

Good morning!

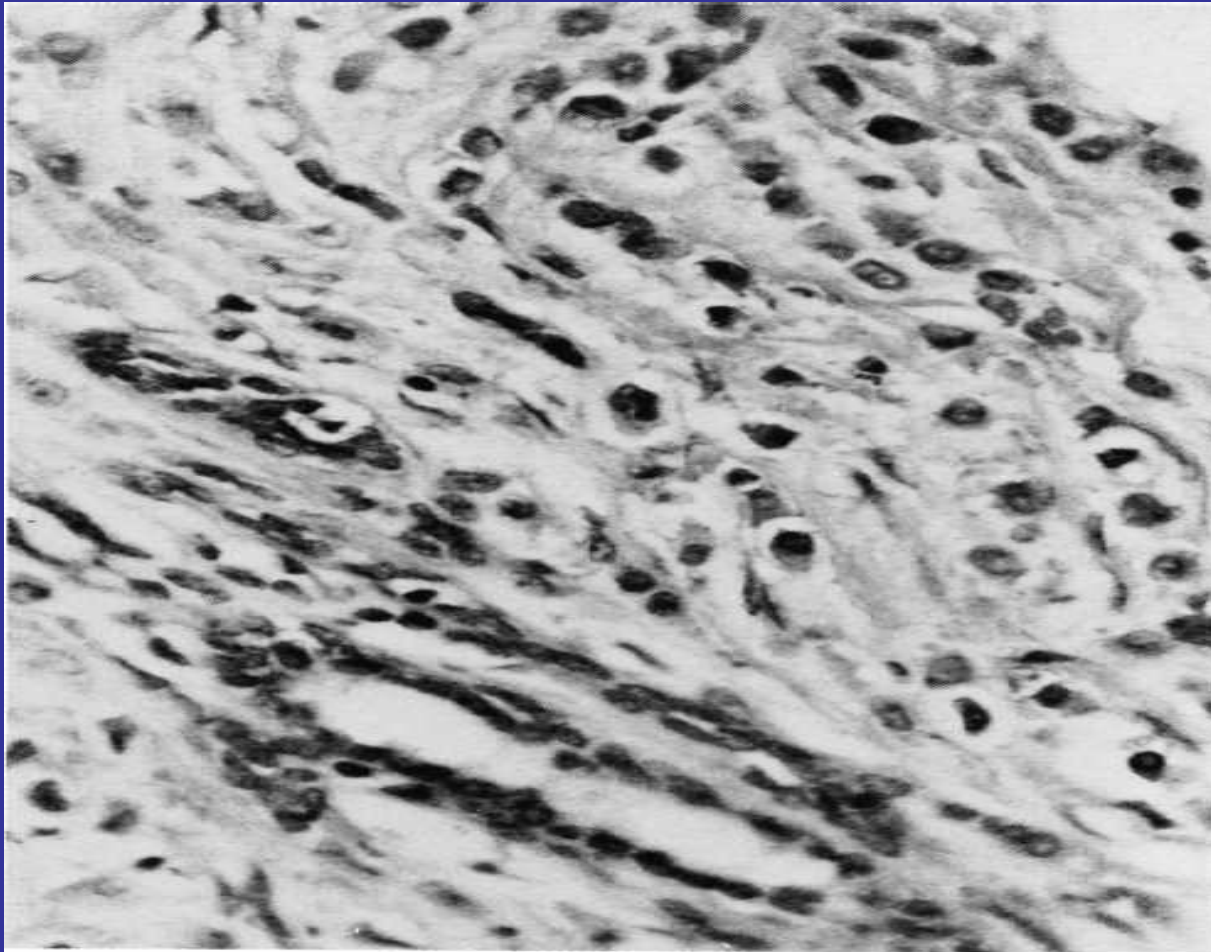
CARCINOMA IN SITU

- Cancer cells are in situ or invasive depending on whether or not they invade the basement membrane. As areas of invasion may be few, the accurate diagnosis of in situ cancer necessitates the analysis of multiple microscopy sections to exclude invasion.

Lobular Carcinoma In Situ

- LCIS originates from the terminal duct lobular units. It is characterized by distension of terminal duct units which are large but maintain a normal nuclear:cytoplasmic ratio.
- Cytoplasmic mucoid globules are distinctive cellular features. The neighborhood classification is a feature that is unique in LCIS.

