Breast Cancer and its Associated Factors among Women Visiting Oncology & Surgery OPD and Ward of JHL

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Abstract- **Background**: Breast Cancer is a commonest malignancy and is the second most cause of cancer related deaths among female. The knowledge of its risk and protective factors is important to the adoption of primary prevention strategies. Occurrence of breast cancer is related to genetic as well as cultural, environmental and life-style factors. Variations in diversity of these factors among different ethnic groups and geographical areas emphasize the immense need for studies in all racial-ethnic populations. **Objective:** To study the risk factors for breast cancer among female visiting Surgery and Oncology OPD and ward of Jinnah Hospital Lahore. **Materials and Methods**: A cross sectional study was conducted at the tertiary care hospital, Jinnah Hospital Lahore, with a sample size of 200. Sampling technique was non-probability purposive sampling. **Results:** Among the females having Breast Cancer, the use of contraception was 26% with the p-value = 0.00 which was significant. Mothers who did not breast feed their children were 24% with p – value =0.00 which was also found to be significant. Females with positive family history of Breast Cancer was 34% with the p-value=0.00 which was statistically significant. **Conclusion:** Positive Family history and use of Oral contraceptives are the significant Risk factors of Breast Cancer while being Multiparous and promoting Breast feeding reduces the possibility of Breast Cancer.

Index Terms- Breast Cancer. Contraception. Family History

I. INTRODUCTION

Breast cancer is a hormonally mediated disease caused by repeated exposure of breast cells to circulating hormone. Breast Cancer is the commonest malignancy and second most cause of cancer related deaths among females comprising of 18% of all female cancers .[1.] Number of breast cancers is rising each day and approximately 1 million new cases appear in world each year.[2] Every 3 min a woman is being diagnosed with breast cancer. [3]. According to World Cancer Report incidence would go up by 50% to 1.5 million by year 2020.[1]

Chronic stressful life events in women were associated with an increased incidence of breast cancer due to stress-induced inhibition of estrogen synthesis. [5]Breast cancer appeared to be higher in women with increasing age, early menarche (<12 yr), late menopause, first full term pregnancy (FFTP) after age of 30 yrs. [2] Breast Cancer also proved to be associated with family history of endometrial cancer and history of exogenous hormonal intake. [2] Nulliparity and history of never having breast fed proved to be a risk factor of breast cancer. [6]

Overweight postmenopausal women had 10-20% risk of breast cancer whereas obese postmenopausal women had 30% risk of breast cancer.[3]Increased BMI proved to be a protective factor before menopause but detrimental after menopause, but still reports on this are inconclusive. [7]Nutrition also played a role as a risk factor in early life. [8] Similarly those women who used Oral contraceptives specifically before first full term pregnancy is at an increased risk of developing Breast Cancer. [9]

Socioeconomic status and life style changes and menstrual pattern changes are found to be responsible for a rise in breast cancer in developing countries. Moreover, increased life Expectancy had increased the burden of breast cancer. [10]

There seems a geographical variation in incidence and mortality rates of Breast Cancer suggesting that risk factor for breast cancer vary in different parts of the world. [3]

Therefore, objective of this study was to determine the prevalent risk factors in our society contributing to a mass increase in Breast Cancer in our society.

II. METHODOLOGY

A cross sectional study was conducted at Oncology and Surgery OPD and wards of Jinnah Hospital Lahore, a 1500 bedded tertiary Care hospital located at Shabbir Usmani Road. Sample of 200 patients was taken through non probability purposive sampling. Duration of study was 3 months. Inclusion criteria was all married women, women diagnosed as having Breast cancer and women visiting for follow ups after successful treatment. Exclusion criteria included patients with terminal stage Breast cancer, patients having breast lump with no biopsy report and non-compliant breast cancer patients. Data was collected on a structured questionnaire after approval of ethical committee and informed consent of the departments. Data was analyzed by using computer software SPSS (statistical Package for social sciences) version 17.00. Frequency tables were generated for dependent and independent variables. Chi square test for qualitative variables and t-test for Quantitative variables was applied to see the level of significance of relation between various variables.

