



Case Report

Histopathological variants of breast carcinoma

AG Lathishna¹, Karthi Priya. C^{1,*}¹Dept. of Pathology, Saveetha Medical College, Chennai, Tamil Nadu, India

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ABSTRACT

Introduction: A retrospective study was done to find out the variants of breast carcinoma along with the histopathological data in Saveetha medical college, Chennai.

Materials and Methods: 30 cases with the malignancy of breast carcinoma including the histopathological data were taken from pathology department of Saveetha medical college, Chennai and it includes a study period of 12 months.

Result: 30 operable malignant cases of breast carcinoma were treated in the surgery unit at saveetha medical college, Chennai, during a period of 12 months. It was revealed that 90% of the cases were of invasive ductal type and includes a median study period of 12 months with a median age group of 40-50 years.

Conclusion: Of the cases reviewed, invasive ductal type was found to be the most prevalent one. The most common age group in which the malignancy is diagnosed was found to be between 40-50 years. Unifocal tumors were found to have high probability than multifocal tumors.

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1. Introduction

The most common malignant tumor in women is the mammary carcinoma. It has an incidence of greater than or equal to 1,000,000 cases occurring worldwide annually. It accounts for one quarter of all cancer in females approximately and one of the most common neoplasm among humans.¹ Among Indian females, breast cancer has ranked number one with a rate as high as 25.8 per 1,00,000 women and mortality with the rate of 12.7 per 1,00,000 women.² It accounts for 25% to 32% of all female carcinoma in the metropolitan cities. That is, breast cancer is 1/4 of all female cancer cases. A statistical study done by ICMR has revealed that India had 14 lakh cancer patient said in 2016. Thus breast cancer is becoming more prevalent in incident as well as mortality.

Primarily, it arises from the inner lining epithelium of the lobules or the ducts. In this criteria, it is important to rule out whether the tumour is limited to the epithelium or invading the stroma and other areas to become an invasive

type. DCIS type is more common compared with the LCIS type.³

Breast carcinoma exhibits a wide scope of different immunohistochemical profiles, morphological features and histopathological subtypes that are clinically specific. The subtypes include both infiltrating and non infiltrating type,

The infiltrating types were listed below

1. Medullary – It accounts for less than 5% of invasive breast carcinom.
2. Lobular - It accounts for about 10% of the invasive type.
3. Ductal - About 80% of all breast carcinoma are of invasive ductal type.
4. Colloid - It accounts for less than 2% of all breast carcinomas.
5. Papillary - It includes different types such as invasive papillary, invasive micropapillary, intracystic / encapsulated/ encysted papillary and papillary ductal types.
6. Tubular – The prevalence is about 1 to 4% of all breast carcinomas.

* Corresponding author.

E-mail address: c.priya211@gmail.com (K. Priya. C).

- 7. Metaplastic – It constitutes about less than 1 % of all breast carcinoma.
- 8. Signet ring – Its prevalence is about 2 to 4.5% of all breast carcinomas.⁴

The non infiltrating types were listed below:

- 1. Intraductal – It constitutes 15 to 20 % of all breast carcinomas
- 2. Lobular – It s prevalence is about 20 % of all breast cancer.
- 3. Both intraductal and lobular – The incidences have been steadily increasing in recent decades.⁴

2. Materials and Methods

The case study includes 30 malignant cases of breast carcinoma along with the histopathological variants which were taken from the pathology department of Saveetha mededical college, Chennai and the study period includes 12 months.

Lymph node biopsy was done in all the 30 cases and the specimens where send for histopathological examination and study w as done to conclude the specific diagnosis among the variants. Based on the histological data, the size, site, number of lymph nodes involved, the subtypes of the carcinoma can be determined.⁵

3. Results

The parameters to be recorded include age group, tumor site, tumor focality, tumor location, lymph node invasion, vascular invasion, tumor grade and histological type.⁵

The estimated prevalence of tumor with unifocality is 93.3% and that of multifocality is 6.67%. Malignant tumors of grade I, II and III accounts for 3.34 %, 53.33% and 43.33 % respectively of the total cases with a high prevalence in late stages.

