

# Breast Pathology

Done By: **Roa Alsajjan**

Notes: **Pathology Team:**

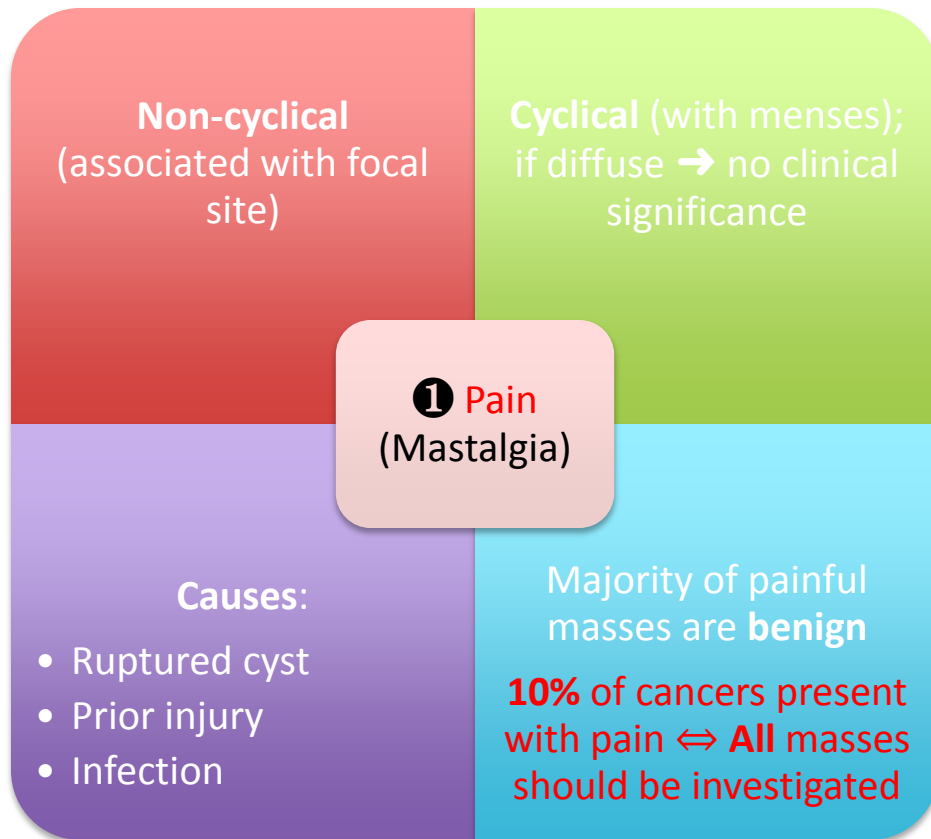
Nourhan Al-Shamma'

Norah Al-Saif

# Notes

- Red stars: Dr. Sufia said it's MCQ
- Red: super IMPORTANT
- Light blue: additional notes from the doctor
- Dark blue: I personally think it's important

# Breast Pathology: Clinical Presentation



## 2 Palpable Masses

## 3 Nipple Discharge

- Milky: not associated with malignancy
- Serous or bloody: associated with benign, and **rarely** malignancy

## Carcinoma Clinical Presentation

Palpable mass

Mammographic  
density

Mammographic  
calcifications

# Risk Factors

## Age

- Highest in postmenopausal women; average age = 64yrs; rare before 25 yrs
- 70% after 55 yrs

## Age at Menarche

- Younger = ↑ risk (each 2 yrs delay = 10% ↓ in risk)

## First Live birth

- **Earlier** = ↓ risk; nulliparity = ↑ risk; full term pregnancy before 20yrs = 1/2 risk after 35 yrs/nulliparous

## First Degree relative with Breast Cancer

- **mother, sister, or daughter** = x1.5 to 2.5; risk ↑ with number of affected 1st degree relatives

## Breast Biopsy

- Atypical hyperplasia = ↑ risk

## Race

- Lower incidence in African American women

## Estrogen Exposure

- **Later onset of menopause** = ↑ risk; menopause at 55yrs = x2 the risk before 45yrs
- **Hormone replacement** = ↑ risk

## Radiation exposure

## Women who have had a breast cancer

- 10-fold increased risk of developing 2nd primary breast cancer

## Geographic influence

- **Western industrialized countries > developing countries**

## Diet

- Fatty diet

## Obesity

## Exercise

- Might ↓ risk

## Environmental toxins e.g. pesticides

## Tobacco

- Not associated with breast cancer; associated with development of subareolar abscess or peri-ductal mastitis

## Breast-Feeding

- **Longer duration** = ↓ risk

# Risk Factors

## Major Risk Factors

Hormonal (majority of sporadic cases)

Genetic (family history/ germ-line mutations )

Gender

Age at menarche and menopause

Reproductive history

Breast-feeding

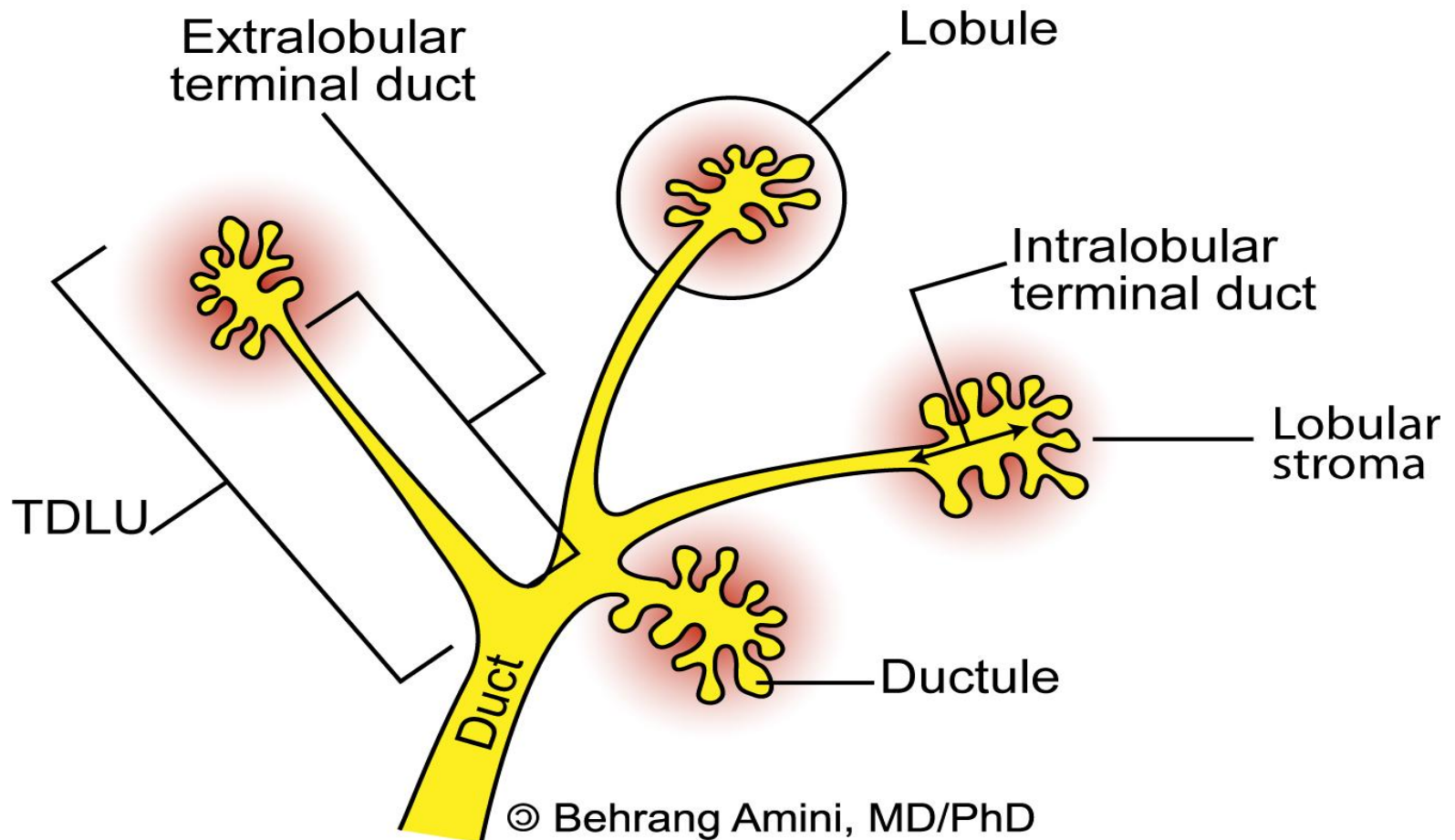
Exogenous estrogens

Majority occur in postmenopausal women

13% of cases have a family history of breast cancer in a 1<sup>st</sup> degree relative

