ORIGINAL RESEARCH

SPECTRUM OF CLINICAL PROFILE AND TREATMENT ASPECTS OF BREAST CANCER IN MALWA REGION OF PUNJAB

Vikas Goyal[1], Nitin Nagpal[2], Nitika Dhuria[3], Shamim Monga[4], Monica Gupta[5]

[1]Assistant Professor, [2]Associate Professor, Department of Surgery, [3]Assistant Professor, Department of Microbiology, [4]Assistant Professor, Department of Community Medicine, [5]Senior Resident, Department of Anaesthesia, GGS Medical College , Faridkot

ABSTRACT:
Introduction - Cancer is one of the most dreaded diseases in the world. Carcinoma breast is the most frequent cancer in women worldwide and also in India. Earlier carcinoma breast was thought to be a disease of high socioeconomic status and urban area, its prevalance is increasing in low socioeconomic and rural area in India at a alarming pace which needs to be addressed and represented. Material and Methods- Study was conducted in a retrospective manner in patients attending surgery department, from October 2013 to September 2015.The epidemiological data pertaining to demography, clinical presentation, risk factors, laboratory findings and treatment of carcinoma breast was obtained. Results-A total of 177 patients of breast cancer were admitted over a period of two years. The mean age of patients was 50.15+ 11.79 years. Most common age of presentation was 4th - 5th decade of life.173 (97.7%) patients were female and 4 (2.25%) were male. Based on menstrual history 81 (45.7%) patients were premenopausal and 96 (54.3%) patients were postmenopausal. Upper outer quadrant was the most favoured location found in 52.5%. Early breast cancer was seen in 19(10.7%) patients, Locally advanced breast cancer in 147(83.1%) and metastatic breast cancer in 11 (6.2%) of patients. Modified radical mastectomy was the most common surgery done in 89.2% of patients, while breast conservative surgery was done in 1.6% and toilet mastectomy was done in 9.2% patients. Conclusion- Our study showed late presentation, poor awareness and knowledge about breast cancer in rural area. Modified radical mastectomy should be preferred surgery in our set up. The government should take measures to increase awareness and educate women regarding breast self examination so that they can have early access to the treatment.
Keywords: Breast cancer, Epidemiology, Modified radical mastectomy

Corresponding author: Dr. Vikas Goyal, H. No. 229 , Medical Campus, Sadiq road , Faridkot, Email: drvikasgoyal2006@yahoo.com

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INTRODUCTION

Cancer is one of the most dreaded diseases in the world and the ten million new cases diagnosed every year, more than half are from developing countries.[1] Carcinoma breast is the most frequent cancer in women worldwide and also in India.[2,3] Presently 100000 new cases occur in India every year.[4] The information on epidemiology and natural history of disease in India is very limited. Very few studies have been conducted in India particularly in rural areas. Carcinoma breast is a systemic disease so it requires multidisciplinary approach comprising surgery, radiotherapy, chemotherapy and hormonal therapy. Previously thought to be a disease of well educated and high socioeconomic background, the disease has been manifesting in epidemic proportions even in rural population of India. But a breast cancer patient in rural population remains largely unrepresented in available literature. This is because usually studies in our country are urban and high socioeconomic patients oriented. In India there are gross inequalities of access to cancer treatment between rural and urban population because most tertiary hospitals are located in big cities and rural patients often end up receiving suboptimal treatment. Despite leaps and bounds of improvement in

treatment strategies in breast cancer it still remains a challenge in our subset of patients. Various factors like low socioeconomic status, lack of awareness, illiteracy are contributory. Also factors like irregular follow up, poor compliance, preference of alternative therapies (desi treatment) create problems for treating doctors in following specific protocols. The present study is conducted in tertiary care hospital situated in rural area of Malwa belt in border area catering to rural population of Punjab , Haryana and Rajasthan where bulk of patients belong to low socioeconomic status.

MATERIAL AND METHODS:

Study was conducted in a retrospective manner in patients attending surgery department, from October 2013 to September 2015, at Guru Gobind Singh Medical College Faridkot by studying there records in medical records department. The epidemiological data pertaining to demography, clinical presentation, risk factors, laboratory findings and treatment of carcinoma breast was obtained. All breast cancer patients were confirmed by cytological/histopathological examination were included in the study. Data obtained was analysed using IBM SPSS 17 software to get mean and standard deviation. Distribution of normal variables was compared using chi square test. P value of <0.05 was considered statistically significant for that variable.

