

## Clinical profile and treatment outcome of breast cancer patients

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### Abstract

**Background:**The present study was conducted to assess clinical outcome of breast surgery patients.**Material & Methods:**72 female patients who underwent breast surgery in last 4 years were recorded. Survival outcome was estimated.**Results:** Age group 20-40 years had 65 and 40-60 years had 25 patients. Type of surgery was breast conserving done in all 90 patients. Axillary lymph node dissection was done in 60 and sentinel lymph node biopsy in 30 patients. Chemotherapy was done in 56 and not done in 34 patients. Adjuvant radiotherapy was done in 62 and not done in 28, neoadjuvant chemotherapy was performed in 50, histologic grading was 1 in 26, 2 in 30, 3 in 24 and unknown in 10 patients.**Conclusion:**Maximum patients existed between 30-40 years age group. Treatment given was breast conservative.

**Key words:** Breast, chemotherapy, Adjuvant radiotherapy.

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### Introduction

Breast cancer is the most common female malignancy and is the second common cause of cancer death in women. Due to its high incidence, breast cancer is also a major health issue for women with medical co-morbidities[1]. Breast cancer is the most common type of female cancer worldwide. In 2014, it was estimated to account for 29% (232,670) of all new female cancer diagnoses and to be the second leading cause of female cancer deaths in the United States[2]. In Korea, breast cancer constituted 13.7% (18,382) of all new female cancer cases in the same year, indicating breast was the second most common primary female cancer site next to thyroid. A multidisciplinary approach, including surgery, radiotherapy, and systemic therapy, is required for the treatment of breast cancer patients. Because human breast tissue is hormone-sensitive, the use of hormone therapy (or endocrine therapy) in estrogen and/or progesterone receptor-positive tumors constitutes a reasonable and appropriate treatment[3].

Surgical resection was one of the first effective treatments for breast cancer and continues to play a critical role in the treatment of this disease[4].

A multidisciplinary approach is now standard of care, involving a coordinated effort with the surgeon working in concert with the medical and radiation oncologist to achieve the best possible outcome for each individual[5]. However, some reported that elderly patients with co-morbidities have worse survival outcome despite the similar rates of adjuvant therapy administration[6]. The present study was conducted to assess clinical profile and outcome of breast patients.

### Materials & Methods

The present study was conducted among 72 female patients who underwent breast surgery in last 4 years. All were informed regarding the study and their consent was obtained. Data such as name, age, gender etc. was recorded. A thorough clinical examination was performed in all patients. Recurrence was defined as distant metastasis or loco-regional recurrence. Survival outcome was estimated. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant ( $P < 0.05$ ).

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**Results**

**Table 1: Distribution of patients based on age**

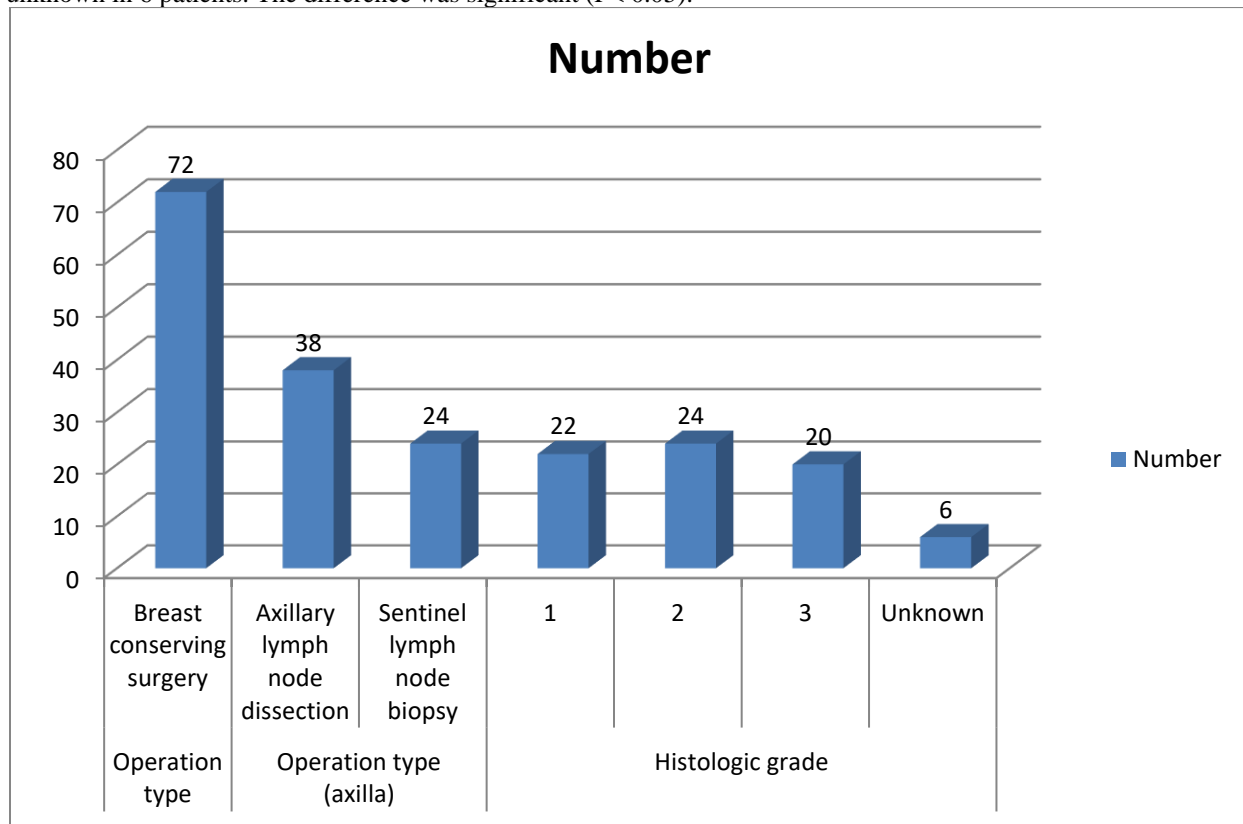
Age group (Years)	Number	P value
20-30	12	0.01
30-40	32	
40-50	24	
50-60	6	

