

Experience of Surgical Management of Carcinoma Breast

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This study was carried out in the Surgical Unit-I and III of Mayo Hospital, Lahore from August 1999 to July 2001 to assess the management of women presenting with proven carcinoma of the breast. This study included 49 patients. Forty of these patients presented with Stage II and stage III disease. Thirty nine percent of our patients were in the age group 41-50 years. With the exception of two all other patients were multiparous and they breast fed their young ones. Surgery, local radiotherapy, chemotherapy and hormonal treatment were the modalities used for the management of these cases. Patients were subjected to either incisional biopsy, simple mastectomy or modified radical mastectomy depending on the extent of the spread of disease

Key words: Surgery, local radiotherapy, chemotherapy

Approximately 400,000 women in the world die of breast cancer each year. In United States alone it is the second leading cause of cancer related mortality responsible for about 13,000 deaths annually¹. Most common breast problems causing women to seek medical attention are breast masses, nipple discharge, breast pain and abnormal mammograms. The evaluation of these problems varies with clinical circumstance but frequently includes mammography and needle biopsy techniques. The goal of this evaluation is to identify malignant lesions and provide adequate information for selecting therapy in an efficient and cost effective manner.

The dramatic increase in the incidence of carcinoma of the breast has made it imperative for all clinicians to develop a better understanding of this disease. A multidisciplinary approach which includes modalities such as surgery, chemotherapy, local radiotherapy, hormonal therapy and immunotherapy has resulted in a improved control of the breast cancer and has also improved the probability of survival². Surgery has a curative role to play in cases of ductal carcinoma in situ and in stage I and II disease. In stage III and IV disease surgery plays a palliative role. In the Western World, breast conservation treatment is considered the appropriate primary therapy for most women with stage I and II breast cancer.

This study was conducted to assess the role of surgery in the management of carcinoma of breast in our local setup in particular reference to the stage of disease at the time of presentation of the patient. Another aim of the study was to assess the role of established risk factors in the causation of cancer of breast in our patients.

Materials and methods

This study was carried out in the surgical units I and III of Mayo Hospital, Lahore over a period of two years. It included 49 patients. All the patients were admitted through Outpatients Department and were operated on elective list. All the cases were interviewed, examined, investigated and entries were made on a proforma prepared for this purpose. A detailed history of patient was taken to evaluate the role of established risk factors such as family

history of breast cancer, parity, breast feeding, age at menarche, menopause, h/o intake of oral contraceptive pill and hormone replacement therapy in the aetiology of carcinoma of breast. All those patients who had their operation done received postoperative shots of second generation cephalosporin. Patients stayed at the hospital for an average of eight days.

Results

The age incidence of the patients varied from 26 to 74 years. Majority of the patients i.e., 19 of them were in the age group 41-50 years. One patient had a bilateral disease.

Table 1. Age incidence

Age in years	n=	%age
21-30	2	4
31-40	10	20
41-50	19	39
51-60	9	19
61-70	7	14
71-80	2	4
Total	49	100

Table 2 and 3 depict the symptomatology and physical signs present in our patient.

Table 2. Symptoms

Symptoms	n=	%age
Painless lump	30	62
Painful lump	17	34
Blood stained nipple discharge	7	15

Table 3 Physical signs

Physical signs	n=	%age
Hard lump	47	96
Skin involvement	26	53
Fixation to chest wall	5	10
Indrawing of nipple	11	22
Palpable axillary lymph nodes	27	55
Swelling of the arm	1	2
Supraclavicular nodes	2	4
Hepatomegaly	2	4
Ascites	1	2
Right sided pleural effusion	1	2

Four (8%) patients had a family history of carcinoma breast. Three of them gave history of this disease in their first degree relatives. Age at menarche in majority of our patients was 13-14 years. Ninety five percent of our patients were multiparous. Only 10% of our patients had a history of intake of oral contraceptives. Average age of onset of menopause in our patients was 45 years.

Table 4 shows the anatomical site of involvement.
Table 4 Site of involvement

Site of involvement	n=	%age
Upper inner quadrant	8	16
Lower inner quadrant	4	8
Upper outer quadrant	28	57
Lower outer quadrant	6	13
Reteroareolar	3	6

All patients were staged as depicted in Table 5.

Table 5. Manchester Staging of patients.

Stage	n=	%age
I	4	8
II	22	45
III	18	37
IV	5	10

Patients were also graded according to the TNM classification. Majority of patients were graded T₂NoMo.