RESULTS

A total of 177 patients of breast cancer were admitted over a period of two years. The mean age of patients was 50.15± 11.79 years. Minimum age was 23 years and maximum was 85 years. Range of age was 62 years. Most common age of presentation was 4^{th} - 5^{th} decade of life shown in table 1.

Table 1: Distribution of patients across different age groups

S. No.	Age group (in years)	Number of patients	Percentage
1	21-30	8	4.5%
2	31-40	46	25.9%
3	41-50	52	29.37%
4	51-60	42	23.7%
5	61-70	26	14.6%
6	71-80	6	3.3%
7	>80	2	1.1%

Table 2: Lump size

S. No.	Tumour size in centimetres	Number of patients	Percentage
1	< 2 cm	11	6.21%
2	2-5 cm	56	31.6%
3	5-10 cm	101	57.06%
4	>10 cm	8	4.5%

Table 3: Clinical profile

S. No.	Clinical presentation	No. of patients	Percentage
1	Lump only	97	54.8%%
2	Lump with pain	9	5%
3	Lump with bloody/serous discharge	14	7.9%
4	Peau D Orange	8	4.5%
5	Secondary changes like nipple retraction ulceration/ fungation/ skin nodules, etc	45	25.4%
6	Fixity to underlying muscle/chest wall	12	6.7%

Table 4: Location of lump

Upper outer	Upper inner	Lower outer	Lower inner	Central
93	23	19	16	26

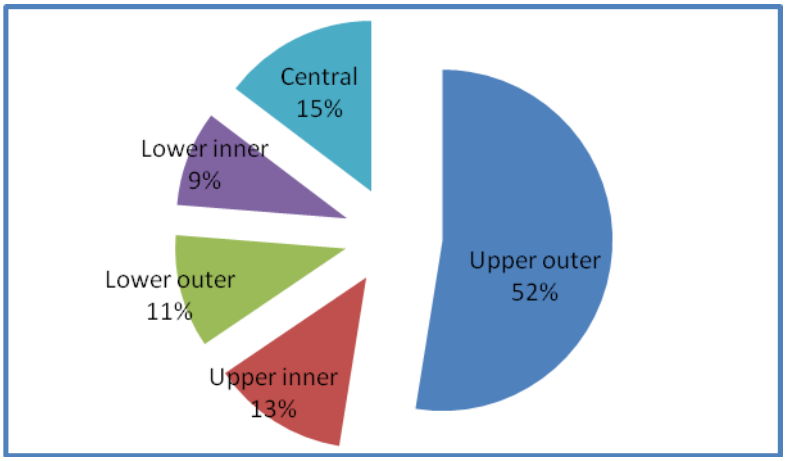

Table 5: Type of Disease

S. No.	Type of disease	Number of patients	Percentage
1	Early breast cancer	19	10.7%
2	Locally advanced breast cancer	147	83.1%
3	Metastatic breast cancer	11	6.2%

In the present study most patients 84.18%(149) were from rural background and 79.4%(141) were illiterate. 173 (97.7%) patients were female and 4 (2.25%) were male patients and male to female ratio of 1:43.25 . Most 40.6% patients had presented within 3-6 months of duration of symptoms whereas only a few patients had presented within a month of onset. This highlights the tendency of patients to present late in our set up.

Based on menstrual history 81 (45.7%) patients were premenopausal and 96 (54.3%) patients were postmenopausal. Family history was present in 2.2% (4) patients with first degree relative. Majority of the patients presented with chief complaint of painless lump breast (n=119,67.2%). Most of patients 101(57.06%) had presented with lump size between 5 to 10 centimetres (table2). There is an increasing tendency of late presentation among our subset of patients which is highlighted by the presentation with huge lumps. Other presentations were lump with pain. Lump with bloody/serous discharge. Small but significant number 23(12.9%) of patients presented with secondary changes like nipple retraction, ulceration, fungation. Table 3 highlights the clinical profile in our patients

Based on location upper outer quadrant was the most favoured location found in 52.5%, and central in 14.6% distribution of disease in various quadrants is given in table 4.

The most common method of diagnosis was by cytology. 165 (93.22%) patients were diagnosed with the fine needle aspiration cytology. In remaining 12 patients diagnosis was established only after lumpectomy specimen showed malignancy. Histopatholgy showed infiltrating ductal carcinoma in 76.4%, medullary carcinoma in 14.6%, mucinous 3.5%, infiltrating lobular in 3.5% and others 2%.

Depending upon clinical staging patients were divided into Early breast cancer seen in 19(10.7%) patients, Locally advanced breast cancer in 147(83.1%) and metastatic breast cancer in 11 (6.2%) of patients (table 5).

