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Case Study

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INVASIVE PAPILLARY DUCTAL CARCINOMA OF THE BREAST: A CASE REPORT

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ABSTRACT

The general rate of invasive papillary carcinoma (IPC) is uncommon, representing for less than 1-2 % of invasive breast cancers. They are most generally observed in postmenposal females and uncommon in males.Invasive papillary carcinomas are low grade tumors originating from large or dilated ducts. They are make out of all around outlined solid nodules of monotones neoplastic cell separated by network of fibrovascular cores, IPC is a remarkable sort of breast cancer and regarded of whether it is in-situ or invasive, it has brilliant prognosis. We presenting two cases of invasive papillary carcinoma in male and female; A case of 55years postmenoposal female who presented with history of left breast mass, which this mass notice after trauma same site for 1year ago the mass gradually increase in size no tenderness, no signs of inflammation. Excisional biopsy was performed and specimen was histopathology diagnosed as invasive papillary carcinoma, left MRM was performed and histopathology diagnosis confirmed and without residual tumor seen in submitted slides and all submitted lymph nodes were free of tumor infiltration (0/14). IHC show ER and PR negative with HER-2 positive. The second case 70 years male presented with right breast mass and history of post-trauma since one year back with gradual increase in size, right radical mastectomy done and histopathology diagnosed as invasive papillary carcinoma,IHC was done ER and PR positive with HER2- negative.

KEYWORDS: invasive papillary carcinoma, Lowe grade tumors, excellent prognosis.

INTRODUCTION

Breast cancer is the commonest malignancy of females in Yemen and all over the world and the second leading cause of death due to cancer among females.[1-3]

Papillary lesions of the breast have assessed in wide range going from benign intra ductal papilloma (with or without atypia) to papillary carcinoma in situ and invasive papillary carcinoma.[4] Among this group of lesions, solid papillary carcinoma(SPC) establishes an unmistakable element clinically and morphologically. Solid papillary carcinoma are Low grade tumors originating from large or dilated ducts. They are made out of all around encompassed solid nodules of monotonous neoplastic cells separated by network of fibro vascular cores.[5-8]

These lesions usually present as subareolar mass and /or nipple discharge, most frequently in elderly women and represent less than 2% of breast carcinomas in females.[9]

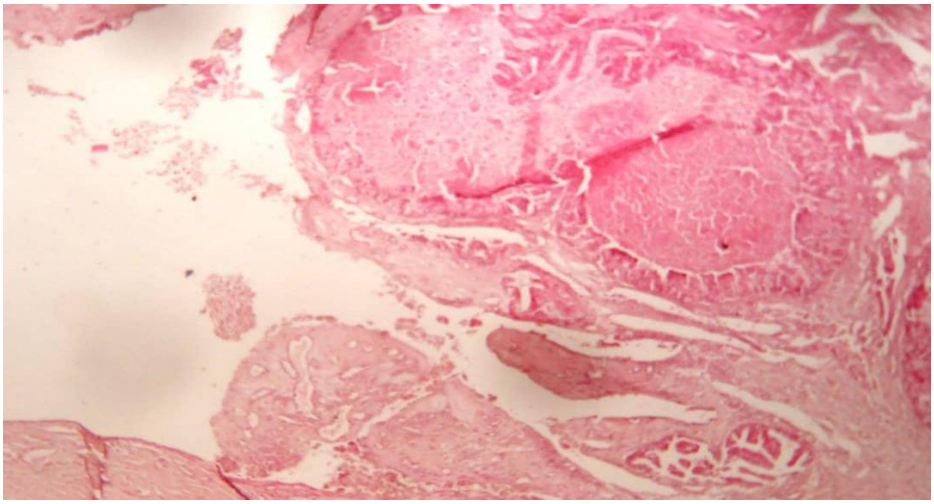
It is predominately seen in postmenopausal women.[10] Breast cancer in male is rare it account for 0.6 of all breast carcinoma and less than 1% of all malignancy in men.[11]