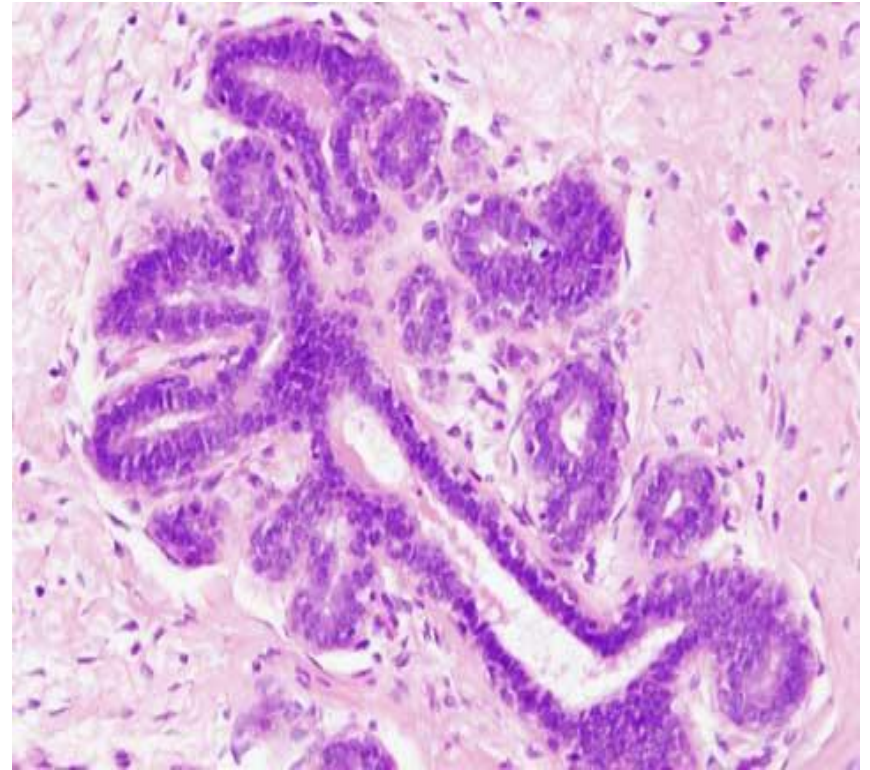
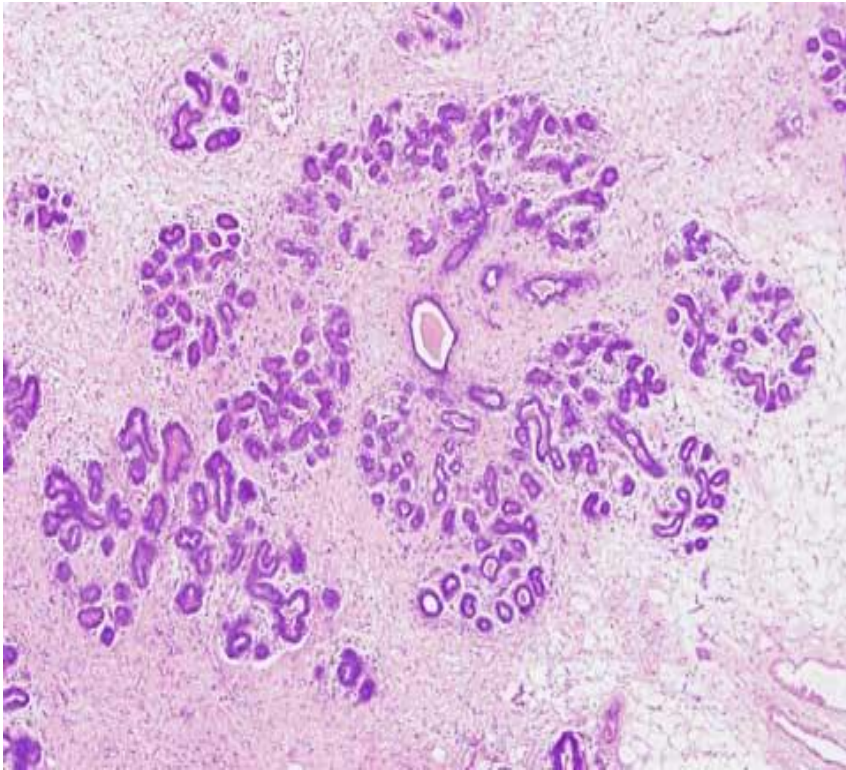
25% of familial (3% of all breast cancers) are due to BRCA1 & BRCA2 (2 highly penetrant autosomal-dominant genes)

# Normal TDLU★ structure



★ Terminal Ductal Lobular Unit

# Normal TDLU



# Benign Epithelial Lesions

- A. Non proliferative breast changes
- B. Proliferative breast disease

Without atypia:

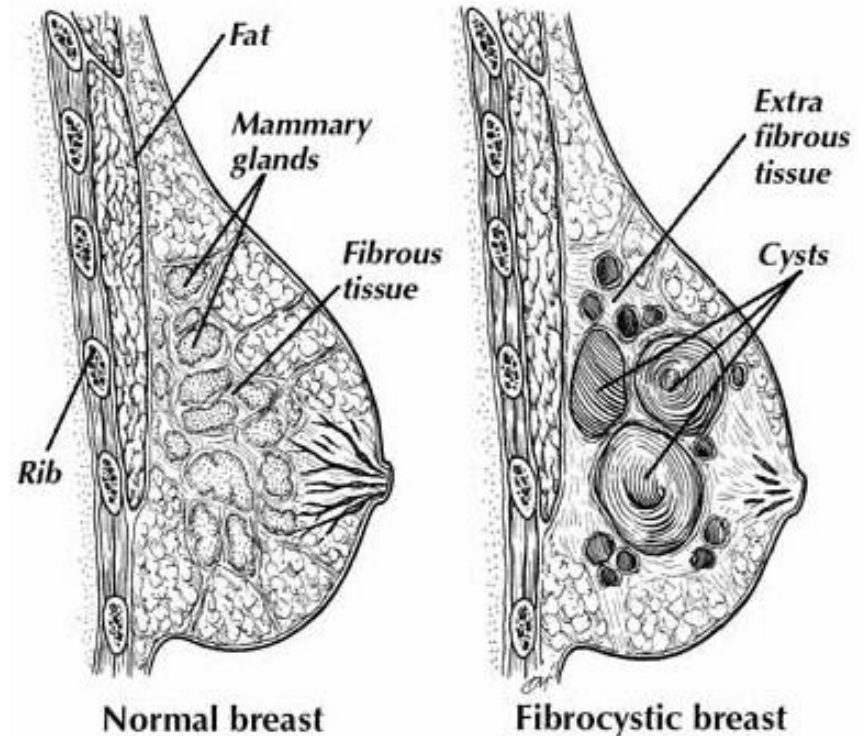
1. Epithelial hyperplasia
2. Sclerosing adenosis
3. Complex sclerosing lesions/radial scar
4. Papillomas

- A. Atypical hyperplasia



# Non Proliferative: Fibrocystic Changes

- **MOST COMMON** disorder of the breast
- Age: 20-55 yrs, decreases after menopause
- Cause is unknown
- Consists of various combinations of cysts, fibrous overgrowth & epithelial proliferation
- **No increased risk for cancer**



# Non Proliferative: Fibrocystic Changes

- **Presentation:**

1. **Asymptomatic palpable masses**

- Cysts are the most common cause (alarming: if solitary and firm)
- Vary from diffuse, small irregularities (lumpy bumpy breast) to discrete masses

2. **May produce mammographic densities  $\pm$  calcifications**

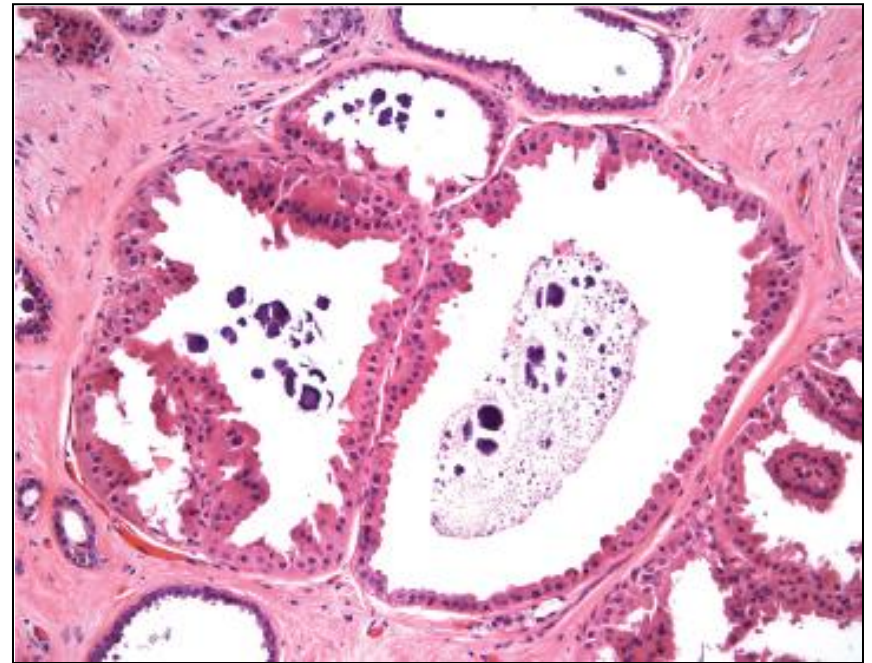
3. **May produce nipple discharge**

4. **May produce pain**

- May be cyclical: midcycle or pre-menstrual
- May be focal or diffuse
- May be with or without lumps

# Non Proliferative: Fibrocystic Changes

- Morphology: 3 patterns; Cystic formation, fibrosis & adenosis
  1. **Cysts:** can be big or small, contain turbid (semi-translucent) fluid
    - *Histology:* lined with flattened epithelium w/ **apocrine** features OR completely lack an epithelial lining
  2. **Fibrosis:** contribute to the palpable **firmness** of the breast
  3. **Adenosis:** Increase in the number of **acini** per lobule - *can be seen in pregnancy*



Apocrine : exhibiting that type of glandular secretion in which the free end of the secreting cell is cast off along with the secretory products accumulated therein (e.g., mammary and sweat glands).

# Benign Epithelial Lesions: Proliferative Disease without Atypia

Proliferation of ductal epithelium and/or stroma without cellular abnormalities that are suggestive of cancer

- **Rarely form palpable masses**
- **Incidental** finding
- Detected as mammographic **densities**.