Lobular carcinoma (x250). Uniform, relatively small lobular carcinoma cells are seen arranged in a single file orientation ("Indian file"). (*Reproduced with permission from Simpson JF et al, 60 p 285.*)

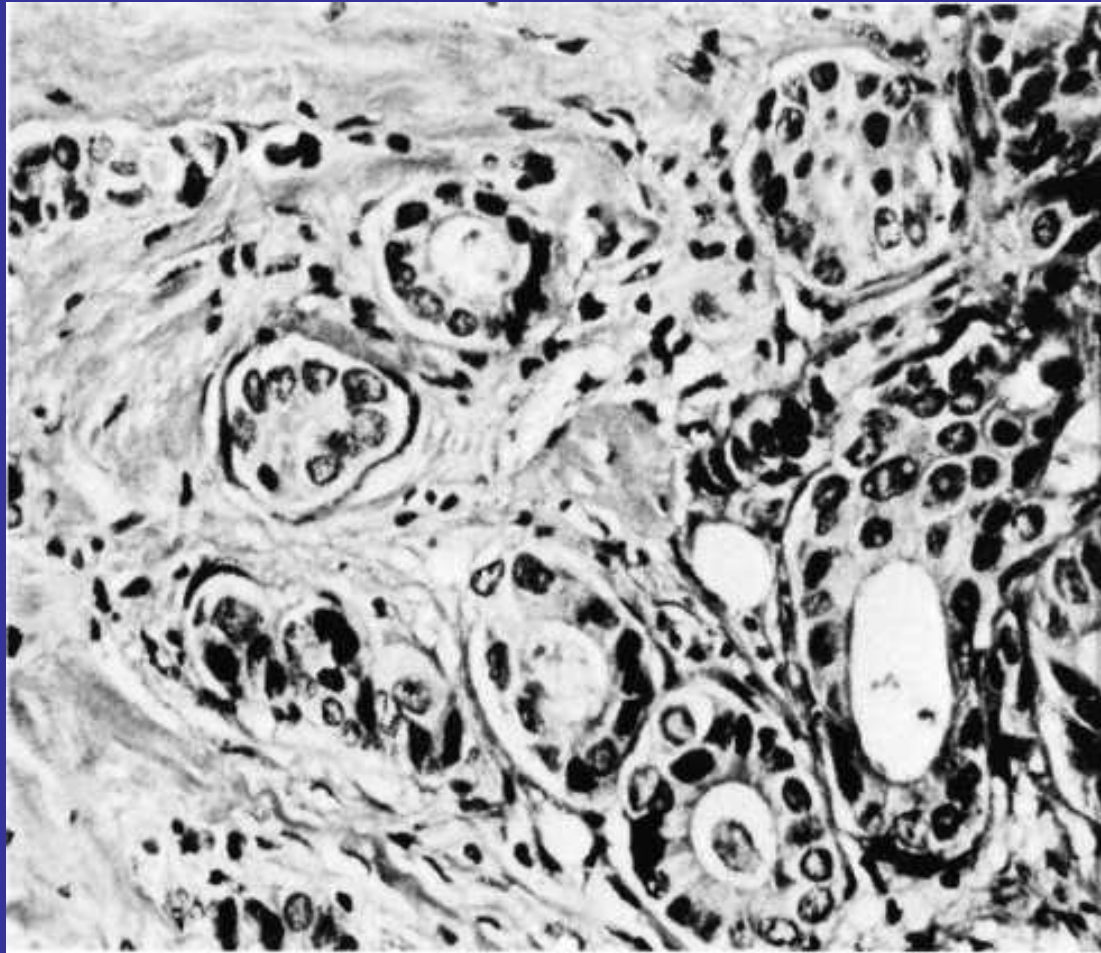


Ductal Carcinoma In Situ

- DCIS is predominantly seen in the female breast, it accounts for 5% of all male breast cancers.
- Histologically, it is characterized by proliferation of epithelium that lines the minor ducts, resulting in papillary growths within the duct lumina.

- The papillary growth fill the duct lumina, rounded spaces remain between clumps showing hypochromasia and loss of polarity (cribriform growth pattern).
- Eventually pleimorphic cancer cells obliterate lumina and distend the ducts (solid growth pattern).
- With continued growth, these cells outstrip the blood supply and become necrotic (comedo growth patern) .

Infiltrating ductal carcinoma with productive fibrosis (scirrhous, simplex, NST) (x62.5). (*Courtesy of Dr. R. L. Hackett.*)



- **Table 16-10 Classification of Breast Ductal Carcinoma In Situ (DCIS)**

- ***Determining Characteristics***

<i>Histology</i>	<i>Nuclear Grade</i>	<i>Necrosis</i>	<i>DCIS Grade</i>
Comedo	High	Extensive	High
Intermediate ^a Intermediate	Intermediate	Focal or absent	
Noncomedo ^b	Low	Absent	Low

- ^a Often a mixture of noncomedo patterns.