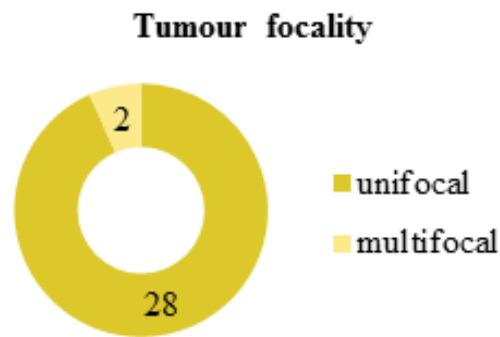


Fig. 2:

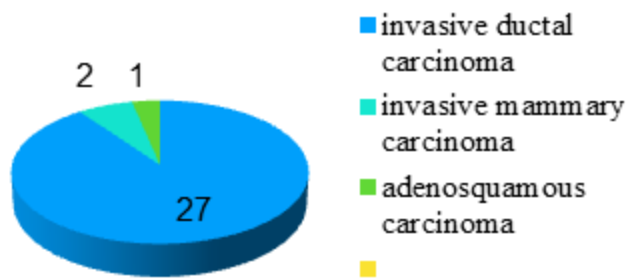


Fig. 3:

malignancy is most common in the age group between 40-50 years.

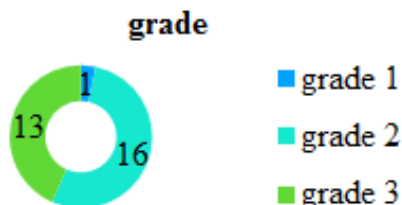


Fig. 1:

It has been identified with 30 patients that (90%) of cases were of invasive ductal type insisting its prevalence followed by invasive mammary carcinoma (2%) and adenosquamous carcinoma (1%).

Out of 30 cases analyse d the median age group was 47 with a significant high risk of breast carcinoma. The

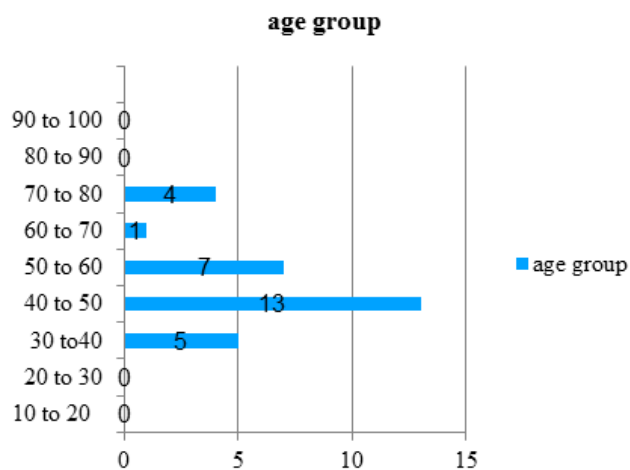


Fig. 4:

4. Discussion

The histological type of a tumor is of great use in providing clinical information and predict the prognosis. It is of crucial importance in patient management and screening programmes of breast carcinoma.^{6,7}

The current study includes 30 cases of breast malignancy which involves the age group between 30-80 years. The median age group of presentation is 47.^{8,9} The study shows that the incidence of breast carcinoma peaks in the age group of 40-50 years.¹⁰ A study by *Jitendra Singh Nigam et al*¹¹ states that the common presentation of age was in 4th -5th decade of life which is in concordance with this study.¹²⁻¹⁴

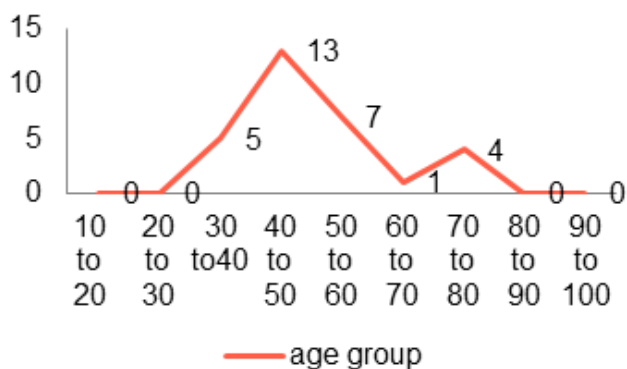


Fig. 5:

The study reveals that invasive ductal carcinoma has the highest and common occurrence of about 90% followed by invasive mammary carcinoma and adenosquamous carcinoma. *Jitendra Singh Nigam et al*¹¹ observed that infiltrating ductal carcinoma was the most common histopathological type followed by medullary and mucinous type accounting for 81.40%, 10.36% and 2.74% respectively. On comparing, the present study correlates with the findings of *Jitendra Singh Nigam et al*.