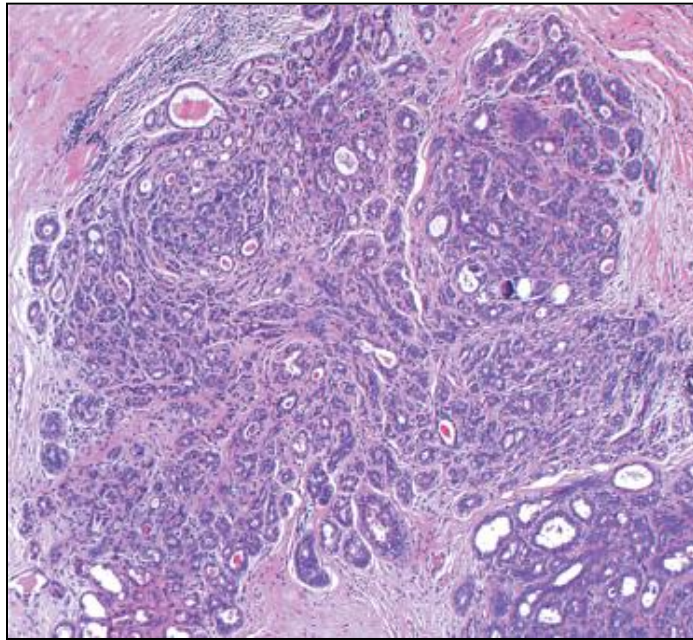
e.g. Large duct papilloma present in 80% as nipple discharge

- ***Risk for cancer (slightly increased)*** is 1.5 – 2 times normal

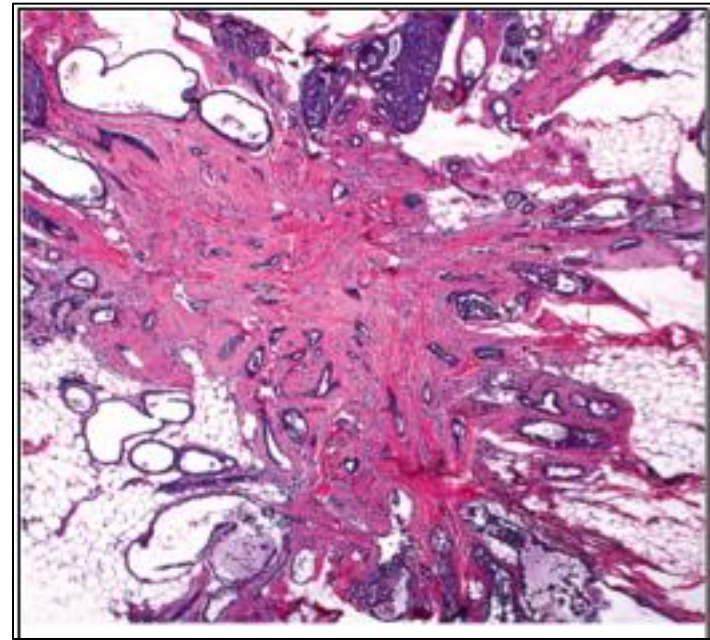
Epithelial Hyperplasia	Sclerosing Adenosis	Complex Sclerosing Lesions/Radial Scar	Papillomas
<ul style="list-style-type: none"> <li>• <b>Microscopic finding cannot be predicted clinically or by mammographic examination</b></li> <li>• <b>Epithelial or ductal hyperplasia</b> is an increase in the cellularity of the epithelium of the TDLU</li> <li>• <b>Defined</b> by the presence of <b>more than two cell layers</b></li> <li>• Ranges from mild, moderate to florid and from typical (i.e. without atypia) to atypical</li> <li>• <b>Distends</b> the ducts and ductules</li> <li>• shows two distinct cell populations, <b>epithelial</b> and <b>myoepithelial</b> cells</li> <li>• May <b>coexist</b> with other features of fibrocystic change; but may form the predominant pattern</li> </ul>	<ul style="list-style-type: none"> <li>• Incidental microscopic finding; may present as a mass (and can <b>resemble</b> cancer)</li> <li>• <b>Diffuse microcalcifications</b> are seen on mammograph (mimics carcinoma on mammograph)</li> <li>• <b>Microscopy:</b> consists of proliferation of ductular structures and stroma with distortion of the TDLU</li> <li>• <b>Almost always present with other forms of fibrocystic change</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>“Scar”</b> = morphologic appearance; not associated with prior trauma or injury</li> <li>• They are stellate lesions <ul style="list-style-type: none"> <li>▪ Central nidus = entrapped glands</li> <li>▪ Hyalinized stroma</li> </ul> </li> <li>• Can <b>resemble</b> irregular invasive carcinomas <u>mammographically</u> or on <u>gross</u> examination</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Papillary tumor</b> that <u>arises from</u> the <b>duct epithelium</b></li> <li>• Arises more often in the <b>central part</b> of the breast; lactiferous ducts (75%) but can occur in any quadrant</li> <li>• More commonly <b>solitary</b>, consisting of a <b>single</b> tumor in one duct, but multiple discrete tumors may occur</li> <li>• <b>Large</b> duct papillomas are usually <b>solitary</b> and situated in the lactiferous sinuses of the <b>nipple</b></li> <li>• <b>Small</b> duct papillomas are commonly <b>multiple</b> and located <b>deeper</b> within the ductal system</li> <li>• Small duct papillomas → increase the risk of subsequent carcinoma.</li> <li>• Presentation: <ul style="list-style-type: none"> <li>• <b>Nipple discharge</b>; may be bloody 🩸 most common in <b>central</b> papillomas (more common &amp; less dangerous) and less commonly of <b>peripheral</b> tumors</li> <li>• Palpable subareolar mass</li> <li>• Age = 30-50</li> <li>• <b>all benign lesion &lt; 50 yrs</b></li> </ul> </li> </ul>



# Benign Epithelial Lesions: Proliferative Disease without Atypia

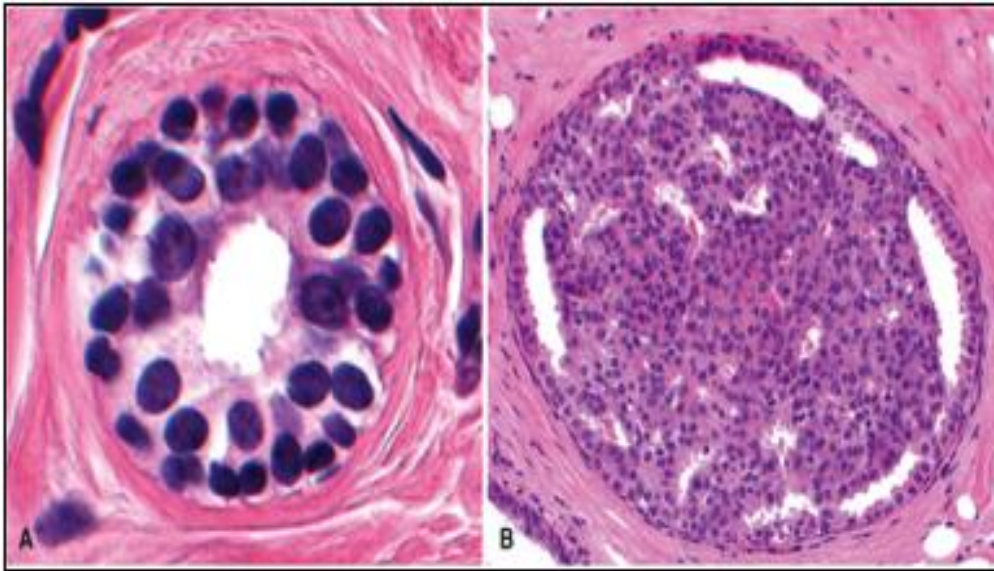


**Sclerosing adenosis.** The involved TDLU is **enlarged**, and the **acini** are compressed and **distorted** by the surrounding **dense stroma**. **Calcifications** are often present within the lumens. Although this lesion is frequently mistaken for an invasive carcinoma, unlike carcinomas, the acini are arranged in a swirling pattern, and the outer border is usually well circumscribed.

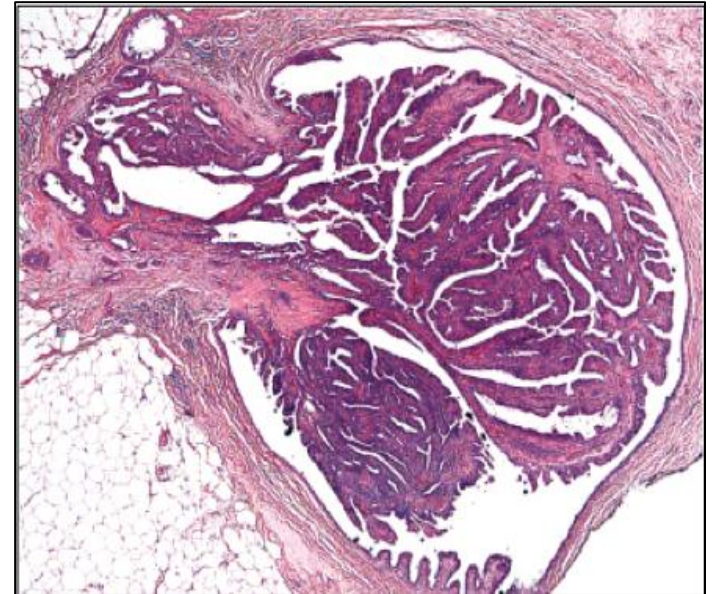


**Complex sclerosing lesion (radial scar).** There is a **central nidus** consisting of small tubules entrapped in a densely **fibrotic stroma** surrounded by radiating arms of epithelium with varying degrees of cyst formation and hyperplasia. These lesions typically present as an *irregular mammographic density* and closely mimic an invasive carcinoma.

# Benign Epithelial Lesions: Proliferative Disease without Atypia



**A**, Normal: Acinus has a **single basally** located myoepithelial cell layer (cells with dark, compact nuclei and scant cytoplasm) and a **single luminal** cell layer (cells with larger open nuclei, small nucleoli, and more abundant cytoplasm). **B**, Epithelial hyperplasia: The lumen is filled with a **heterogeneous** population of cells of different morphologies, often including both luminal and myoepithelial cell types. Irregular slit-like **fenestrations** are prominent at the periphery.