- ^b Solid, cribriform, papillary, or focal micropapillary.

- SOURCE: Adapted with permission from Connolly JL, Nixon AJ:

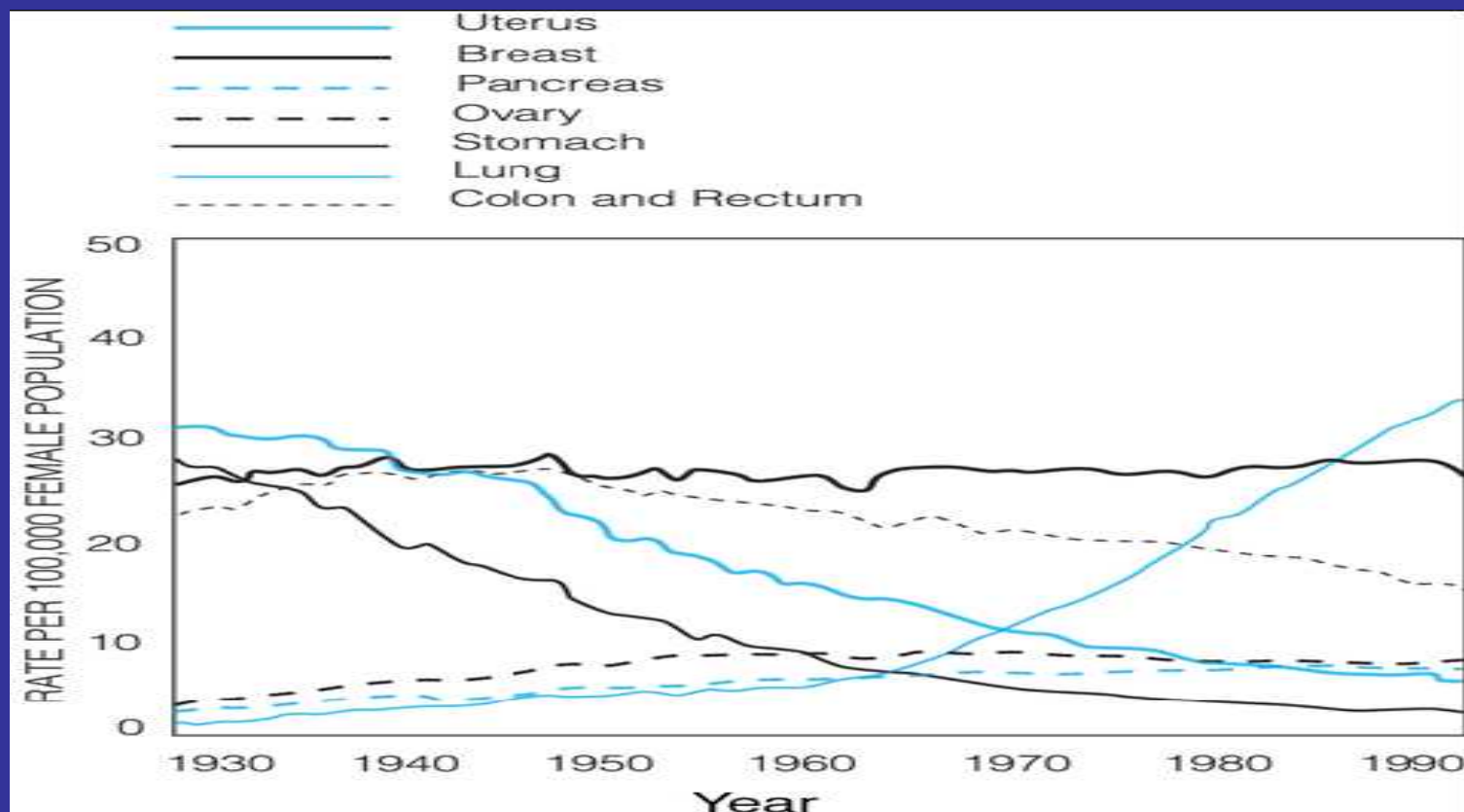
- Ductal carcinoma in situ of the breast: Histologic subtyping and

- clinical significance. *PPO Updates* 10 (10):1, 1996.