CASE PRESENTATION

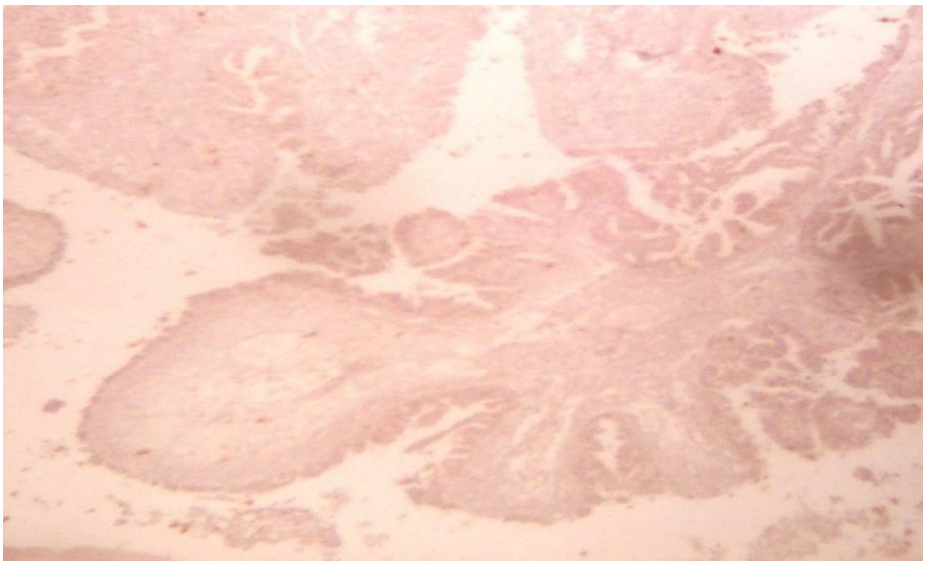
Case1:A 55years postmenopsal female who presented with history of left breast mass, which noticed after trauma in same site for 1year ago the mass gradually increase in size without tenderness or signs of inflammation.

ultrasonography revealed heterogeneously hypoechoic mass measure 4.5cmx5.1cm.

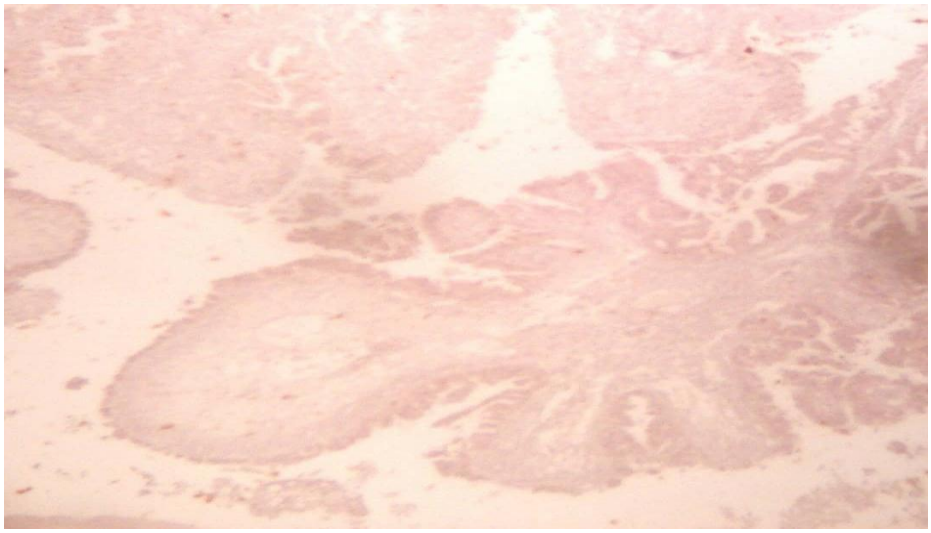
Tru cut biopsy was done for histopathology shows atypical hyperplasia, DCIS cannot excluded. excision biopsy was performed and specimen was histopathology diagnosed as invasive papillary carcinoma, left MRM was performed and histopathology diagnosed as no residual tumor seen in submitted slides and all submitted lymph nodes are free of tumor (0/14). IHC done ER and PR negative with HER-2 positive.(microphotograph-1,2,3).



Microphotograph-1: Papillary structure aligned around fibrovescular core(H&E,10X).

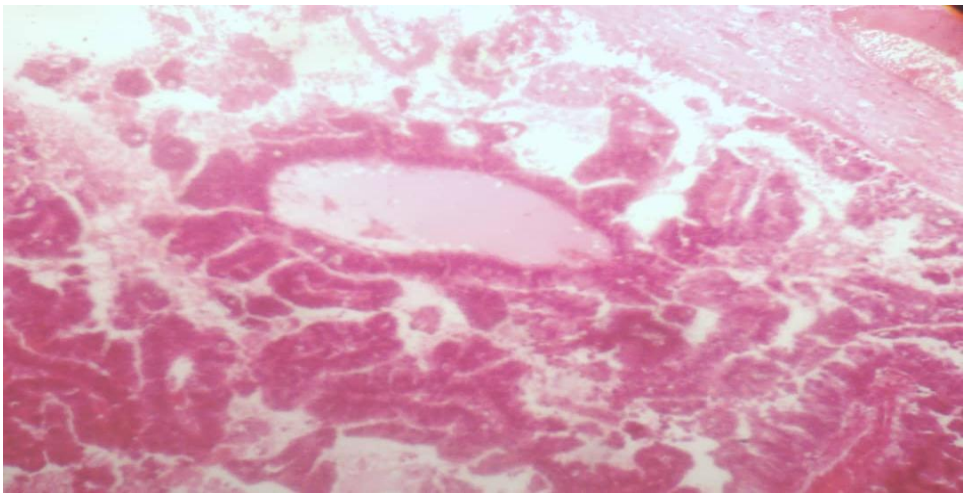


Microphotogrph-2: Immunihistochemstery show ER negativity.

