Original Research Paper

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PATHOLOGICAL NODAL PATTERN IN CARCINOMA BREAST PATIENTS

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ABSTRACT **OBJECTIVES:** To know the pathological nodal metastases in early operable breast cancer patients since numbers of involved lymph nodes are prognostic factor in carcinoma breast.

Methods: In this present study, bench dissection of Axillary nodes is done after surgery in 75 patients and nodal specimen sent separately for HPE.

RESULTS: In this study, lowest Lymph node dissected was 5, and highest lymph node dissected was 29. Average lymph node dissected is 12. 71 patients (96 %) were female and 4 patients (4%) were male. On analysis, 30 patients (40%) had N0 disease, 17 patients (22.7%) had N1 disease, 21 patients (28%) had N2 disease and 7 patients (9.3%) had N3 disease.

CONCLUSION : Even though 40% patients had N0 disease, still majority of patients (60%) had Nodal positive disease

KEYWORDS : Breast carcinoma, Histo-pathological parameters, Hormonal status, HER2 status, Triple negative cases

Introduction:

Breast cancer is the most commonly diagnosed cancer in female patients globally . Patients were presenting for treatment in late stages in the past. Now with increasing awareness, they are coming for treatment early. T(tumor), N(node), M(metastasis) classification is used now for staging in these patients. Lymph node metastasis is important prognostic factor and determines the need for adjuvant treatment like chemotherapy and Radiotherapy.

Materials and Methods.

Records of 75 Consecutive modified Radical Mastectomies were analyzed. These mastectomies were done for early operable breast cancer patients with mobile axillary lymph nodes or clinically node negative disease. Mastectomy after Neoadjuvant chemotherapy, Palliative Mastectomy and Mastectomy in Stage 4 patients were excluded.

After Mastectomy, careful Bench dissection of axillary nodes were done immediately after surgery by operating surgeon in the operation theatre itself with good light. With careful palpation and dissection of axillary fat, Breast tail, all palpable nodes were completely removed, put into the container with formalin and sent to the pathologist with proper labeling, history and requisition.

Results:

Age and sex distribution:

Breast Cancer occurs after age of 20 years. The incidence peaks in age of 50-60 years and then declines. 75% of Cancer occurs in the age of 40 to 70. One eighth of cancer (12%) occurs before 40 years and one eighth cancers (12%) occur after the age of 70. 95% of patients were female and 5% were male patients.

Table 1- Age group at presentation

AGE GROUPS	NUMBER	PERCENTAGE
<20	0	0
21-30	1	1.3
31-40	9	12
41-50	17	22.7
51-60	25	33.33
61-70	14	18.67
71-80	7	9.33
>80	2	2.6

Table 2- Sex ratio

Sex	Number	Percentage
Female	71	94.7
Male	4	5.3

Pathological Nodal pattern:

Highest number of lymph nodes dissected was 29 and Lowest number of lymph nodes was 5. Average number of lymph nodes dissected were 12

Table 3– No of Lymph Nodes Dissected

Nodes	Number
Highest	29
lowest	5
average	12

30 patients(40%) had node negative (N0)disease. 17 patients (22.7%) had 1-3 (N1) lymph node metastases. 21 patients (28%) had 4-10 (N2)(stage3 A or B) lymph node metastases. 7 patients (9.3%) had > 10 (N3) (Stage3C) lymph nodal metastases. (table-4)

Table4- Pathological Lymph Nodal Staging

N Stage	No of Involved nodes	No of Patients	Percentage
N Stage 0	0	30	40 %
N Stage 1	1-3	17	22.7 %
N Stage 2	4-10	21	28 %
N Stage 3	>10	7	9.3 %

17 patients out of 75 (22.7%) had Lympho vascular space invasion and 15 out of 17 patients had nodal metastases. 7 out of 21 N2 patients had Lympho-vascular space invasion and 5 out of 7 N3 patients had Lympho vascular space invasion.

Table 5 – Lympho vascular space invasion and Nodal Metastases

N Stage	No of patients with LVSI	Total No of Patients	Percentage of LVSI
N Stage 0	2	30	6.7%
N Stage 1	3	17	17.6%
N Stage 2	7	21	33.3%
N Stage 3	5	7	71 %

Discussion:

Breast cancer peaks in the age of 50 – 60 Years and three fourth of patients are 40-70 years old. Even though 40% present with N0 disease, still 60 % of patients had Node positive disease. Significant percentage of Patients (37.3%) had TNM stage 3 disease indicating locally advanced breast cancer with poor prognosis.

Significant percentage (22.7%)(17 out of 75)of patients had Lympho-vascular space invasion indicating poor prognosis. In this, 15 out of 15 patients with LVSI had nodal metastases indicating LVSI is the predictor of Nodal metastases.

This study shows that still 60% of our patients are presenting with late disease (22.7 % - stage 2 and 37.3% -stage 3 disease). So all of our

patients need health education, awareness regarding breast cancer and screening to detect the disease in early stage.

Conclusion:

Our patients need early detection to improve prognosis and survival by way of health education, awareness regarding breast cancer and screening.

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CONFLICT OF INTERESTS

Declare none

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