

FREQUENCY OF BREAST CARCINOMA IN PREGNANCY AND ITS OUTCOME IN OUR POPULATION

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ABSTRACT

Objective: To study the frequency of breast carcinoma in pregnancy and its outcome in our population.

Design: Case series.

Setting & Duration: Surgical Unit III, Civil Hospital Karachi from January 2001 to September 2007.

Patients: All the patients of proven pregnancy associated Breast cancer were included

Methodology: All those patients with pregnancy associated breast cancer proven by histology admitted either through OPD or referred from Gynaecology Department were evaluated.

Results: During the study period total number of patients were eight (10.9%) out of 73 total cases of breast carcinoma. Five (62.5%) were under the age of forty years while mean age of menarche was 13.4 years. Three (38%) had parity of four, while almost all of them six (75%) breast fed their babies. Maximum number of patients, three (38%) presented in second trimester, four (50%) were in Stage III when diagnosed as a case of PABC. During the study period four (50%) ended up in termination of pregnancy and 38% of females died during different stages of treatment.

Conclusion: Breast Cancer which is the most common malignant condition in pregnant women has through still at a low incidence but is apparently on the rise due to advance age at first pregnancy as well as physiological changes in pregnancy masked features of malignancy necessitate thorough examination and evaluation of breast in early pregnancy.

KEY WORDS: Pregnancy, Breast Cancer, Outcome

INTRODUCTION

Pregnancy associated Breast Cancer is always a dicey issue, fraught with obstetrical, surgical, medical, per-natal, as well as psychological, emotional and moral issues, both for the patient and her clinician. Breast cancer during pregnancy or during first year after delivery is pregnancy associated breast cancer.¹ Upto 3.8% of all the breast carcinoma are associated with pregnancy.² The higher the age of first pregnancy the greater is the incidence of breast carcinoma almost

thrice to those who conceive in late teens.³ With the tendency to prefer late age pregnancy, the incidence is also on the rise. Micro anatomical and endocrinological changes occurring in the breast during pregnancy render it more difficult to examine and interpret its examination findings thus making the diagnosis all the more difficult.⁴

Scarff Bloom, Richardson grade of Pregnancy associated breast carcinoma appears to be higher than in non-pregnant patients.⁵ For the same reason Mammography and Fine Needle Aspiration Cytology (FNAC) are of limited value in diagnosis during pregnancy and inversely biopsy is of greater value.⁶

There is hardly any role of radiotherapy of breast cancer during pregnancy though there are some who advocate chemotherapy in least stages. Modified Radical Mastectomy is the best option.⁷

The purpose of this study was to evaluate the frequency of breast carcinoma in pregnancy and its outcome in our population.

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METHODOLOGY

This case series study was carried out by Surgical Unit III, Civil Hospital Karachi from January 2001 to September 2007. Clinical records of all these patients were recorded on a proforma. These patients were either referred from Gynaecology Unit or admitted through Out-patient Department. In most of the cases the diagnosis was confirmed by ultrasound and Fine Needle Aspiration Cytology. Only those in which Fine Needle Aspiration Cytology was non diagnostic open biopsy was performed.

RESULTS

During the study period, the total number of Pregnancy Associated Breast Cancer were eight (10.9%) out of 73 total cases of breast cancer. Five (62.5%) were under the age of forty years, one (12.5%) under thirty and two (25%) under forty five years. Most of them, six (75%) belong to low socio-economic group and almost all of them six (75%) breast fed their babies and the mean age of menarche was 13.4 years. Three (38%) had parity of four. Two (25%) had personal or family history of breast or other malignancies, while two (25%) had history of taking oral contraceptive pills or other hormones. Maximum number of patients three (38%) presented in second trimester, (See Table I). Four (50%) out of eight patients were in Stage III, while two (25%) were in Stage II (See Table II).

During the study period three (37.5%) died during different phases of treatment and four (50%) of pregnancies either ended into termination for aggressive treatment or died in early perinatal period. Presentation of patients in different trimesters, stages with the treatment given and pregnancy outcome can be seen in Table III. Fine Needle Aspiration Cytology and ultrasound diagnosed 63% of cases while open biopsies were needed in 37% where Fine Needle Aspiration Cytology results were equivocal.

DISCUSSION

Breast cancer is the commonest malignancy occurring

Table I. Trimester

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

during pregnancy, accounting for 0.1% of all pregnancy.^{2,5,8} There is also sceptism and limitation regarding the use of mammography and FNAC thus making diagnosis relatively more difficult and commonly delayed with resultant failure of treatment as well as poorer survival.^{1,4}

In this study maximum numbers of patients were under the age of forty years which corresponds to studies by other authors.⁴ The incidence was always higher in Europe but the same is on the rise in the developing countries as well⁹, in this study most of them belong to low socioeconomic group in contrast to the generally considered view of its greater prevalence in upper class.

This study showed maximum number of patients had parity of four or more which contradicts the previous study of Woo.⁶ Various studies have shown correlation between personal or family history of breast or other malignancies,^{5,6} but we found such history in only 25% of cases. More than 75% of women at the time of presentation had positive lymph node, this correlates with the studies which document advanced stage at the time of presentation.¹⁰⁻¹² Various studies^{1,12} prove that FNAC is the initial procedure of choice for evaluating breast masses during pregnancy, we also confirmed diagnosis in most patients by this modality. Various studies^{1,6,10,12} demonstrate that the sole advantage of termination of pregnancy is aggressive treatment of advanced disease without consideration of fetal consequences.

However, the stage of pregnancy, the parity, the fact whether pregnancy is precious or otherwise, the patient's own wish with the attendant subsequent emotional and social consequences were taken into consideration in our management. Gwynk³ demonstrate that Modified Radical Mastectomy is the treatment of choice when cancer is diagnosed during pregnancy while chemotherapy can be given in late pregnancy and radiotherapy is best avoided. This correlates well with this study. The current study showed late diagnosis with advanced stage is the sole cause of maternal death and fetal loss which correlates to world wide data.^{4,8}

Table II. Stages

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

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

Table III. Presentation and Outcome

CONCLUSION

In this study a higher number of patients were found involved at a younger age and a relatively greater parity than that documented world wide.

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