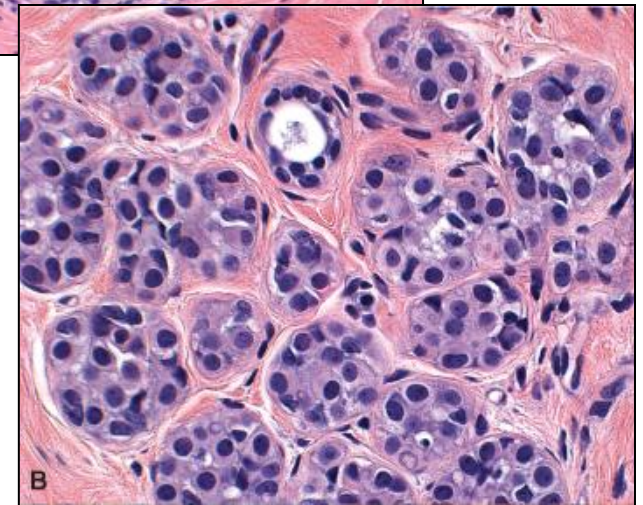
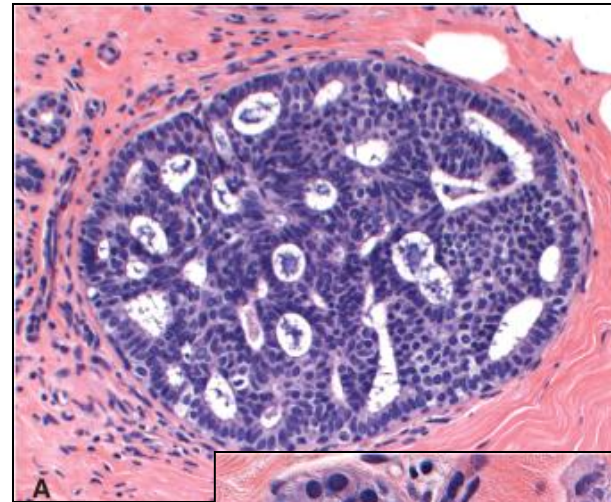


**Intra-ductal papilloma.** A central **fibrovascular core** extends from the wall of a duct. The papillae arborize within the lumen and are lined by myoepithelial and luminal cells.



# Proliferative Breast Disease w/Atypia

- **Risk for cancer is highly increased** (4-5 times)
- Cellular proliferation **resembling** (has some of the architectural and cytologic features) ductal carcinoma in situ (DCIS) or lobular carcinoma in situ (LCIS) but lacking sufficient qualitative or quantitative features for a diagnosis of carcinoma in situ
- **Include two entities**
  - **Atypical ductal hyperplasia**
  - **Atypical lobular hyperplasia**
- DCIS more common than LCIS





# Breast Cancer: Classification

**Non-invasive:** proliferation that is still confined to the TDLU, **has not invaded beyond the basement membrane**, incapable of metastases

- Ductal Carcinoma In Situ (80%)
- Paget's Disease
- Lobular Carcinoma In Situ

**Invasive:** is a tumor that has extended across the basement membrane

- Invasive Ductal Carcinoma, NOS
- Invasive Lobular Carcinoma
- Tubular
- Medullary
- Mucoid/Colloid

- ★ The most common malignancy of breast is carcinoma (Almost all are adenocarcinoma)
- ★ Carcinoma of the breast is the most common cancer in women
- ★ Mammographic screening increased dramatically the detection of small invasive cancers

# Non-Invasive: Ductal Carcinoma In Situ

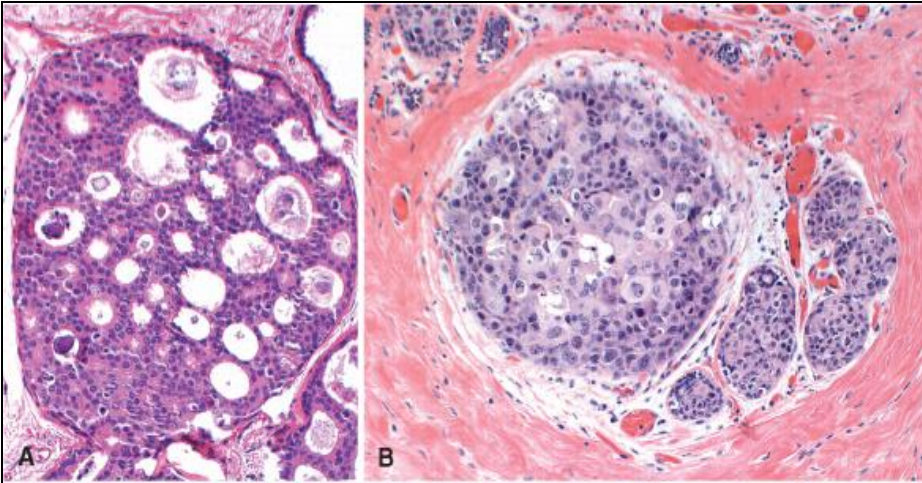
- Heterogeneous
- Noninvasive neoplastic proliferation with risk of development of subsequent invasive carcinoma
- Distends and distorts the ducts in the TDLU so that the terminal ducts enlarge and resemble large ducts
- Epidemiology:
  - Age: **between 50 & 59** (~ invasive)
  - 50% of mammographically detected cancers
  - Rapidly increased in the past two decades
- Diagnosis: Mammography; detect microcalcifications (in 72-98% of DCIS)
  - Because they are non-palpable
  - Most frequently as a calcifications
  - Less frequently as a density or a vaguely palpable mass or nipple discharge
- Subtypes: **Comedo, cribriform, papillary, micropapillary, solid**
- Clinical (risk of subsequent invasive carcinoma):
  - **Comedocarcinoma: if untreated = 100% chance (Has comedo necrosis in center)**
  - Cribriform/micropapillary: only 30% chance

# Non-Invasive: Ductal Carcinoma In Situ

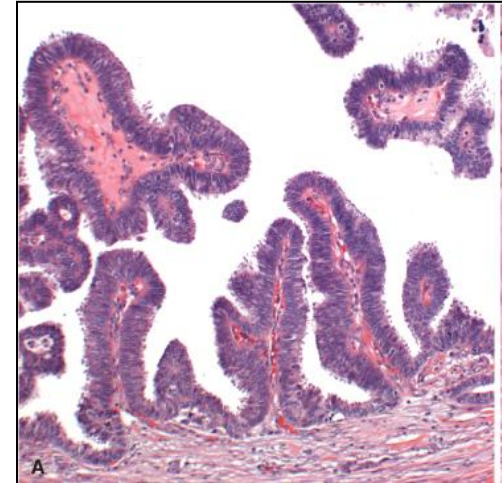
- Mammography is a very sensitive diagnostic procedure for detecting DCIS, as a substantial proportion is not palpable
- Mammographically detected microcalcifications are found in 72 to 98% of DCIS

