TITLE:
THE PREVALENCE OF ABNORMAL MAMMOGRAMS IN OVUM RECIPIENTS DOES NOT CORRELATE WITH RECIPIENT AGE

AUTHORS:

Sara E. Yerkes, RN, MS, WHNP[1]; Jorge Rodriguez, MD[1], Joseph Lee, BA[1]; Michael Whitehouse, BA[1]; Margaret Daneyko, RN[1]; Benjamin Sandler, MD[1, 2]; Alan Copperman, MD[1, 2].

AFFILIATIONS:

1. Reproductive Medicine Associates of New York, 635 Madison Ave 10th Floor New York, New York, United States, 10022

2. Department of Obstetrics, Gynecology and Reproductive Science, Mount Sinai School of Medicine, Klingenstein Pavilion 1176 Fifth Avenue 9th Floor New York, New York, United States, 10029.

OBJECTIVE:

Ovum recipients undergo endometrial preparation with estrogen to mimic the natural menstrual cycle. Recipients ≥40 years are required to complete a mammogram, but younger patients are not. The study sought to compare if the prevalence of an abnormal mammogram in ovum recipients increases with ovum recipient age.

DESIGN:

Retrospective analysis

MATERIALS AND METHODS:

Patients who had a mammogram prior to starting an ovum donation cycle from 2010 – 2014 were included. The following Breast Imaging Reporting and Data System (BIRADS) categories were used for reporting mammographic results: 0: incomplete (needs additional image evaluation and/or prior mammograms for comparison); 1: negative; 2: benign; 3: probably benign; 4: suspicious; 5: highly suggestive of malignancy; and 6: known biopsy (proven malignancy). Patients were segregated into two groups according to age (Group A: <40; Group B: ≥40). A Chi-Square test was used for statistical purposes with significance met a $p < 0.05$.

RESULTS:

A total of 284 patients underwent an ovum donation cycle during the study period (Table 1). A normal mammogram (BIRADS 1, 2 or 3) was observed in 95.4% and abnormal (BIRADS 4, 5 or 6) in 4.6%.

Results per BIRADS category is reported in Table 1. Prevalence was statistically similar between cohorts except in BIRADS 0.

CONCLUSION:

In the United States, breast cancer is the leading cause of cancer-related death in women ages 40 to 49 years. High endogenous estrogen levels increase the risk of breast cancer (particularly hormone receptor-positive types) in postmenopausal and premenopausal women. Screening mammography is the primary imaging modality for early detection of breast cancer and is the only method that consistently is used to prevent breast cancer-related mortality. Mammography may detect cancer 1.5 to 4 years before cancer becomes clinically evident. While those patients <40 that undergo donor egg IVF cycles are not required to have a mammogram, the cohort of patients have a similar risk of abnormal mammograms. This is significant given the current guidelines for mammograms and especially with the synthetic estrogen administered to patients. In counseling patients who are preparing for an IVF cycle, clinicians should consider obtaining a mammogram prior to starting treatment.

TABLE:

BI-RADS	<40 years old	≥40 years old	Chi Square
	n=175	n=1282	
0	9.4% (n=12)	4.1% (n=39)	$p<0.05$
1	56.5% (n=115)	64.3% (n=928)	NS
2	28.6% (n=40)	27.5% (n=275)	NS
3	4.4%(n=6)	2.8% (n=26)	NS
4	1.0%(n=2)	1.3% (n=14)	NS
5	0%	0%	n/a
6	0%	0%	n/a