In early breast cancer 3 patients were treated with breast conservation surgery, while other 16 underwent mastectomy. In locally advanced disease neoadjuvant chemotheray was given in 70.06% (103) of patients. While 40 patients of LABC went for modified radical mastectomy and 5 patients of LABC required toilet mastectomy

Based on surgical therapy given Modified radical mastectomy (photo 1) was the most common surgery done in 89.2% of patients, while breast conservative surgery was done in 1.6% and toilet mastectomy was done in 9.2% patients(table 6). Common complications encountered in the postoperative period were as following. Seroma was seen in 15.4% patients, wound infection in 6% and skin flap necrosis was seen in 4.5% of patients.

Table 6: Type of surgery

S no	Type of surgery	Number of patients	Percentage
1	Modified radical mastectomy	158	89.2%
2	Breast conservation surgery	3	1.6%
3	Toilet/Palliative mastectomy	16	9.2%

DISCUSSION

Survival in breast cancer patients has improved substantially over the years as a result of multimodal treatment, comprising of local treatment by surgery and radiotherapy; systemic treatment by chemotherapy and hormonal therapy.[5] Studies on early stage breast cancer (EBC) from the developed countries have reported 20 year survival rates.[6] But in India very less number of patients come with early breast cancer. Our population poses a challenge as socioeconomic status, habits, awareness levels are different from western population thus there is a need to tailor the treatment as per of the local population In our study, majority of patients presented in 4th - 5th decade of life as represented in other studies from India. [3,7-9] But western world studies show that female breast cancer is common in fifth and sixth decade.[10] In India, breast cancer is more common in younger premenopausal women and patients often present with locally advanced disease.[11] So strategies for prevention of carcinoma breast are required. Women must be made aware of breast self examination. The incidence of breast cancer in male is 2.25% which is similar to other publisher in literature.[12,13] In the present study, majority of patients were from low socioeconomic status and 84.18% patients were having rural background. However studies in western countries and India [11,12] show higher incidence in urban population perhaps because our institute mainly caters to rural population . Also 79.1% were illiterate

Lump was the main presenting symptom in our study and majority 57.06% were having a size of 5-10 cm (clinically T3). JS Nigam et al reported an average size T2 i.e. between 2 and 5 cm.[14] The authors have seen a patient who presented 30 x 30 cm lump.(photo 1) Also high number of patients presented with secondary changes. In western world due to easy availability of health care facilities, higher literacy rate and mammography screening programs has shifted to early detection of breast cancer patients. In our population, due to low literacy rate, less health care facilities especially for rural population it is important to educate masses about the disease.

Figure 1: Large primary tumour [about 30x30cm]

Patients were mainly diagnosed by fine needle aspiration cytology in 93.22% while rest of patients 12 were having previous lumpectomy for suspected benign disease which in histopathology examination turned out to be malignant. FNAC is a diagnostic procedure of choice for solid palpable lesions which are clinically are of suspicious pathology. FNAC is a cost effective investigation particularly in our country where mammography, MRI is not easily available and costly.[15,16] Similarly bone scan should be done only in stage 3 patients as complete metastatic work up is not required in all cases. Literature also supports these findings.[17,18] In our study, most of patients presented in locally advanced stage (83.05%), and 10.7% in early and 6.2% in metastatic stage. The reason of delayed presentation in this study is due to rural area, lack of awareness, poverty, quacks treatment and less health care facilities. In our patients, Modified radical mastectomy was done in 89.2% of patients, Breast conservative surgery was done in 1.6% and toilet mastectomy in 9.03% of patients. Though Breast conservative surgery for early breast cancer patients is popular in western world and urban centres in India. Local recurrence after breast conservation surgery is high which needs s radiotherapy, but in India number of centres with radiation therapy units is less.[19-21] Modified radical mastectomy was our preferred operation done even in early cases because of poor compliance and follow up, patient ignorance and illiteracy. Sandhu et al and Arafat et al also reported of having done modified radical mastectomy in early breast cancer.[7,22]

Postoperative Seroma was seen in 15.4% patients, wound infection in 6% and skin flap necrosis was seen in 4.5% of patients comparable to other studies.[23,24]

CONCLUSION

The breast cancer is increasing at a alarming speed in our country. Earlier considered a disease of urban people, it is common in rural people and that also in early age. Carcinoma breast patients can be detected early by breast self examination and by simple and cost effective test of fine needle aspiration cytology. Also for screening certain more cost effective modalities should be devised. So awareness camps and funding in public health schemes in rural population is the only way to identify early breast cancer in developing low socioeconomic countries.

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