# Ductal Carcinoma In Situ: Subtypes

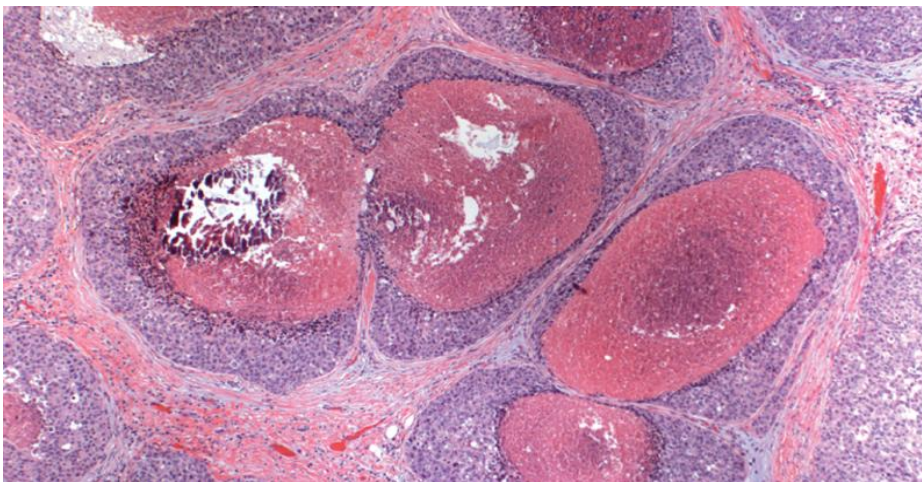
Cribriform and Solid



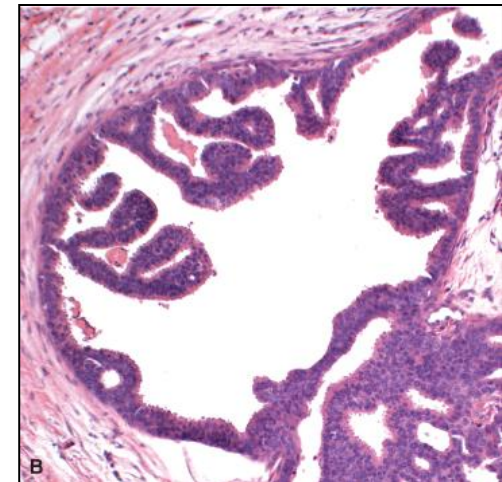
Papillary



Comedocarcinoma



Micropapillary



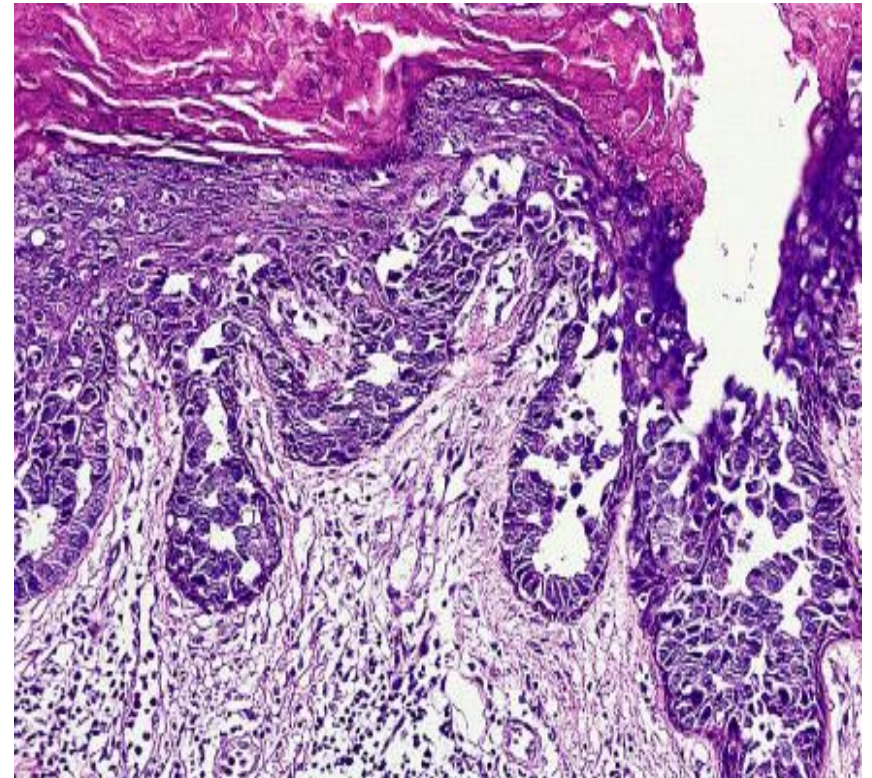
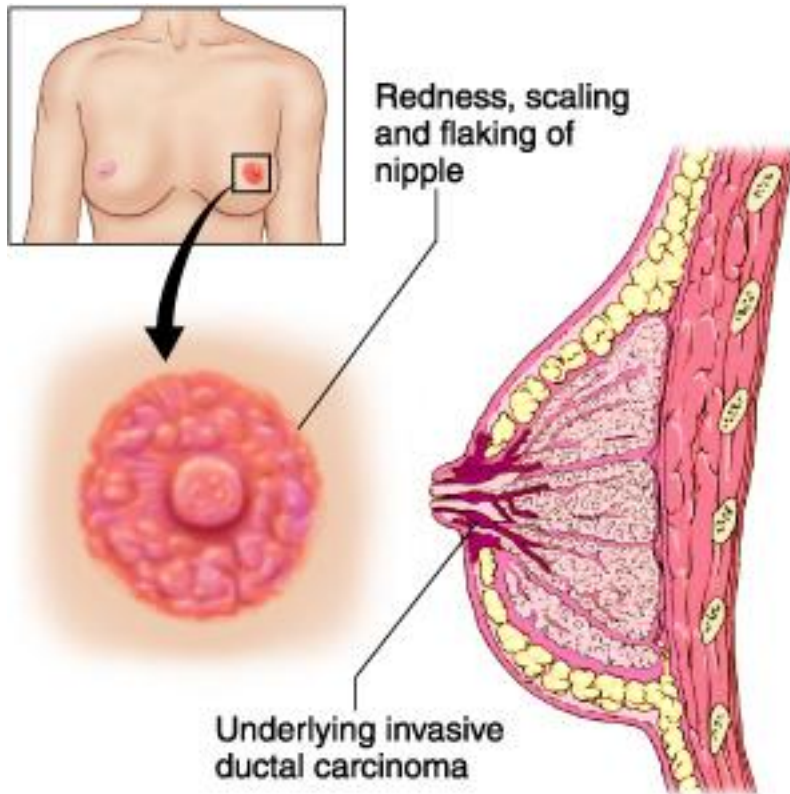
# Paget's Disease



- **Rare skin manifestation of breast cancer (1-2 %)**
- Is caused by the extension of DCIS up to the lactiferous ducts and into the contiguous skin of the nipple
- **Clinical:**
  - Presents as a **unilateral erythematous eruption with a scale crust (due to exudate) of the nipple (might be mistaken for Eczema); subtle or eroded**
  - Pruritus is common
- **Histology: infiltration of the epidermis by large ductal neoplastic cells (malignant Paget cells)**
  - extend from DCIS within the ductal system into nipple skin without crossing the basement membrane
  - abundant clear or pale cytoplasm and nuclei with prominent nucleoli
  - The cells usually stain positively for mucin
- **Diagnosis: Palpable mass is present in 50 to 60%**
  - **indicates an underlying invasive carcinoma**



# Paget's Disease of the Nipple

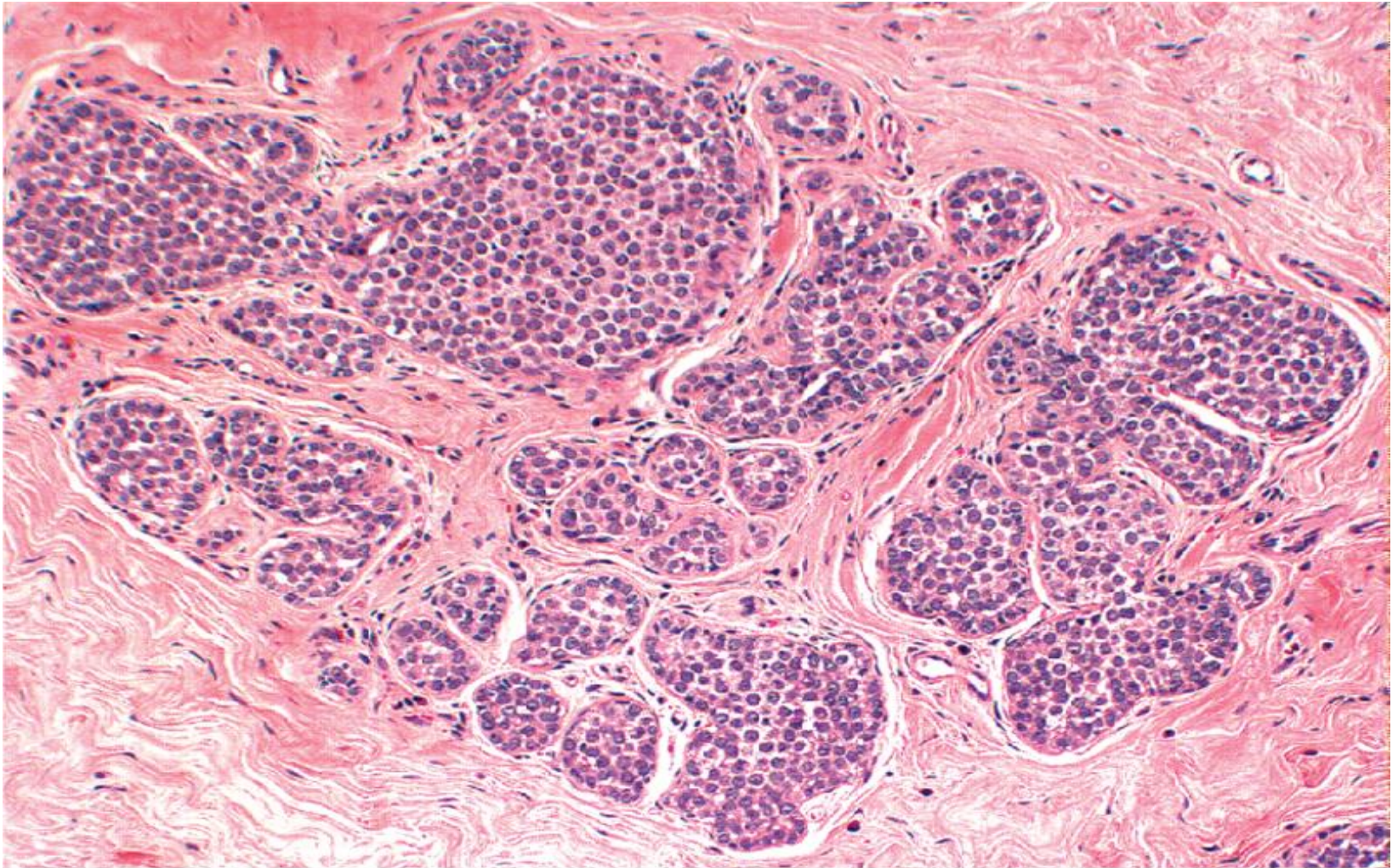


# Non-Invasive: Lobular Carcinoma In Situ

- Uncommon (1-6% of carcinomas)
- Nonpalpable (no mass); always an incidental finding in a breast biopsy for other reasons; cannot be identified by mammography (no calcifications)
- **Proliferation of cells that fill and distend the Terminal Duct Lobular Unit**
- Multi-centric (multi-focal) and bilateral (in 20-40% of women)
- Clinical:
  - If left untreated, about 30% of women develop an invasive cancer within 20 years
  - The cancer could be ductal or lobular
  - Risk is increased for both breasts
  - subsequent carcinomas occur at equal frequency in both breasts



# LCIS





# REMEMBER

The 2 non-invasive carcinomas are

- Non-palpable
  - But DCIS can form mass + associated w/calcifications
- A third of affected women will develop the invasive form
- DCIS: distends & distorts terminal ducts of TDLU
- LCIS: distends & distorts TDLU (the whole unit)
- LCIS is bilateral; equal risk of developing cancer for both breasts

# CLINICAL FEATURES OF BREAST CANCER

## Palpable mass

## Axillary lymph node metastases

- Half of patients will have Axillary Lymph Node metastases by the time a cancer becomes palpable

