

# Intracystic Papillary Carcinoma of Breast - A Case Report

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**Abstract:** *Intracystic papillary carcinoma is a rare malignant tumor of breast. It occurs communally in postmenopausal women. Clinically it can be asymptomatic or manifest by a breast mass or a nipple discharge. On imaging intracystic papillary carcinoma has usually benign features. Pathological diagnosis can be difficult at classical histological examination and identification of myoepithelial cells layer by immunohistochemical study can be useful. In majority of cases of pure intracystic papillary carcinoma, conservative treatment is possible. Adjuvant therapy is still controversial and prognosis is excellent. I report one case of Intracystic Papillary Carcinoma diagnosed cytologically and further confirmed by histopathological examination.*

**Keywords:** Pushing borders, Delicate Papillary fornd, Finger like projections, Retracted nipple, Excellent Prognosis

## 1. Introduction

- Intracystic papillary carcinoma is an uncommon breast disease, constituting **0.5% to 1%** of all breast cancer {1}. Papillary carcinoma are classified histologically into **intra ductal** and **intra cystic papillary carcinoma** {2}.
- Intracystic papillary carcinomas are further divided into **pure form** or associated to a ductal carcinoma in situ (**DCIS**) or invasive carcinoma. {1}
- Clinical and radiological manifestations of IPC are not specific. On USG, it can be a pure cyst, a mixed image or a solid mass.
- On **F. N. A. C.** no formal cytological criteria exist to distinguish Intracystic Papillary Carcinoma from benign lesion.
- The recent use of immunohistochemical identification of myoepithelial cells (MEC) of cyst seems to enhance pathological diagnosis and its influence on prognosis is to be determined.
- Therapeutic management of IPC is also still controversial. **Endocrine therapy** and **radiation** are used by many centers but evidence of their role in prognosis improvement is still lacking.

## 2. Case Report

- A **52 year** old woman presented with a **lump** in **upper internal quadrant** of right breast, without pain or nipple discharge.
- Physical examination** reveals a **6x5cm** mass, non-well defined, fixed and firm, **non-painful** and without skin changes, hard in consistency. Nipple was **retracted**.
- USG** showed acystic mass measuring **27mm**, with a posterior acoustic enhancement and a little solid component. Surgical excision was performed.

## 3. Gross & USG Finding

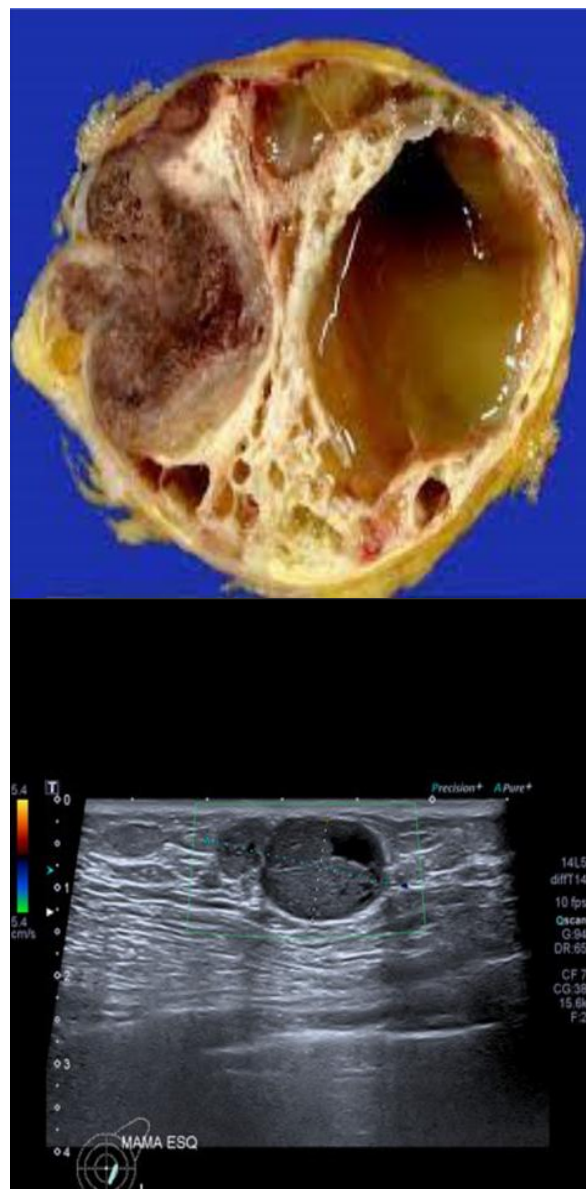


Image 1: CYSTIC SPACE SEEN ON GROSS AS WELL AS ON USG

Volume 12 Issue 4, April 2023

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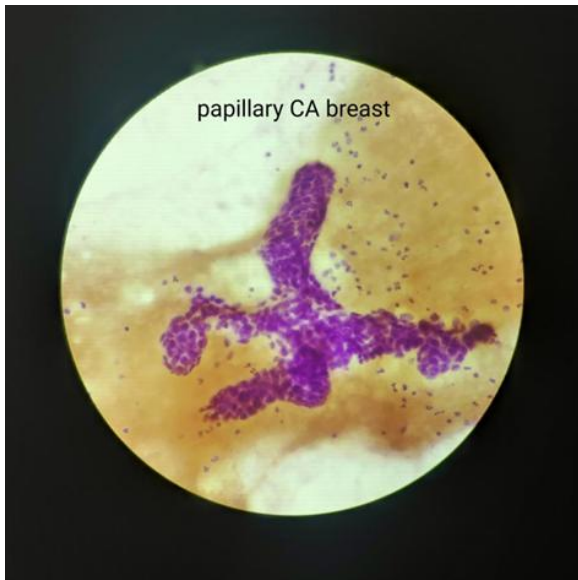