Table 6. TNM classification

TNM staging	n=	%age
A. Tumour		
T1	4	8
T2	24	49
T3	16	33
T4	5	10
B. Nodal status		
No	22	45
N1	14	29
N2	9	18
N3	4	8
C. Metastases		
Mo	44	90
M1	5	10

Table 7 shows the surgical procedures which our patients underwent during their admission.

Table 7. Surgical procedures

Surgical procedures	n=	%age
Incisional biopsy/Trucut biopsy	6	12
Simple mastectomy	7	14
Simple mastectomy with axillary clearance	36	74

All patients in stage I and II received adjuvant systemic therapy. All patients in stage III received systemic therapy and local radiotherapy. Patients with Stage IV disease underwent no surgical procedure but were referred to Oncology Department for adjuvant therapy. All patients (premenopausal and postmenopausal) who turned out to be estrogen receptor positive were started on hormonal

therapy. The most common type of tumour in 86% cases was moderately differentiated infiltrating ductal carcinoma.

Discussion

Benign breast problems and operable cancers form most of the workload for surgeons with an interest in breast diseases. Breast cancer is the commonest cause of death in middle aged women in Western countries.

In Western countries carcinoma of the breast is extremely rare below the age of 20, but thereafter the incidence steadily rises so that by the age of 90 nearly 20% of women are affected³. In our study about 60% of the patients were in the age group 31-50. In Western countries breast cancer is commoner in nulliparous women and breast feeding in particular appears to be protective⁴.

Another factor which is considered protective is late menarche and early menopause. This is also in sharp contrast to the findings in our study which shows that most of patients were multiparous, breast fed their young ones and never had a late menarche or early menopause. Our study does not prove a direct relationship between the role of exogenous hormones in particular the oral contraceptive pill and the development of disease. Our study strengthened the observation that breast cancer commences most frequently in the upper and outer quadrant of the breast.

In United Kingdom about 5% of breast cancers present with either locally advanced disease or symptoms of metastatic disease. This figure is nearer 30% in our study and other studies from the developing world.

In our study the treatment of early breast cancer involved Surgery. Systemic therapy such as chemotherapy or hormone therapy was added if there were adverse prognostic factors such a lymph node invasion^{5,6}. At the other end of the spectrum locally advanced or metastatic disease was treated by systemic therapy to palliate symptoms, with surgery playing a much smaller role.

Aims of treatment of early breast cancer both in the Western World and in our local setup is cure, control of local disease in the breast and axilla, and prevention of the occurrence of distant metastases⁷. Worldwide there has been a gradual shift towards more conservative techniques, backed up by clinical trials which show equal efficacy between mastectomy and local excision followed by radiotherapy^{8,9}. It is believed that avoiding mastectomy would alleviate considerable psychological morbidity associated with it. In our set up most of our patients come from lower socioeconomic strata, most of them are illiterate and after their discharge from the hospital they are lost for ever for follow up. After performing breast conservation procedures one requires a scrupulous follow up, regular postoperative screening tests and a literate, educated and cooperative patient. Keeping these factors in mind we have a aggressive approach for the treatment of stage I and II tumours. We would still go for simple

mastectomy and axillary clearance instead of quadrantectomy and segmentectomy followed by local radiotherapy.

In Western world mastectomy is now only strictly indicated for large tumours (in relation to the size of the breast), central tumours beneath or involving the nipple, multifocal disease, local recurrence or for patient preference¹⁰. In these countries despite an increasing trend toward conservative surgery upto 50% of women still require or want a mastectomy¹¹. None of our patients was offered an immediate or delayed reconstruction of breast.

Treatment plan was very similar for locally advanced inoperable breast cancer both in our setup and in Western countries. "Toilet" mastectomy was required to control a fungating tumour. These patients were treated with systemic therapy – either chemotherapy or hormone therapy. Similarly metastatic carcinoma of breast required some form of palliative systemic therapy to alleviate symptoms.

As can be judged from our above discussion that the role of surgery in the management of carcinoma of the breast decreases in patients with advanced disease^{12,13}. Moreover in early stages of the disease surgery alone or in combination with other modalities has a curative role. In order to reduce high morbidity and mortality associated with carcinoma of breast we should aim at early detection through screening to prevent or delay the development of the disease or to alleviate the consequences of carcinoma of breast. Various screening modalities which have been practised widely are mammography, clinical breast examination and breast self examination^{14,15}. Being a developing country we have our financial constraints so using mammography as a screening modality for every patient is next to impossible. However we should make efforts to create awareness among the general masses about the seriousness of this disease and should encourage our female population to undergo regular clinical breast examination or perform regular breast self examination. Efforts should be made to provide facility of

mammography at district headquarter hospitals for the screening of all high risk patients.

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