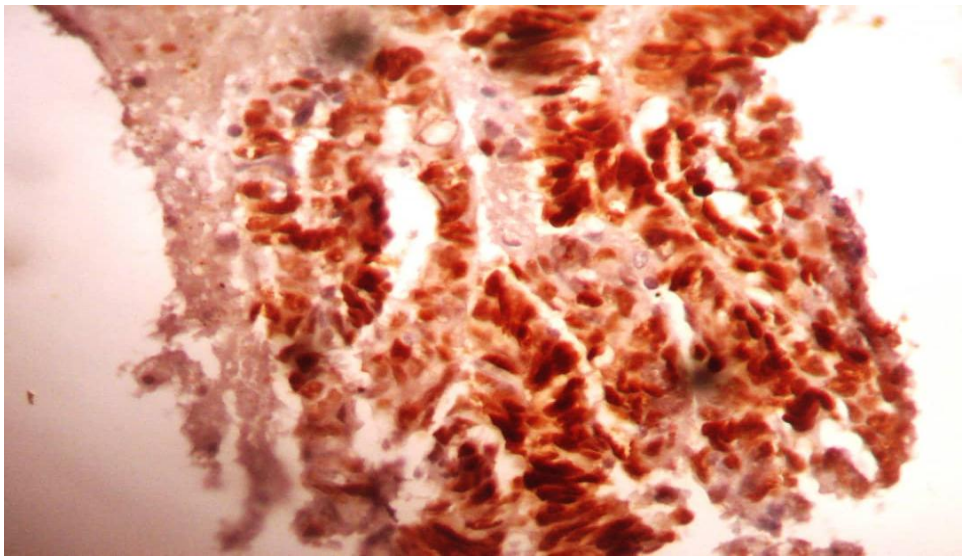


Microphotograph 3: Immunihisochemistry show PR negativity.

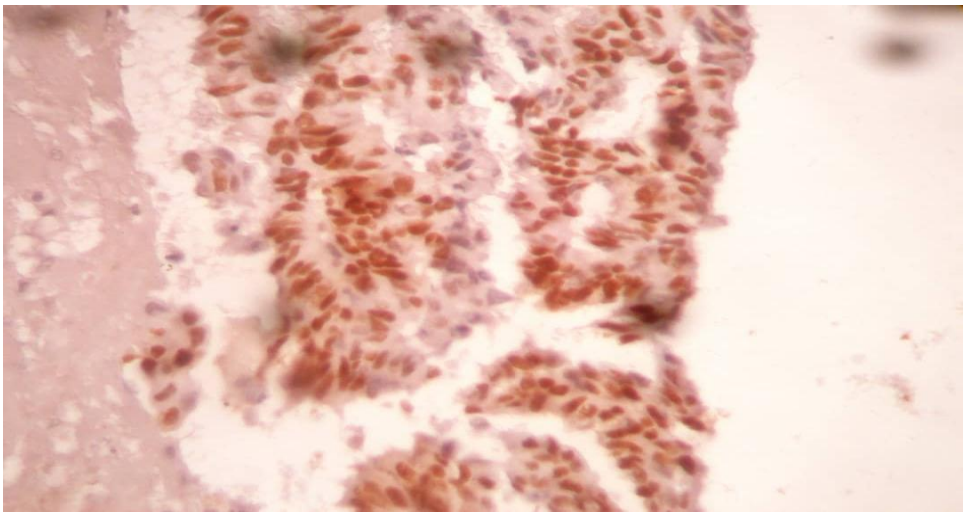
Case 2: A 70 years male presented with history of right breast mass post-trauma before one year with increase gradually in size, right radical mastectomy done and histopathology diagnosed as invasive papillary carcinoma, IHC was done ER and PR positive with HER-2 negative. (Microphotograph 4,5,6,7).



