INTRODUCTION

Breast cancer (BC) is the most common malignancy in women in the United States. The American Cancer Society estimates that 235,330 Americans will be diagnosed with invasive breast cancer and 40,430 will die of the disease in the United States in 2014. There is good evidence that breastfeeding (BF), and prior radiation exposure (RE) have been shown to be associated with risk of initial breast cancer. Recently, a case control study found an association between the oral contraceptive (OCP) use and breast cancer risk factors. Our study showed breastfeeding decreases the risk of recurrence of breast cancer, while oral contraceptive usage and exposure to radiation in past increases the risk of recurrence of breast cancer.

STUDY AIM

• The aim of our study was to examine the association between maternal factors including age, BMI, age of first pregnancy, BF, number of children breastfed, RE, years of OCP usage and BF, and risk of BC was found. The average age in the group with recurrence of breast cancer was 54 years vs. 56 years, respectively. A statistically significant dose-effect for number of children breastfed and OCP, and years of OCPs usage and BF was found. In multivariate analysis, age, BF, OCP and RE each had significant impacts on the recurrence. After adjusting for other co-factors Patients who did not breastfeed had a 3-fold increased risk of recurrence compared to those who breastfed at least 3 children [aOR of 2.9 (1.7-4.9)].

RESULTS

• Breastfeeding (BF) decreases and oral contraceptive (OCP) increases the incidence of breast cancer (BC). A total of 2546 patients were surveyed, of which 218 patients had BC later in life. The average age of pts with recurrence was 54 yrs and those without BC was 56 yrs. Of the total, 73.5% had BF, 25% had used OCP, 17.3% used HRT, 5.6% had RE, 16.6% had a hysterectomy, and 16% had BD. In multivariate analysis, age, BF, OCP and RE each had significant impacts on the recurrence. Pts who did not BF had a 3-fold increased risk of recurrence compared to those who breastfed at least 3 children [aOR of 2.9 (1.7-4.9)].

Statistical Analyses:

• Univariate analysis was done using t-test and chi-square test for continuous and categorical variables, respectively. The association [adjusted odds ratio (aOR)] between rBC and predictors of recurrence of breast cancer (RBC)

METHODS

• Univariate analysis was done using t-test and chi-square test for continuous and categorical variables, respectively. The association [adjusted odds ratio (aOR)] between rBC and exposure (RE), years of OCP use, benign breast disease (BD), hysterectomy, hormone replacement therapy (HRT) and BC. In this study we examined association is between these risk factors and recurrence of breast cancer.

• Univariate analysis was done using t-test and chi-square test for continuous and categorical variables, respectively. The association [adjusted odds ratio (aOR)] between rBC and predictors of recurrence of breast cancer (RBC)

• Predictors of Recurrence of Breast Cancer (RBC)

VARIABLES β ESTIMATE ADJUSTED OR (CI) p VALUE

Age 0.002 1.02 (1.008-1.03) 0.002

Breastfed (BF, none vs. > 3 children) 1.06 2.9 (1.7-4.9) <0.0001

Breastfed (BF, < 3 yrs vs. > 3 children) 0.74 2.09 (1.2-3.5) 0.006

Oral Contraceptive use (OCP, no vs. yes) -0.743 0.47 (0.32-0.69) 0.001

Radiation exposure (RE, no vs. yes) -1.31 0.36 (0.16-0.63) 0.0001

HRT (no vs. yes) 0.4 1.49 (0.96-2.3) 0.07

CONCLUSIONS

• Our study showed breastfeeding decreases significantly the risk of recurrence of breast cancer, while oral contraceptive usage and exposure to radiation in past increases the risk of recurrence of breast cancer.

References