Image Number 2: F. N. A. C. Finding of Papillary Carcinoma of Breast

#### 4. Histological Examination

##### Reveals-

- **Papillary tumour with pushing border**, within cystically dilated ducts, surrounded by thick fibrous capsule.
- **Delicate papillary fronds** with fibrovascular core lined by cuboidal to columnar epithelium with low grade nuclear atypia.
- Low mitotic figures are seen.
- Complete **lack of myoepithelial cells** along the papillae and around the periphery of tumour.

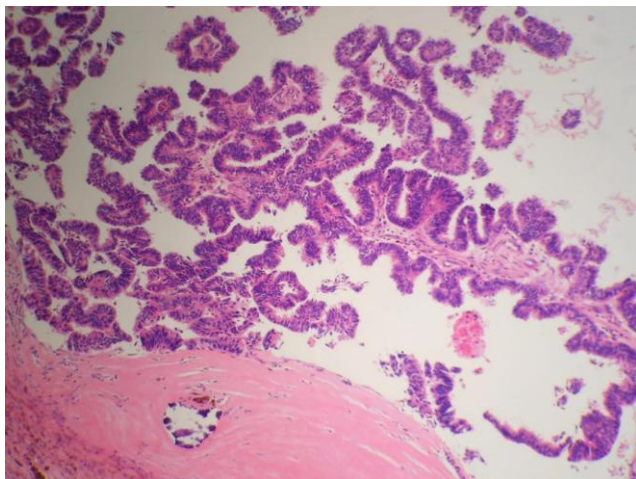


Image Number 3: Histological Finding of Papillary Carcinoma of Breast

#### 5. Discussion

- Papillary carcinoma of breast is a rare malignant tumor, consisting **1-2%** of all breast cancer in women.
- It is distinguished by the papillary structural design: proliferation characterized by **finger like projections** or fronds composed of central **fibrovascular core** covered

by epithelium, **without myoepithelial cell** layer, showing it is a malignant papillary lesion.

- It can be divided into-

##### 1) Invasive form

##### 2) Non invasive form

- Non invasive papillary carcinomas are further divided into two sub types - (a) a **diffused form**, the papillary variant of DCIS
- (b) A **localised form**, intracystic papillary carcinoma
- The intracystic papillary carcinoma more frequently found among **postmenopausal women** with an average age **between 55yrs to 67yrs**

Its cases are also present in male population and it is 2nd most common breast cancer in males. {6-8} Clinically it present as benign like mass. The tumour can also manifest with a bloody nipple discharge and in some cases it can be asymptomatic and revealed by systematic mammography. Axillary nodes are infrequent. [4, 6]

- At **mammography** intracystic papillary carcinoma appear as a **round, ovoid or lobulated** opacity. The margins of the mass are usually circumscribed, but may be obscured or indistinct by places testifying inflammation or invasion. [4, 6]
- On USG the lesion have an indistinct border or **microlobation**, which might suggest that it is malignancy.
- Size of intracystic vegetation, the heterogenous echotexture and irregular border of solid papillary mass are criteria for malignancy suspicion.
- The combination of residual palpable mass and a frankly bloody aspirate at the fine needle aspiration is strongly indicator of carcinoma.
- The surgical excision of the patient is performed because of patient's age and the presence of solid component.
- Excisional biopsy is necessary because IPC is more difficult to diagnose than common breast cancer preoperatively. F. N. A. C. and core needle biopsy is not sufficient most of the time.
- Identification of myoepithelial cell layers essentially by IHC analysis has become a key feature in distinguishing benign from malignant and in situ from invasive papillary lesion of breast [14, 15].
- In case of IPC there is complete lack of myoepithelial layers both in the proliferating intraluminal component of the lesion and in the basal layer at the periphery, a situation similar to invasive papillary carcinoma, but the **fibrous capsule** surround it, so many author recently described IPC as an encapsulated low grade invasive carcinoma and accept it as a borderline lesion in progression from insitu to invasive breast carcinoma. [7, 13, 16]
- Many case reports and retrospective studies shows excellent prognosis with conservative surgery without axillary dissection in IPC not associated to DCIS or micro invasive lesion [1, 17, 18]

- Sentinel node biopsy may be an excellent alternative to full axillary dissections in patients with IPC and associated invasive carcinoma. [1]
- Even if IPC is associated to breast DCIS or invasion, its prognosis is still excellent when treatment decision are tailored to associated pathology. [18]

## 6. Conclusion

- Intracystic papillary carcinoma is **rare** breast malignancy, with an **excellent prognosis** in its pure form.
- Suspected at sonography in front of cyst with internal solid component, occurred to post menopausal women, it is confirmed by histopathology after surgical excision.
- The mainstay of treatment is **surgical resection** with adjuvant therapy if associated with DCIS or invasive carcinoma.

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