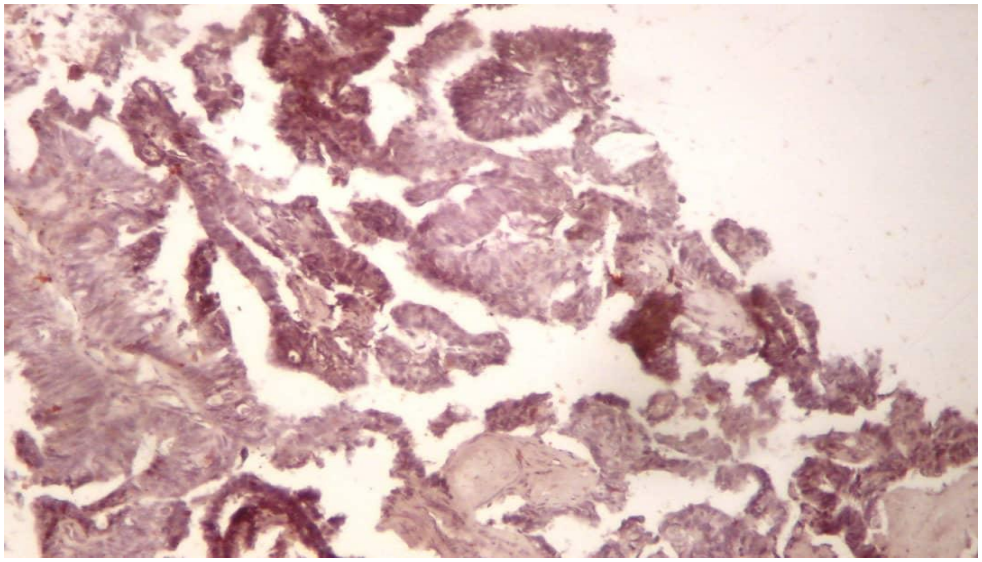
Microphotograph 4: Papillary arrangement of neoplastic cells within cyst like space (Hematoxylene and Eosion,40X).



Microphotograph 5: Immunihistochemistry showing ER Positivity.



Microphotograph 6: Immunihisochemistery showing PR Positivity.



Microphotograph 7: Immunihistochemstry, HER-2 Negative

DISCUSSION

Invasive papillary carcinoma of breast cancer are rare, accounting for less than 1% of invasive breast cancer. They occur most frequently in postmenopausal women in the 6th to 8th decade of life and non white women. IPC in man is usually reported among those of an older age group (67to 84 years).[12] More than 75% of the cases include a ductal carcinoma in situ (DCIS) component[10-13]. Lymph node involvement and distant metastasis are uncommon and has favorable prognosis.[13,14] All malignant papillary proliferation of breast lack an intact myoepithelial cell layer (MCL) within the papilla or at the periphery of the tumor, which is an important feature allowing distinction from benign intraductal papilloma.[15] In assessing the presence of complete myoepithelial layer,P63 is often used as an adjunct to assess the presences and distribution of myoepithelial cells in papillary neoplasm of the breast.[16] Other immunohistochemical markers, such as estrogen/ progesterone receptor,C-erbB2, and Ki-67, provide prognostic information.[17] Papillary breast carcinoma is usually estrogen/progesterone receptor-positive and C-erB2 negative as demonstrated by immunohistochemical results in male present case.[18] These molecular expression correspond with luminal A-like subtype, which is associated with a lower recurrence rate and longer disease –free interval.[17] Variable management strategies are considered when dealing with this rare form of breast cancer. Treatment options for the breast can involve breast conserving surgery in the form of wide local excision, with or without adjuvant RT, or mastectomy.[19-21]

Though there is no definite guidelines for management of IPC in male,Grabowski et al. suggested that surgery is the mainstay of treatment, which can be either conversion or mastectomy. Since the prognosis of IPC is excellent with low locoreginal and distant recurrence rates, mastectomy is usually not necessary,unless it is technically unavoidable.[22] There is controversy regarding axillary lymph node clearance. Sentinel node biopsy may be an excellent alternative to full axillary dissection in patients with IPC and associated invasive carcinoma.[23] There is no clear indication in adjuvant chemotherapy even in hormone responsive cases. The addition of hormonal treatment does not appear to have impacted the outcome.[22] Recently Fayanju et al. reviewed that patient having DCIS or micro invasion disease in association with IPC were more likely to receive radiotherapy and tamoxifen.[24]

CONCLUSION

We highlight this rare variant of invasive breast cancer presenting with unusually large tumor size. Even though it commonly occurs in postmenopausal woman, it can rarely appear in perimenopausal age group.

Invasive papillary carcinoma is very rare entity in male but it has favorable prognosis. Clinical and radiological features are not specific and there is chance of under diagnosis in aspiration cytology. Therefore correct histopathological diagnosis and invasion status is required. The mainstay of treatment is surgical resection with adjuvant hormonal therapy. Accurate diagnosis of papillary lesion remains challenging only by *hematoxylin and eosin stain*, IHC for myoepithelial cells is a useful diagnostic tool in differentiating benign from malignant lesion with implication on management. Regardless of its invasive nature, it carriers an excellent prognosis and thus, awareness of the entity is important to avoid over treatment.

Adjuvant therapy is still controversial and prognosis is excellent with 10-years survival rate for IPC is 100%,the recurrence –free survival rate is 96% and77% at two and ten years, respectively.

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