

Incidence of Breast Carcinoma Risk in Pregnancy and its Results in Our Population

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ABSTRACT

Background: Aim: To study the incidence of breast cancer in pregnancy and its results in our population. Study design: case series. Place and duration: In the Surgical Unit-II and Obstetrics and Gynecology department of Jinnah Hospital Lahore for one-year duration from April 2019 to April 2020. All patients with confirmed breast cancer are included. **Methods:** All patients with histologically confirmed pregnancy-related breast cancer, admitted with OPD or referred from the Gynecology Department were assessed. **Results:** The total number of patients during the study period was 8 (10.9%) of the breast cancer out of 73 cases. Five (62.5%) were under the age of forty, and the mean age of first menstruation was 13.4 years. Three (38%) had four births, while almost all six (75%) breastfed their babies. The maximum number of patients, three (38%) presented in the second trimester, four (50%) were in stage III when PABC was diagnosed. Four (50%) of the pregnancies ended in termination during the period studied, and 38% of the women died at various stages of treatment. **Conclusion:** Breast cancer, which is the most common malignant disease in pregnant women, is still rare, but is apparently increasing due to the advanced age of the first pregnancy, as well as physiological changes in pregnancy and masked malignancy features require careful examination and evaluation of the breast in early pregnancy.

Keywords: Pregnancy, breast cancer, outcome.

INTRODUCTION

Pregnancy-related breast cancer is always a risky problem, fraught with obstetric, surgical, medical, perinatal as well as psychological, emotional and moral problems for both the patient and her doctor. Breast cancer during pregnancy or in the first year after delivery is pregnancy-related breast cancer¹⁻². As much as 3.8% of all breast cancers are pregnancy-related.² The higher the age of the first pregnancy, the incidence of breast cancer is almost three times higher than that of become pregnant in their late teens³⁻⁴. With the tendency to prefer late-life pregnancy, the incidence is also increasing. Microanatomical and endocrine changes in the breast during pregnancy make it difficult to test and interpret test results, making diagnosis even more difficult⁵⁻⁶. Scarff Bloom's pregnancy-related breast cancer, Richardson grade, appears to be higher than in pregnant patients⁷⁻⁸. For the same reason, mammography and fine needle aspiration cytology (FNAC) are of limited value in diagnosis during pregnancy and, conversely, biopsy is of greater value⁹ who advocate chemotherapy at its smallest stages. Modified radical mastectomy is the best option. The aim of this study was to evaluate the incidence of breast cancer in pregnancy and its outcomes in our population.

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MATERIALS AND METHODS

This case series study was conducted by the Surgical Unit-II and Obstetrics and Gynecology department of Jinnah Hospital Lahore for one-year duration from April 2019 to April 2020. The clinical data of all these patients were recorded on a proforma. These patients were either referred from the gynecology department or admitted to the outpatient clinic. In most cases, the diagnosis was confirmed by ultrasound and cytology of fine-needle aspiration. Only those in which fine needle aspiration cytology was a non-diagnostic open biopsy.

RESULTS

Table 1: Trimester

Trimester	No.	%
1 st	2	25
2 nd	3	37.5
3 rd	2	25
Purperium	1	12.5

During the period considered, the total number of pregnancy-related breast cancer cases was eight (10.9%) of the total number of breast cancers. Five (62.5%) were under forty, one (12.5%) under thirty, and two (25%) under forty-five. Most of them, six (75%) belong to the low socioeconomic group, and nearly all of them six (75%) were breastfeeding their babies, with the average age of their first menstrual period being 13.4 years.

Table 2: Stages

Stage	No	%
1	1	12.5
2	2	25
3	4	50
4	1	12.5

Three (38%) had four parities. Two (25%) had a personal or family history of breast or other malignancies, and two (25%) had a history of taking oral contraceptives or other hormones. Maximum number of three patients (38%) presented in the second trimester [Table 1]. Four (50%) of the eight patients were stage III, while two (25%) were stage II [Table 2].

Table 3: Frequency of Breast Carcinoma in Pregnancy.

Trimester	Stage	Termination	Treatment
1st	1	Yes	MRM + Hormone
1st	3	Yes	MRM + Hormone +
2nd	2	No	Chemo + Radio
2nd	3	Yes	MRM + Hormone +
2nd	3	Yes	Post Delivery Radio
3rd	2	Delievered	MRM + Hormone +
3rd	4	Delievered	Chemo
Purperium	3	---	MRM + Hormone + Chemo Followed by MRM + Radio + Hormone Toilet Mastectomy + Chemotherapy MRM + Chem + Hormone + Radio

During the study period, three (37.5%) died in different phases of treatment, and four (50%) pregnancies ended in termination of pregnancy due to aggressive treatment or died in the early perinatal period. The presentation of patients in different trimesters of pregnancy, treatment stages and pregnancy outcomes are presented in [Table 3]. Fine needle aspiration cytology and ultrasonography detected 63% of cases, while open biopsies were needed in 37% and the results of fine-needle aspiration cytology were inconclusive.

DISCUSSION

Breast cancer is the most common malignancy occurring in pregnancy, accounting for 0.1% of all pregnancies. There is also skepticism and limitations in the use of mammography and FNAC, making diagnosis relatively difficult and often delayed. Treatment failure as well as worse survival. In this study, the maximum number of patients was under the age of 40, which corresponds to studies by other authors.^[10] The incidence has always been higher in Europe, but the same is true for rice in developing countries, in this study most of them belong to a low socioeconomic group, contrary to the generally accepted view of its greater dominance in the upper

class.^[11,12] This study found that the maximum number of female patients had four or more deliveries, which is in contradiction with the previous Woo study. Various studies have found a correlation between personal or family history of breast and other cancers but we found this history in only 25% of cases. More than 75% of women at the time of presentation had a positive lymph node, which correlates with studies documenting advanced stage at the time of presentation during pregnancy, we also confirmed the diagnosis in most patients using this method.^[11,12] Various studies indicate that the only advantage of termination of pregnancy is aggressive treatment of advanced disease without considering the consequences of the fetus. However, our procedure takes into account the stage of pregnancy, childbirth, whether the pregnancy is valuable or not, the patient's own wish and the related emotional and social consequences.^[13,14] Gwynk has shown that modified radical mastectomy is the treatment of choice in the diagnosis of cancer in pregnancy, while chemotherapy can be used in late pregnancy and radiotherapy is best avoided.^[15,16] This correlates well with this study. The present study has shown that late diagnosis at an advanced stage is the sole cause of maternal death and fetal loss, correlating with global data.

CONCLUSION

This study found more patients involved at a younger age and a relatively greater number of deliveries than documented worldwide.

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