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ENCAPSULATED PAPILLARY CARCINOMA OF BREAST - A SERIES OF RARE CASES.

Pathology

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ABSTRACT

Introduction: Encapsulated papillary carcinoma of breast is rare. It accounts for 0.5%-1% of all breast cancers .This lesion is a variant of papillary carcinoma. Diagnosis is difficult because of the presence of solid component within a cystic lesion of the breast. So core biopsy is preferred to ensure that sample is obtained from the solid component of the lesion .**Aims and Objectives:** To study the frequency ,age and histopathology features of Encapsulated papillary carcinoma of breast. **Material & Methods:** This study was done for period of 1 year from September 2023 to September 2024 in Department of Pathology ,Assam Medical College and Hospital, Dibrugarh. We received lumpectomy specimen and fixed them in 10% formalin, 4-5um thick sections were cut and stained by H and E for histopathology examination. **Results:** In this study 5 cases of Encapsulated papillary carcinoma breast were analyzed. In this study maximum number were between age group of 35- 50 years, mostly presenting with history of round shaped lump in the breast with or without nipple discharge. On sonography, presented as cystic mass with hyper vascular intracystic solid component, ill defined

KEYWORDS

Encapsulatedpapillarycarcinoma,ER,PR,Her2.

INTRODUCTION

Encapsulated Papillary Carcinoma (EPC) of breast is a rare breast tumor accounting for 0.5% to 1% of all breast cancers.[1]

EPC cases presents with diagnostic difficulties since it bears close resemblance to benign and malignant papillary breast lesions.

Upon clinically and radiological evaluation EPC presents mostly in post menopause females as a palpable lump usually in retroareolar region and it can be associated with or without bloody nipple discharge.On ultrasonography, tumor appears as a cystic lesion characterized by a solid component.

On microscope, the existing architecture is a mesh where branches of fibrovascular cores are lined with neoplastic epithelial cells.Peripherally, EPC is characterized by a capsule composed of fibers of varying thickness ,inside the capsule luminal epithelial cells proliferate in combination with fibrovascular cores.Myoepithelial layers is absent both in papillary structures and in the capsule.

Sometimes ductal carcinoma in situ (DCIS) and/or invasive ductal carcinoma can be associated with EPC when the stroma is infiltrated by neoplastic cells crossing fibrous capsule, invasion is present.[2]

AIMS AND OBJECTIVE

To study the frequency, age distribution and histopathology features of Encapsulated Papillary Carcinoma (EPC) of Breast.

MATERIALS AND METHODS

This study is a prospective case study of 5 cases done for a period of one year (September 2023 to September 2024) in the Department of Pathology, Assam Medical College.

Relevant clinical history, investigations, consent were obtained and correlated accordingly.

The samples were collected from both lumpectomy and mastectomy, fixed them in 10% formalin, 4-5µm thick sections were cut and stained by H & E for histopathology examination under microscope.

DISCUSSION

Similar study done by Leena et al,3 papillary carcinoma of breast occurs mostly in female, post menopausal period and the mean age of diagnosis is 63-67 years but in our study it has shifted to age group 45-55 years, only one case was 63 years old.

In the study by Aikaterini Athanasiou et al,2 Core needle biopsy can indicate the nature of papillary lesions as benign or malignant but it cannot distinguish between invasive and non-invasive carcinoma. Mammography evaluation of EPC appears well defined round to oval well circumscribed mass, non-calcified contains hemorrhagic and cystic component.[4]

The results were correlated with clinical presentation and radio logical findings.

CONCLUSIONS

Encapsulated Papillary Carcinoma (EPC) of breast has a good prognosis.

It is recommended that meticulous investigation should be performed regarding high grade and invasion as the stage of the tumor and selected treatment will be decided based on these elements.

On the whole, the behavior of EPC is very good with scarce local relapse and few distant metastasis.

Specifically, this good prognosis results from slow growth nature of the tumor with 10 years survival reaching about 100% and 10 years disease free survival.

RESULTS

Serial Number	Age	Location	History	Gross (cm)	Hormone Receptor Status
Case 1	38 years	Left Breast	Painless Lump	3 x 3 x 3	ER- positive, PR- positive, Her2neu - negative
Case 2	47 years	Left Breast	Painless Lump	4 x 4 x 3 solid cystic	ER- positive, PR- positive, Her2neu - negative
Case 3	51 years	Right Breast	Painless Lump + Nipple Discharge	5 x 2 x 2	Not done
Case 4	53 years	Left Breast	Painless Lump	2 x 1 x1 solid cystic	ER- positive, PR- positive, Her2neu - positive
Case 5	63 years	Right Breast	Painless Lump + Nipple Discharge + Retraction	6 x 5 x 2	ER- positive, PR- positive, Her2neu - negative

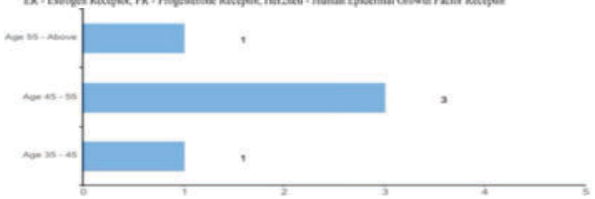

Figure A-Graph

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Figure B-Frequency Of Different Cases.

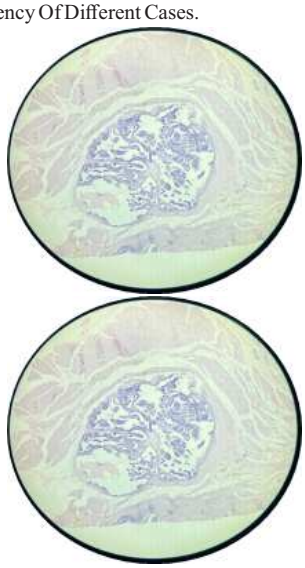

Figure A, B Histological Findings

Figure C- Gross Picture.

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