Table 1 shows that age group 20-30 years had 12, 30-40 years had 32, 40-50 years had 24 and 50-60 years had 6 patients.

**Table 2: Assessment of parameters in patients**

Parameters	Variables	Number	P value
Operation type	Breast conserving surgery	72	-
Operation type (axilla)	Axillary lymph node dissection	38	0.05
	Sentinel lymph node biopsy	24	
Histologic grade	1	22	0.02
	2	24	
	3	20	
	Unknown	6	

Table 2 shows that type of surgery was breast conserving done in all 72 patients. Axillary lymph node dissection was done in 38 and sentinel lymph node biopsy in 24 patients. Histologic grading was 1 in 22, 2 in 24, 3 in 20 and unknown in 6 patients. The difference was significant (P<0.05).



**Fig 1: Parameters in patients**

**Table 3: Treatment given to patients**

Treatment	Given	Number	P value
Chemotherapy	Done	42	0.04
	Not done	30	
Adjuvant radiotherapy	Done	50	0.01
	Not done	22	
Neoadjuvant chemotherapy	Done	48	0.02
	Not done	24	

Table 3 shows that treatment given was chemotherapy done in 42 and not done in 30 patients. Adjuvant radio-therapy was done in 50 and not done in 22,

neoadjuvant chemotherapy was performed in 48 and not in 24 patients. The difference was significant ( $P < 0.05$ ).

**Table 4: Assessment of outcome of treatment**

Outcome	Number	P value
Death	6	0.01
Distant metastasis + loco-regional	22	

Table 4 shows that death occurred in 6 and distant and loco-regional metastasis was seen in 22 patients. The difference was significant ( $p < 0.05$ ).

## Discussion

Breast cancer is the most common type of cancer among women in the US with the incidence rate of 12.5%. The risk of an individual dying from breast cancer is 1-in-35. At present, the chance of developing breast cancer over lifespan is 12% (1-in-8) in the United States[7]. Breast cancer is the most common type of cancer and the second leading cause of death. This disease is the primary cause of mortality among women aged 45–55 years, and is the second leading cause of cancer-induced death. The incidence of breast cancer is almost 1-in-8 women, requiring complete tissue removal, chemotherapy, radiotherapy, and hormone therapy most of the time[8]. Breast cancer is a type of tissue cancer that mainly involves inner layer of milk glands or lobules, and ducts (tiny tubes that carry the milk). The primary risk factors of cancer include age, high hormone level, race, economic status, and iodine deficiency in diet. Breast cancer is a multi-stage disease, in which viruses play a role in one stage of this pathogenic process. In general, viruses are involved with different cancer type[9]. The present study was conducted to assess clinical outcome of breast surgery patients. In present study we found that age group 20-30 years had 12, 30-40 years had 32, 40-50 years had 24 and 50-60 years had 6 patients. Gold et al[10] have shown that omission of appropriate adjuvant therapies can worsen the treatment outcome even in early breast cancer patients. Locoregional (operative) control of breast cancer remains the mainstay of treatment. Surgical treatment should allow the patient to be

involved in the decision-making process, with the surgeon providing information about all surgical options available. Definitive surgical management typically involves breast conservation (BCT) or mastectomy. Local excision alone is at times acceptable, usually in the setting of elderly or otherwise debilitated patients without adjuvant radiation. This decision must be carefully weighed and based on evaluation of tumor aggressiveness and comorbid conditions of the patient. We found that type of surgery was breast conserving done in all 72 patients. Axillary lymph node dissection was done in 38 and sentinel lymph node biopsy in 24 patients. Histologic grading was 1 in 22, 2 in 24, 3 in 20 and unknown in 6 patients.