Of the reported cases, the most common complaints of breast lump was presented on left side (60%) than on right side (40%) which is similar to the findings stated by *Jitendra Singh Nigam et al*.¹¹ The study shows that tumor location is significantly high in upper outer quadrant (36.66%) followed by outer inner quadrant (23.33%) whereas the centre quadrant has a incidence of (20%). *Jitendra Singh Nigam et al*¹¹ observed that the involvement of tumor is more frequent in upper outer quadrant (49%) followed by central quadrant (18%). *Rachell E Ellsworth et al*¹⁵ observed that tumor location within the breast has a high frequency in upper outer quadrant satisfying the findings of present study.

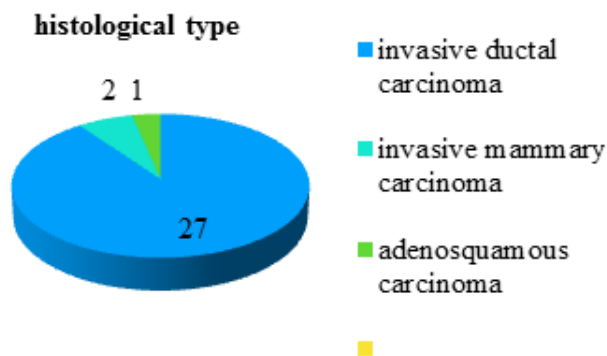


Fig. 6:

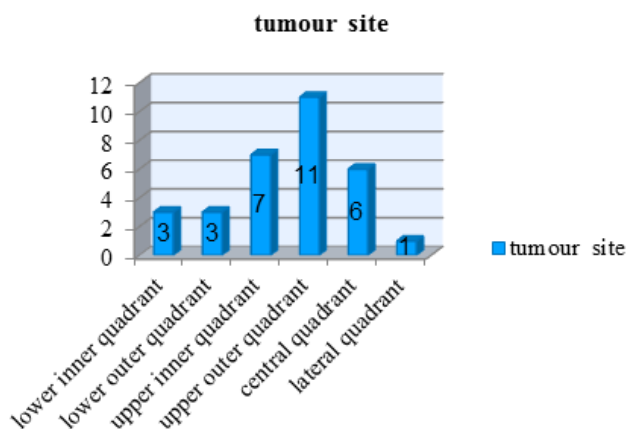


Fig. 7:

The study reveals that the grade II and grade III are more common grading accounting for about 53.33% and 42.33% of all cases respectively. A study by *Chu Z, Lin H, Huang R, Liang X, Zhan Q, Jiang J et al* states that early stages were more prevalence, which does not provide a similar result on comparison with this study.¹⁰

The study shows the most common pathological type T stage as stage T2(70%) followed by T3(20%), T1(6.67%) and T4(3.34%). *Jitendra Singh Nigam et al*¹¹ also observed that T2(54.68%) as the most common pathological stage causing malignancy followed by T1(44%), T3(19.53%) and T4(2.35%)¹¹. In the former T2 is followed by T3, but in the latter T2 is followed by T1. The present study is not satisfying the data given by *Jitendra Singh Nigam et al*¹¹ but it is in concordance with the observation by *Wani et al*.¹⁶

Parameters such as tumor size, site, focality, nodal involvement, histological staging, and tumor grading and appropriate techniques has to be used for early diagnosis. Early diagnosis of breast cancer is essential to reduce the

mortality rate and to increase the quality of life.

5. Conclusion

Based on the histological features and molecular characteristics breast carcinomas are classified. Each parameter influence the outcome and response to treatment. In our daily clinical practice, the clinical value of assigning the invasive types other

than histological types, histological grades and biomarkers tests have not yet been established. Although the variants has been diagnosed histopathologically, the prognosis and survival rate of the patients in later stages has not been answered.¹⁷

6. Conflict of Interest

None.

7. Source of Funding

None.

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Author biography

AG Lathishna MBBS 2nd Year Student

Karthi Priya. C Assistant Professor

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