Case 10

31 year old woman underwent excision biopsy of a left breast lump.
Diagnosis

Left breast lump ~

*Encapsulated papillary carcinoma and papillary ductal carcinoma in situ (intraductal papillary carcinoma)*
Intraductal papillary carcinoma

- Malignant non-invasive neoplastic epithelial proliferation with papillary architecture, occurring within the lumen of the ductal-lobular system.

- Synonyms:
  - Papillary DCIS.
  - Papillary carcinoma, non-invasive.

- Rare lesion in its pure form.
Encapsulated papillary carcinoma

- Variant of papillary carcinoma.
- Characterised by fine fibrovascular cores covered by low or intermediate nuclear grade neoplastic epithelial cells.
- Surrounded by a fibrous capsule.
- Usually no myoepithelial cells within papillae or at the periphery of the lesion.
- Synonyms:
  - Intracystic papillary carcinoma, encysted papillary carcinoma, intracystic carcinoma NOS.
# Encapsulated papillary carcinoma vs intraductal papillary carcinoma

<table>
<thead>
<tr>
<th>Histological feature</th>
<th>Encapsulated papillary carcinoma</th>
<th>Intraductal papillary carcinoma (Papillary DCIS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning magnification</td>
<td>Marked distension of affected duct with encapsulated solid-cystic mass</td>
<td>No mass-like distension of affected ducts</td>
</tr>
</tbody>
</table>
| Myoepithelial cells | Absent along the distended duct wall  
Absent along the fibrovascular cores of papillae | Present along the duct wall  
Absent/diminished along the fibrovascular cores of papillae |
| Other DCIS patterns | May or may not be present in surrounding breast | Usually present |
Encapsulated papillary carcinoma

• Evolving concepts:
  • Minimally invasive, low-grade or indolent form of invasive carcinoma rather than an in situ lesion.
  • Carcinoma ‘in transition’ between in situ and invasive carcinoma.
  • Currently still regarded as Tis disease by WHO.

• Diagnosis of invasion:
  • Neoplastic epithelial elements infiltrate beyond the fibrous capsule.
  • Need to distinguish from entrapped epithelial nests in fibrous capsule, epithelial displacement in biopsy site.
Encapsulated papillary carcinoma

• Prognosis and predictive factors:
  • Staging is controversial, without universal agreement.
  • If conventional invasive carcinoma is present, staging is accomplished based on the size of the invasive component.
  • Consensus by WHO working group is to regard encapsulated papillary carcinoma as T\text{is} disease.

High-grade encapsulated papillary carcinoma of the breast: an under-recognized entity.