Land et al[11] have reported that the patients with higher degree of co-morbidity had significantly lower rates of recurrences despite their increased risk of deaths.

We found that treatment given was chemotherapy done in 42 and not done in 30 patients. Adjuvant radiotherapy was done in 50 and not done in 22, neoadjuvant chemotherapy was performed in 48 and not in 24 patients.

The incidence of breast cancer is 1-in-9 women over lifespan. Breast cancer is among diseases with severe psychological impact, in which the thoughts of death and mastectomy cause fear and anxiety in the patient. A cancer patient goes through various psychological stages in coping with and diagnosing this disease. The world of a woman with cancer dramatically collapses in the blink of an eye. The patient becomes confused and her small hopes fade away to great disappointments. Nobody can deeply understand her feelings; while, she strongly needs support. Studies show that support is a vital and multi-dimensional need

that should frequently be provided to clients. Nurses and physicians usually prioritize physical support; whereas, psychological-mental supports are polled as more important than other things by such patients[12]. The shortcoming of the study is small sample size.

### Conclusion

Authors found that maximum patients existed between 30-40 years age group. Treatment given was breast conservative.

### References

1. Chao C, Page JH, Yang SJ, Rodriguez R, Huynh J, Chia VM. History of chronic comorbidity and risk of chemotherapy-induced febrile neutropenia in cancer patients not receiving G-CSF prophylaxis. *Ann Oncol* 2014; 25: 1821–1829.
2. Ahern TP, Lash TL, Thwin SS, Silliman RA. Impact of acquired comorbidities on all-cause mortality rates among older breast cancer survivors. *Med Care* 2009; 47: 73–79.
3. Berglund A, Wigertz A, Adolfsson J, Ahlgren J, Fornander T, Wärnberg F et al. Impact of comorbidity on management and mortality in women diagnosed with breast cancer. *Breast Cancer Res Treat* 2012; 135: 281–289.
4. Han J, Lee HB, Lee ES, Kang YJ, Kim Y, Choi J, Rhu J, Shin HC, Han W, Noh DY, Moon HG. The treatment outcomes and the use of adjuvant therapies in breast cancer patients with severe comorbidities. *PloS one*. 2017 ;12(3):e0173721.
5. Sogaard M, Thomsen RW, Bossen KS, Sorensen HT, Norgaard M. The impact of comorbidity on cancer survival: a review. *Clin Epidemiol* 2013; 5: 3–29.
6. Yancik R, Ganz PA, Varricchio CG, Conley B. Perspectives on comorbidity and cancer in older patients: approaches to expand the knowledge base. *J Clin Oncol* 2001; 19: 1147–1151.
7. Dehal A, Abbas A, Johna S. Comorbidity and outcomes after surgery among women with breast cancer: analysis of nationwide in-patient sample database. *Breast Cancer Res Treat* 2013; 139: 469–476.
8. Kiderlen M, de Glas NA, Bastiaannet E, Van de Water W, de Craen AJ, Guicherit OR et al. Impact of comorbidity on outcome of older breast cancer patients: A FOCUS cohort study. *Breast Cancer Res Treat* 2014; 145: 185–192.
9. Safaee A, Moghimi-Dehkordi B, Zeighami B, Tabatabaee HR, Pourhoseingholi MA. Predictors of quality of life in breast cancer patients under chemotherapy. *Indian Journal of Cancer*. 2008; 45(3):107–111.
10. Gold HT, Do HT, Dick AW. Correlates and effect of suboptimal radiotherapy in women with ductal carcinoma in situ or early invasive breast cancer. *Cancer* 2008; 113: 3108–3115.
11. Land LH, Dalton SO, Jensen MB, Ewertz M. Impact of comorbidity on mortality: A cohort study of 62,591 Danish women diagnosed with early breast cancer, 1990–2008. *Breast Cancer Res Treat* 2012; 131: 1013–1020.
12. Houterman S, Janssen-Heijnen ML, Verheij CD, Louwman WJ, Vreugdenhil G, van der Sangen MJ et al. Comorbidity has negligible impact on treatment and complications but influences survival in breast cancer patients. *Br J Cancer* 2004; 90: 2332–2337.

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