III. RESULTS

Table 1: USE OF CONTRACEPTIVES BY THE RESPONDENTS

Contraceptives Use	Frequency	Percent
No	148	74.0
Yes	52	26.0
Total	200	100.0

Table 2: RESPONDENTS HAVING FAMILY HISTORY OF BREAST CANCER

Family history	Frequency	Percent
No	132	66.0
Yes	68	34.0
Total	200	100.0

IV. RESULTS

Mean age of diagnosis was 46.14 of patients suffering from the diagnosis of Breast Cancer. About 98 (49%) patients having Breast Cancer were those married at an early age of 15-20 yrs. About 37 (18.5%) patients were Nulliparous who had Breast Cancer. The use of Hormone replacement therapy and contraceptives among Breast Cancer patients was 45 (22.5%) and 52 (26%) respectively. (Table 1). A positive Family History of Breast Cancer was seen in 68 (34%) cases (Table 2). Among those married, 38 (19%) had first full term pregnancy at age of 26-35 yrs. About 48 (24%) did not breast feed their children thus eliminating the protective factor. Breast Cancer was found more prevalent in child bearing and post menopausal women with 73 (36.5%) and 53 (26.5%) cases respectively. About 43.5% (87) were overweight with a BMI of 24.9- 29.9.

The results showed that Breast Cancer was more prevalent in low socioeconomic group with 108 (54%) patients having an Income/capita of 500- 5000 Rs. The results showed that 67 (33.5%) of females had an early age of menarche (<= 12 yrs)

Multiple Response table for risk factors revealed 33.5 % of cases had an early age of menarche with p-value=0.00 which was statistically significant. Nulliparity was seen in 18.5% of cases with the p–value = 0.000 so was significantly associated in causing Breast cancer. No breast feeding was seen in 48 (24%) of cases with the p value = 0.000 which is statistically significant. Family history of Breast Cancer was seen in 68 (34%) of cases with the p-value = 0.000 which is statistically significant. Use of contraceptives was seen in 52 (26 %) of case with the p-value = 0.000 which is statistically significant.

V. DISCUSSION

Breast Cancer incidence rates are increasing worldwide. The continuing rise in Breast Cancer incidence has created an urgent need to develop strategies for its factor.

Age is an important risk factor. Breast Cancer risk increases as age advances. In our study mean age of Breast Cancer patients were 46.6. Average age of cases in a study at India was 49.9.[3] Early age of menarche (<=12 yrs) was found to be in 67 (33.5%) of females which did not match with the results of another case control study at Tertiary Care Hospital Karachi with early age of menarche(<=12 yrs) found in 25 (8.7%) of female cases only. [11]

Breast Cancer was found in 37 (18.5%) nulliparous females in our study. In study at Fatima Jinnah College showed that 14 (7%) patients were nulliparous.[12]

About 48 (24%) did not Breast feed their children and among 76% who breast fed, 60 (30%) were those who breast fed for less than 2 yrs. In another study conducted at China women who did not breast fed were 43 (22%).[13]

In our study Breast Cancer was more prevalent in Child bearing age with 73 (36.5%) of female cases. In contrast a study conducted by Ghausia Masood at Punjab University 188 (42%) cases of Breast Cancer were found to be premenopausal women. [7]

Family History of Breast Cancer among first degree relatives was seen in 68 (34%) of cases. A study published in Asian Pacific Journal of Cancer, family history was positive in 59 (10.1%) cases of Breast Cancer.[11]

In our of use study the use of hormone replacement therapy and Oral Contraceptives pills among Breast Cancer patients was 45 (22%) and 52 (26%) respectively. Whereas in a study at Iran, Oral Contraceptives use was 61.1% in Breast

Cancer patients and HRT use was 28.6%.[3] Our results showed that Breast Cancer is prevalent more in low socioeconomic group with results as 108 (54%) cases. The study done at Punjab University showed that 858 (63.8%) cases belonged to low socioeconomic group.[5]

VI.   CONCLUSION

The findings of the present study suggests that positive family history of breast cancer and history of using OCP may be the epigenetic factors promoting the occurrence of breast cancer while breastfeeding and multiparity reduces the possibility of acquiring breast cancer. The study confirmed a few of the recognized risk factors among Pakistani women so we should promote breast feeding and should raise breast cancer awareness among Pakistani Women.

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