n=1,483)	Elective FP Patients (EFP) (n=8,114)	p value
Age at cycle day 1	32.8 (5.5)	35.3 (3.5)	<0.001
Number of patients with oocytes frozen	667 (45.0%)	7,007 (86.3%)	<0.001
Number of patients with embryos frozen	604 (40.7%)	584 (7.2%)	<0.001
Number of mature (MII) oocytes retrieved	10.3 (8.8)	10.7 (8.6)	0.914
Number of embryos frozen for patients who froze embryos	2.14 (3.8)	3.9 (0.1)	<0.001
Number of patients with no transfer	912 (61.5 %)	7,128 (87.8%)	<0.001
Number of patients who proceeded to transfer	571 (38.5 %)	986 (12.2%)	<0.001
Outcomes	Oncofertility Patients (OFP) (n=566)	Elective FP Patients (EFP) (n=978)	
Number of transfers with positive pregnancy rate (% per total FETs)	448 (79.2%)	804 (82.2%)	0.139
Clinical pregnancy rate per total FETs	417 (73.7%)	757 (77.4%)	0.098
Live birth rate per total FETs	381 (67.3%)	638 (65.2%)	0.406
Birth weight (Singletons only) (g) (Mean (SD))	3,270 (619.9)	3,203 (601.4)	0.100
Gestational age at delivery in weeks (singletons only) (Mean (SD))	38.1 (2.22)	38.1 (2.02)	0.881

All values were presented as mean +/- SD or percentage (%) as appropriate. T-tests were used to compare means between the two groups and Chi Squared test was used to compare frequencies.



Conclusions:

Our findings highlight that although patients in the OFP group may exhibit different preservation strategies and return rates than EFP patients, the overall reproductive success remains consistent between OFP and EFP groups.

Oncofertility patients and elective fertility preservation patients have similar outcomes despite different preservation strategies and return rates.