## Inflammatory Breast Cancer

- Dimpling of skin “peau d’orange”
- Lymphedema & thickening of the skin ; lymphatics may become so involved as to block the local area of skin drainage
- Enlarged erythematous breast
- Does not correlate with a specific histologic type of carcinoma

## Retraction of the nipple

- When the tumor involves the central portion of the breast

## Mammographic densities

## Mammographic calcifications

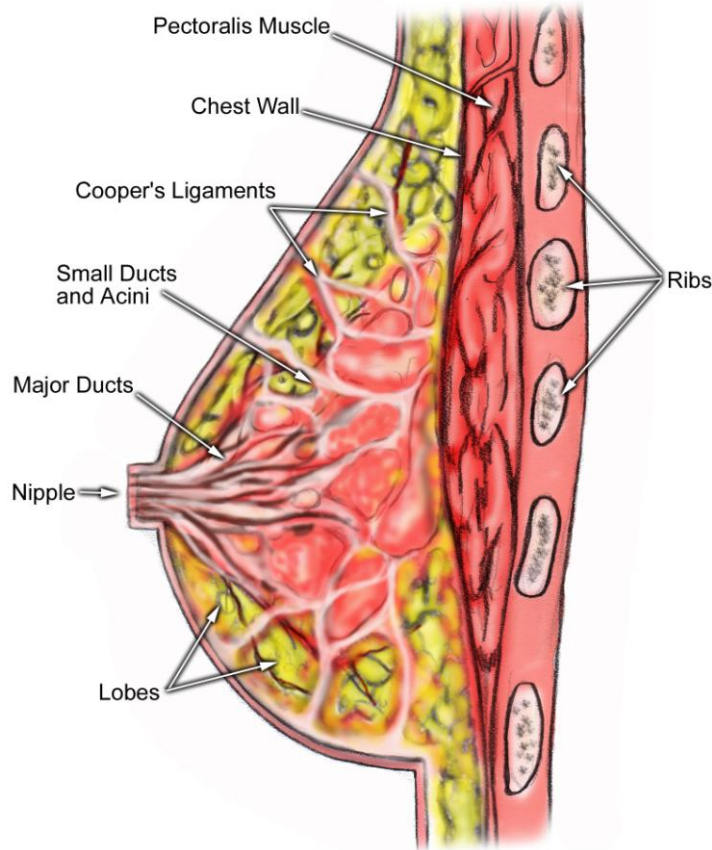
- In OLDER WOMEN, invasive carcinomas most commonly present as a
  - Mammographic **density**
  - Are half the size of a palpable cancer
  - *Fewer than 20% will have nodal metastases*
- Invasive carcinomas presenting as mammographic **calcifications** *without an associated density* are
  - **Very small in size**
  - *Metastases are unusual.*



# Invasive Ductal Carcinoma ,NOS

- NOS: not otherwise specified; doesn't indicate that this tumor arises from the ductal system
- **COMMONEST** type of breast cancer (80%)
- Produce a **desmoplastic response** (fibroblastic stromal reaction to the invading tumor cells), which replaces normal breast fat (= mammographic density) and forms a hard, **palpable mass** (hence *scirrhous carcinoma*)
- The tumor shows an infiltrative attachment to the surrounding structures → dimpling of the skin (due to traction on suspensory ligaments) or nipple retraction

# Invasive Ductal Carcinoma ,NOS



- The tumor shows an infiltrative attachment to the surrounding structures → dimpling of the skin (due to traction on suspensory (Cooper's) ligaments) or nipple retraction

# Invasive Ductal Carcinoma ,NOS



© Elsevier, Kumar et al: Robbins Basic Pathology 8e - www.studentconsult.com

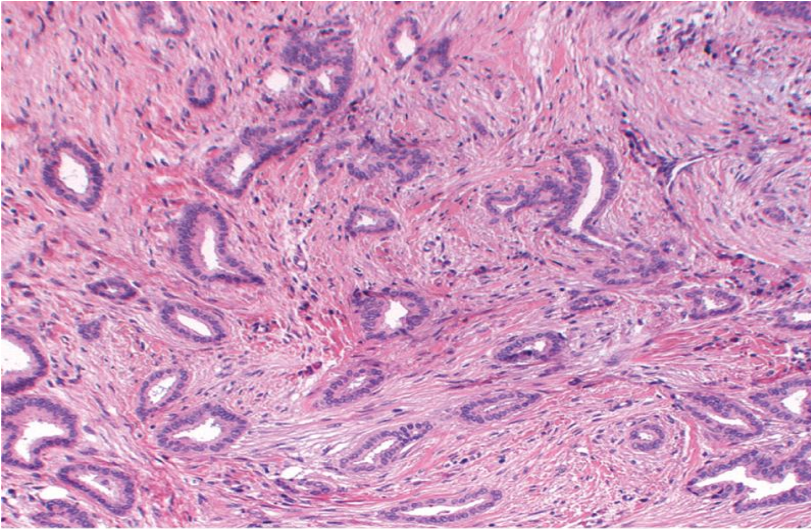


## GROSS MORPHOLOGY:

- Firm ,**hard**, and have an **irregular border**
- Cut surface: **gritty** (grating sound when cut or scraped)
- **Irregular margins** with stellate infiltration
- Center: small foci of chalky white **stroma** & occasionally **calcifications**
- Could be **soft and well demarcated**
- Accompanied by varying amounts of DCIS



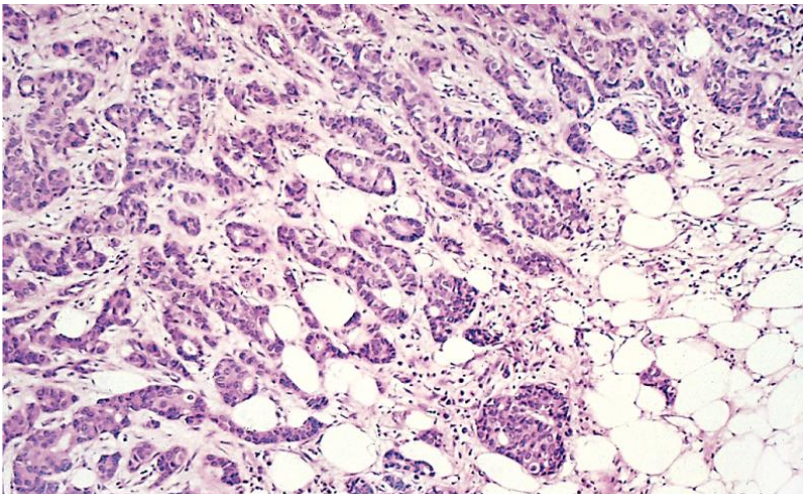
# Invasive Ductal Carcinoma ,NOS



© Elsevier. Kumar et al: Robbins Basic Pathology 8e - www.studentconsult.com

## HISTOLOGICAL MORPHOLOGY:

- Tumor cells are larger than normal epithelium
- Patterns: **glandular** formation, **cords** of cells, broad **sheets** of cells or a mixture of all these, usually within a **dense stroma**
- Range from well differentiated, in which there is glandular formation, to poorly differentiated, containing solid sheets of pleomorphic neoplastic cells
- When associated with a large amount of DCIS require large excisions with wide margins to reduce local recurrences



© Elsevier. Kumar et al: Robbins Basic Pathology 8e - www.studentconsult.com

# Invasive Ductal Carcinoma ,NOS

## SUMMARY

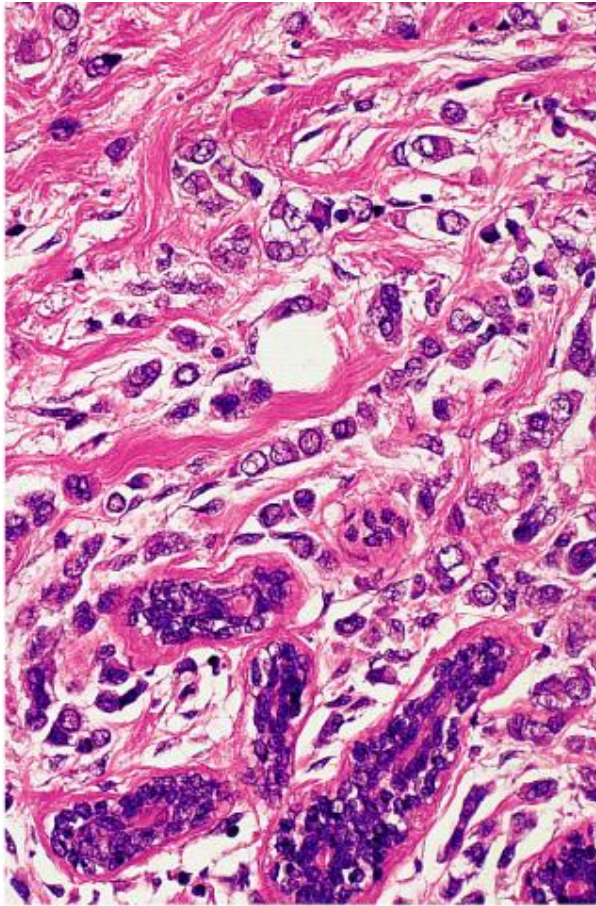
- Commonest type
- Produce desmoplasia (abundant fibrous stroma)
- Forms a hard palpable mass
- Could cause dimpling of the skin/nipple retraction
- Gross: hard, gritty cut surface with irregular margins
- Histology:
  - Large tumor cells, in glandular formations, cell cords, broad sheets or a mixture; within dense stroma
  - Ranges from well differentiated to poorly differentiated

