

# A case of Intracystic Invasive Papillary Carcinoma of male Breast

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## ABSTRACT

Male Breast cancer is a rare disease and the incidence is 1% of all the breast cancer. Even in females, invasive papillary carcinoma of the breast is a rare morphological type. It has favorable prognosis as compared to other morphological types. We report a case of intracystic papillary carcinoma with invasion (invasive papillary carcinoma) in 50 yrs old male with metastasis to left axillary lymph node.

**KEY WORDS :** Male breast cancer, invasive papillary carcinoma.

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## INTRODUCTION

Male breast cancer is a rare disease and the incidence is 1% of all the breast cancers. Intracystic papillary breast carcinoma is an extremely rare condition in men and represents only 5-7.5% of all male breast carcinomas <sup>(1,2)</sup>. Histologically, papillary carcinoma may be intraductal or intracystic and each type can be non-invasive or invasive, a distinction is possible only on thorough histopathological examination <sup>(3)</sup>. Unlike invasive ductal carcinoma and NOS type, the prognosis of papillary carcinoma is extremely good, even in tumors showing stromal invasion<sup>(4)</sup>. Hence accurate diagnosis of this subtype is essential.

## CASE REPORT

50 yrs male presented with a lump in the central quadrant of left breast since 3 yrs and left axillary swelling. On examination the lump is 5x5cms, nodular, mobile, firm to hard and not fixed to skin or underlying structures. There was nipple retraction and left side axillary lymph node measuring 3x2 cms, firm in consistency. With clinical suspicion of carcinoma of breast, the patient underwent modified radical mastectomy.

On gross examination three soft tissue bits are received. Large soft tissue bit with skin and nipple attached measures 9x6x2 cm. Nipple retraction was present. On cut section, solid irregular grey white area of tumor mass with papillary architecture measuring 5x3cms is noted adjacent to cystic areas measuring 2x2cms each. Typical papillary structures

are noted inside these cystic spaces. Axillary nodal mass measures 5x4x2 cms, on cut section capsulated with few cysts and the papillary architecture is noted along with few areas of hemorrhage. Other soft tissue bit contains mainly of adipose tissue of 4x4x1cms, with two lymph nodes identified and cut section reveals grey white.

Multiple sections were taken and examined. Microscopical examination from cystic areas reveal multiple branching papillae lined by single to multiple layer of cuboidal to columnar cells with moderate eosinophilic cytoplasm and hyperchromatic nuclei with prominent nucleoli. Occasional mitotic activity is seen. The grey white area below the cysts also shows papillary and solid architecture with similar nuclear features. The sheets of cells are separated and surrounded by thin fibrocollagenous septa. Increased vascularity is seen in tumor mass. Sections from the axillary lymph node show a well defined capsule along with tumor of similar morphology as in the breast and sections from two other lymph nodes do not show any infiltration.

## DISCUSSION

Male breast cancer is infrequent and represents less than one percent in men <sup>(2)</sup>. Papillary carcinomas, both noninvasive and invasive, constitute one to two percent of breast carcinoma in females. However, papillary carcinomas account for slightly greater proportion of male breast cancers <sup>(4)</sup>. The clinical presentation of male breast cancer is similar to that in females, but median age of presentation is later (60 vs. 53 yrs) <sup>(5)</sup> and mostly present with palpable mass or



Figure: 1 A 50 yrs male with lump in left breast Papillary architecture



Figure: 2 Axillary lymph node showing with axillary lymph node



Figure: 3 Cut section of breast mass showing papillae

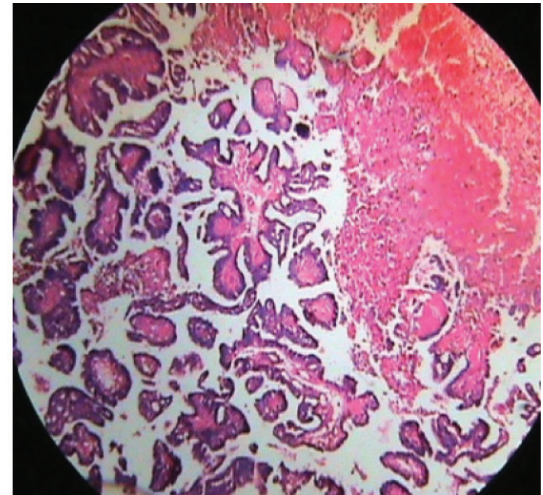


Figure: 4 Histopathology showing typical papillary projections into two cysts below with areas of necrosis and haemorrhage the nipple.

lump<sup>(6)</sup>. Our case the age was 50 yrs with palpable lump. Aetiology remains unclear, but is related to the cumulative lifetime exposure to oestrogen<sup>(7)</sup>. Histologically, papillary carcinoma is divided into intraductal and intracystic; further subdivided into invasive and noninvasive. The intraductal type is more common than intracystic papillary carcinoma. The clinical presentation is similar for both types

In majority of cases, the tumor cell nuclei are intermediate grade and histologic grade of the tumor is 2(modified Scarff-Bloom-Richardson grading system). Extension of tumor into breast parenchyma and fat beyond the zone of reactive changes is the most reliable histological criterion for invasion<sup>(8)</sup>. In invasive tumors the prognosis depends on the size of the invasive component and histological grade. Even patients

with nodal metastasis , the prognosis is said to be favourable<sup>(8)</sup>. Arora et al reported two cases of invasive papillary male breast carcinoma<sup>(8)</sup>. We report a rare case of intracystic papillary carcinoma with invasion of left breast and metastatic deposits in the left axillary lymph node.

## CONCLUSION

Intracystic invasive papillary breast carcinoma is extremely rare in males. It carries a favourable prognosis compared to other histological types of breast carcinomas. Intracystic papillary carcinoma is infrequent and careful histopathological examination is required since it carries better prognosis.

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