# Invasive Lobular Carcinoma

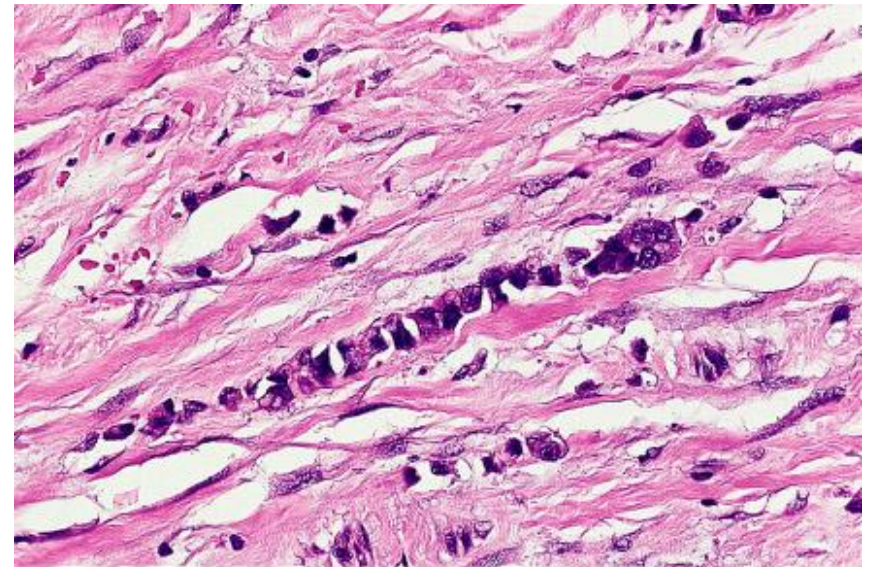
- 2<sup>nd</sup> most **COMMON** (10% of breast cancers)
- **Alone or in combination with ductal carcinoma**
- **Bilateral & multi-centric**
- Amount of desmoplasia varies from dense to very little → presentation varies from discrete mass to subtle, diffuse indurated (hardened) area
- Morphology:
  - Most are **firm to hard with irregular margins**
  - Single infiltrating cells ,often one cell width
  - **It show indian file cells**
  - No tubules or papillary formation
  - 10% of cases have mixed features of invasive ductal and lobular carcinomas.



# Invasive Lobular Carcinoma



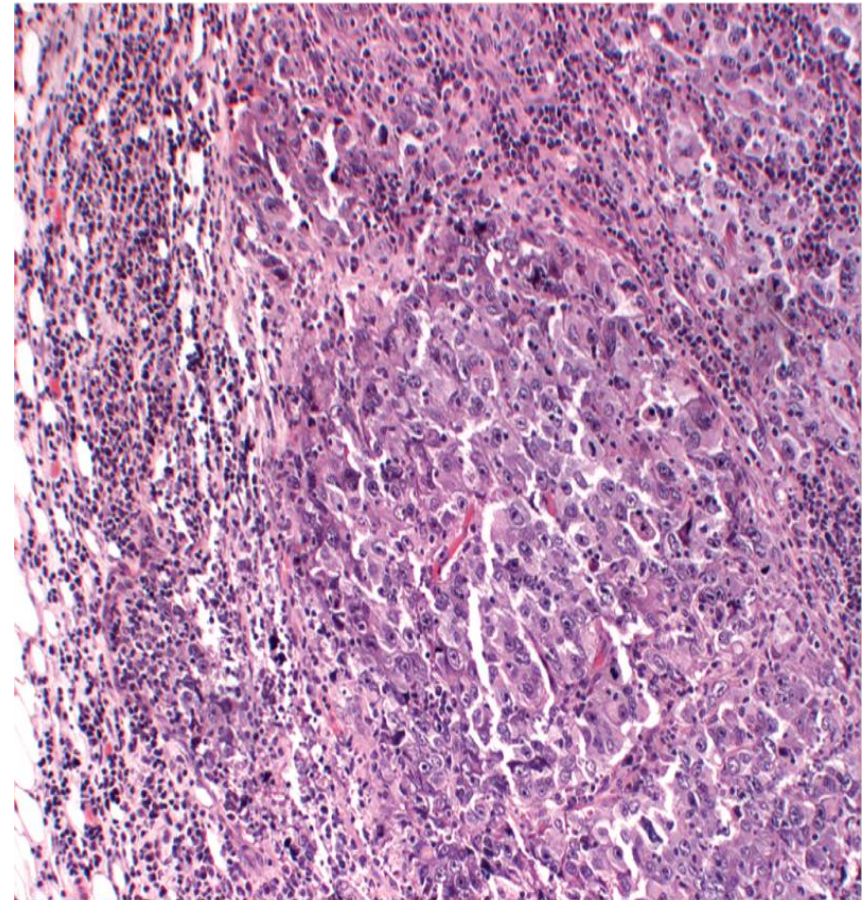
© Elsevier Inc 2004 Rosai and Ackerman's Surgical Pathology 9e



© Elsevier Inc 2004 Rosai and Ackerman's Surgical Pathology 9e

# Invasive Medullary Carcinoma

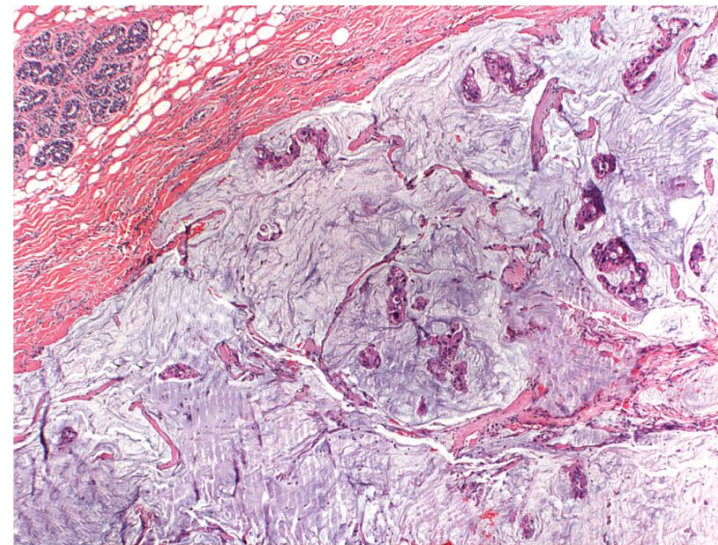
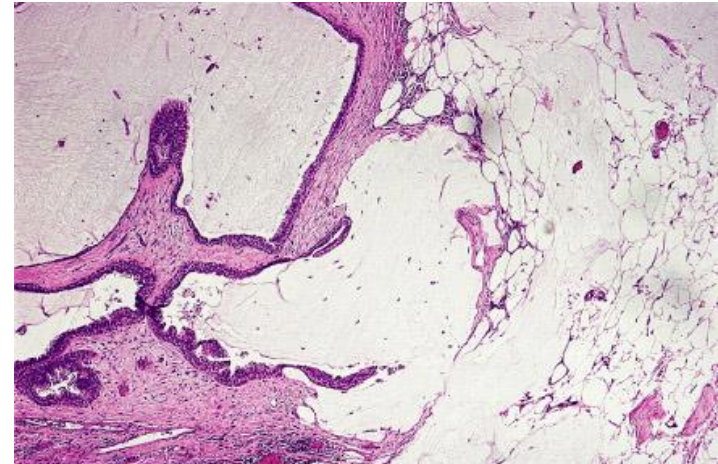
- Presents as a **well circumscribed mass**
- *May be mistaken clinically and radiologically for fibroadenoma*
- **No desmoplastic reaction** → is **soft** and **fleshy** (encephaloid)
- Gross: **hemorrhage & necrosis**
- Microscopically:
  - **Solid sheets** of malignant cells and frequent mitoses
  - **Scant fibrous stroma**
  - **Lymphocytes and plasma cells** surround the tumor cells





# Colloid Carcinoma/Mucinous Carcinoma

- Occur in **OLDER WOMEN**
- Sharply **circumscribed**
- Lacks fibrous stroma (**no desmoplasia**) → **soft** and gelatinous
- May be in pure mucinous or mixed
- Gross: **glistening** cut surface
- Histologically: **composed of small islands, occasionally forming glands, and isolated tumor cells floating in pools of extracellular mucin**



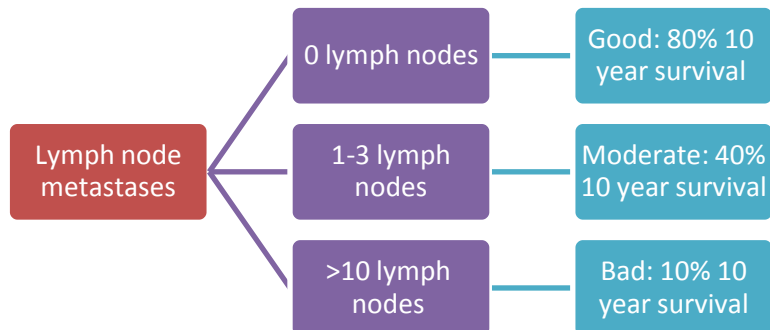
Invasive Ductal Carcinoma ,NOS	Invasive Lobular Carcinoma	Invasive Medullary Carcinoma	Colloid Carcinoma/Mucinous Carcinoma
<ul style="list-style-type: none"> <li>•<b>Commonest</b> type</li> <li>•Produce desmoplasia (abundant fibrous stroma)</li> <li>•Forms a hard palpable mass</li> <li>•Could cause dimpling of the skin/nipple retraction</li> <li>•GROSS: hard, gritty cut surface with irregular margins</li> <li>•HISTOLOGY: <ul style="list-style-type: none"> <li>•Large tumor cells, in glandular formations, cell cords, broad sheets or a mixture; within dense stroma</li> <li>•Ranges from well differentiated to poorly differentiated</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•2<sup>nd</sup> most <b>COMMON</b></li> <li>•Alone / in combination</li> <li>•Bilateral &amp; multi-centric</li> <li>•desmoplasia varies → presentation varies (mass or no mass)</li> <li>•MORPHOLOGY: <ul style="list-style-type: none"> <li>•Firm/hard w/ irregular margins</li> <li>•Single infiltrating cell</li> <li>•No tubules or papillary formation</li> <li>•10% have mixed features of ductal &amp; lobular</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•Well-circumscribed mass</li> <li>•No desmoplasia → soft &amp; fleshy (encephaloid)</li> <li>•GROSS: <b>hemorrhage &amp; necrosis</b></li> <li>•MICROSCOPICALLY: <ul style="list-style-type: none"> <li>•<b>Solid sheets</b> of malignant cells and frequent mitoses</li> <li>•<b>Scant fibrous stroma</b></li> <li>•<b>Lymphocytes and plasma cells</b> surround the tumor cells</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>•Occur in <b>OLDER WOMEN</b></li> <li>•Well-circumscribed mass</li> <li>•No desmoplasia → soft &amp; gelatinous</li> <li>•May be in pure mucinous or mixed</li> <li>•GROSS: <b>glistening</b> cut surface</li> <li>•HISTOLOGICALLY: composed of small <b>islands</b>, occasionally forming <b>glands</b>, and isolated tumor cells floating in pools of <b>extracellular mucin</b></li> </ul>

# Prognosis

Major prognostic factors:

## 1. Invasive or in situ disease

- Majority of women with DCIS will be cured
- ~50% of invasive will metastasize
  - Non-invasive has better prognosis
  - Distant metastases = worse prognosis



## 2. Lymph node metastases

- if we can't find distant metastases the most important prognostic factor for metastases is axillary lymph node metastases
- Remember the bigger the tumor the more risk it might reach the axillary lymph nodes

1. **Distant metastasis:** Once distant metastases are present, cure is unlikely, although long-term remissions and palliation can be achieved. **Favored sites for dissemination are the lungs, bones, liver, adrenals, brain, and meninges**

# Prognosis

## 4. Tumor size

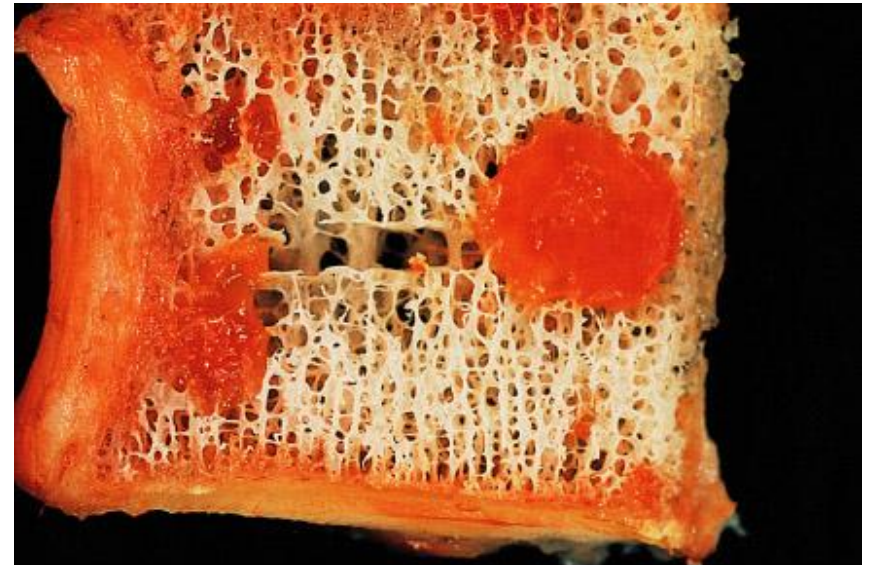
- The size of the carcinoma is the second most important prognostic factor
- Bigger → reaches axillary node → metastases
- <2 cm → good prognosis

## 5. Local invasion (locally advanced disease)

- Invasion of muscles and skin is associated with later distant metastases
- Rare nowadays

## 6. Inflammatory carcinoma = bad prognosis

Metastasis to vertebra



# Prognosis

## Minor prognostic factors

### 1. Histological Subtype

- Invading Infiltrating ductal and lobular carcinomas > worse prognosis
- medullary and mucinous > intermediate
- tubular and cribriform > most favourable prognoses

### 2. Tumour grade

- name of grading : **Bloom Richardson**
- Grading separates tumors into three categories
  - according to the amount of well formed tubules,
  - the degree of nuclear pleomorphism
  - mitotic rate

### 3. Estrogen and progesterone receptors

- **Good prognosis** ( better than cancers without receptors. Why? they respond to **tamoxifen**)
- Therefore reporting of ER/PR positivity is important when reporting breast cancer

### 4. HER2/neu. (human epidermal growth factor receptor 2 or *c-erb B2* or *neu*)

- Associated with a **poor prognosis** but responds well to hormonal or anthracycline chemotherapy regimens e.g. **Trastuzumab (Herceptin)**
- Therefore evaluation of HER2/neu is most important when reporting breast cancer



### 5. Lymphovascular invasion: Tumor cells may be seen within vascular spaces (either lymphatics or small capillaries) surrounding tumors

- **associated with lymph node metastases = poor prognosis**

### 6. Proliferative rates

Breast Cancer:

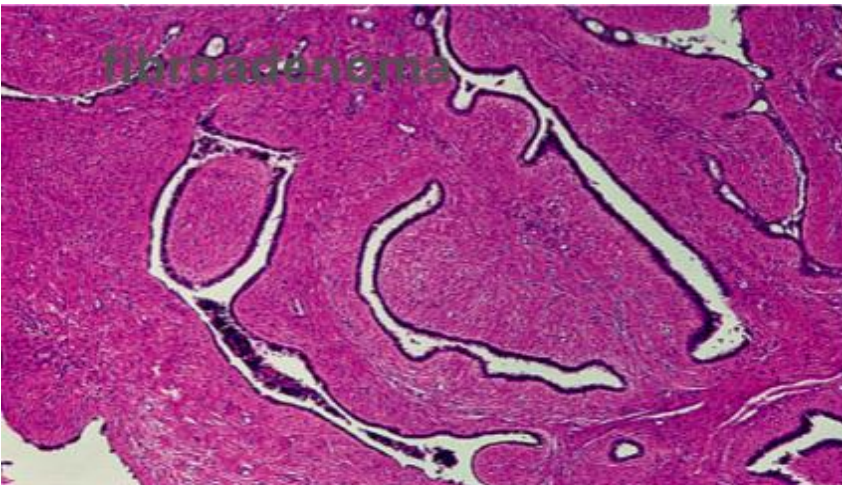
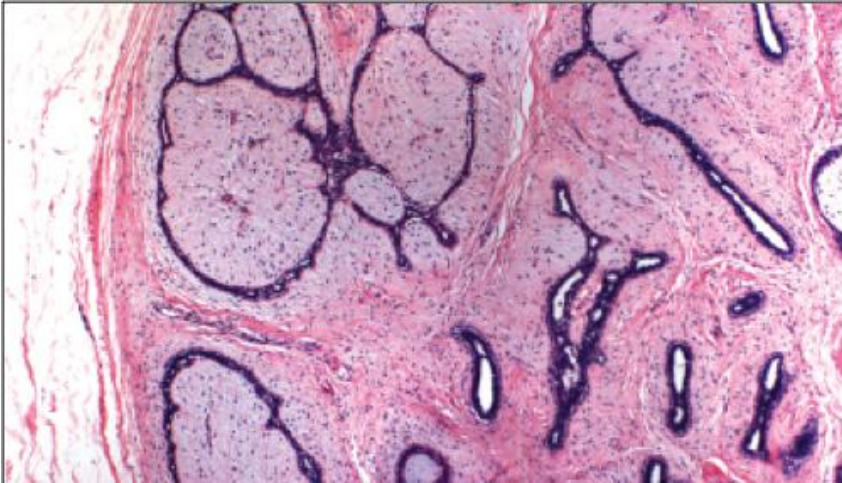
# **STROMAL TUMORS**



# 1 Fibroadenoma

<b>Presentation</b>	<p>Most common benign tumor of the breast</p> <ul style="list-style-type: none"><li>• Age: &lt;30 years (young female)</li><li>• Palpable mass;<ul style="list-style-type: none"><li>• Spherical, rubbery nodule</li><li>• Sharply circumscribed</li><li>• Freely movable; can be shelled out</li><li>• May increase in size during pregnancy, and cease to grow after menopause</li></ul></li></ul>
<b>Course</b>	<p>Completely benign; carcinoma may arise within a fibroadenoma; predominant type has been <i>lobular carcinoma</i></p>
<b>Morphology</b>	<ul style="list-style-type: none"><li>• Usually solitary; but may be multiple &amp; involve both breasts</li><li>• Cut-surface: pearl white</li><li>• Histologically<ul style="list-style-type: none"><li>• mixture of ducts and fibrous connective tissue</li></ul></li></ul>
<b>Treatment</b>	<ul style="list-style-type: none"><li>• Lumpectomy</li></ul>

# 1 Fibroadenoma



## 2 Phylloides Tumor

<b>Presentation</b>	<ul style="list-style-type: none"><li>• Any age; but most commonly <b>6<sup>th</sup> decade</b> (10-20 yrs later than fibroadenoma)</li><li>• <b>Palpable mass</b></li></ul>
<b>Morphology</b>	Arise from <b>intralobular stroma</b>
<b>Course</b>	<ul style="list-style-type: none"><li>• <b>Majority: low-grade</b><ul style="list-style-type: none"><li>• May recur locally</li><li>• Rarely metastasize</li></ul></li><li>• <b>Rarely: high-grade; behave aggressively</b><ul style="list-style-type: none"><li>• Local recurrences</li><li>• Distant hematogenous metastases</li></ul></li></ul>
<b>Treatment</b>	Excised with wide margins to avoid local recurrences