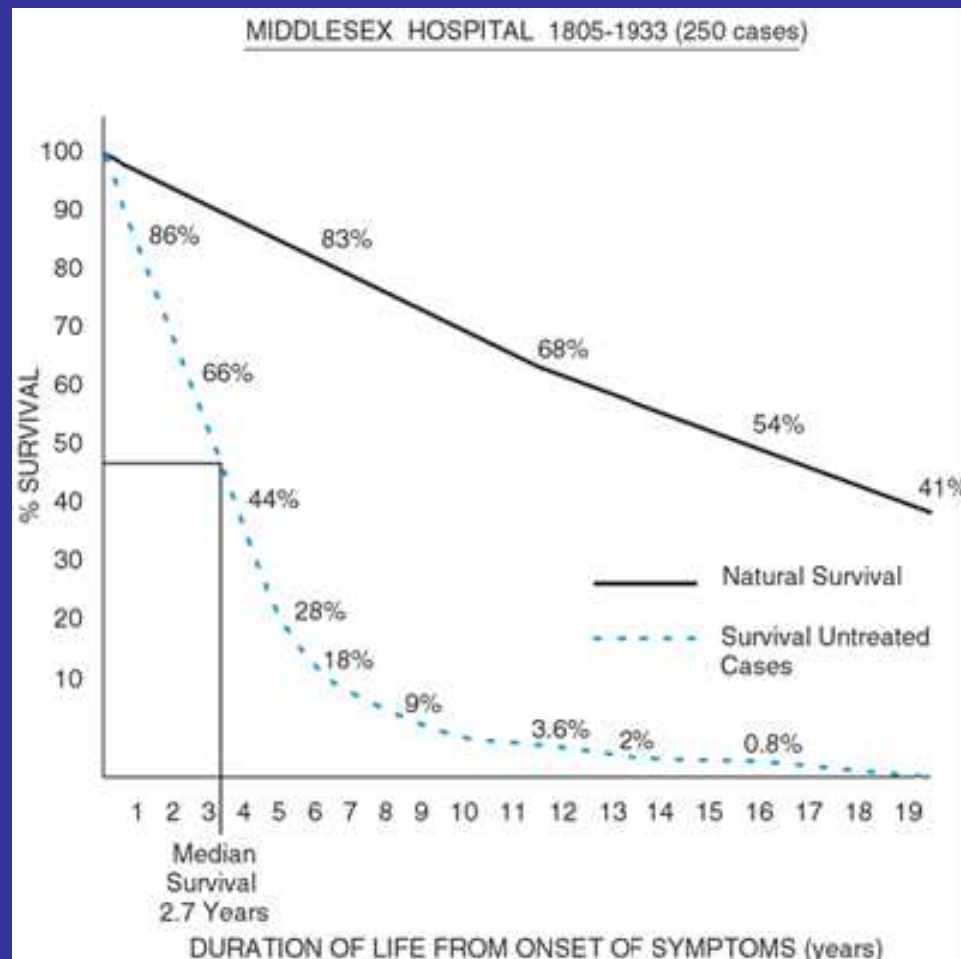
Table 16-9 Salient Characteristics of In Situ Ductal (DCIS) and Lobular (LCIS) Carcinoma of the Breast

	» <i>DCIS</i>	<i>LCIS</i>	
• Age (years)	44-47		54-58
• Incidence ^a	2-5%		5-10%
• Clinical signs	None		Mass, pain, nipple discharge
• Mammographic signs	None		Microcalcifications
• Premenopausal	2/3		1/3
• Incidence of synchronous invasive			
• Carcinoma	5%		2-46%
• Multicentricity	60-90%		40-80%
• Bilaterality 50-70% 10-20%			
• Axillary metastasis	1%		1-2%
• Subsequent carcinomas:			
• Incidence	25-35%		25-70%
• Laterality	Bilateral		Ipsilateral
• Interval to diagnosis	15-20 years		5-10 years

Death rates for cancer at selected organ sites in U.S. women. These are age-adjusted rates per 100,000 population. The uterine cancer death rate is derived by combining the cervix and corpus death rates. Note the steep rise in the lung cancer death rate after 1960. (*Reproduced with permission from Parker SL et al: Cancer statistics. CA Cancer J Clin 47:5, 1997.*)



Survival of women with untreated breast cancer
compared with natural survival. (*Reproduced with
permission
from Bloom et al.53*)



- REMEMBER:
- 80 percent of lumps biopsied are not cancerous.
- 10 percent of breast cancers do not form a hard lump.
- 90 percent of breast cancers are stony hard, anchored in surrounding tissues, usually painless, and do not change in degree of hardness during a menstrual cycle.
- Any lump or change needs a physician's evaluation – do not attempt to self diagnose.

Diagnostic Studies for Breast Cancer Patients

Cancer Stage

0 I II III IV

• History & physical	X	X	X	X	X
• CBC, platelets		X	X	X	X
• Liver function tests		X	X	X	X
• Chest x-ray		X	X	X	X
• Bilateral mammograms	X	X	X	X	X
• Hormone-receptor status		X	X	X	X
• HER2/neu expression		X	X	X	X
• Bone scans			X	X	X
• Abdominal CT scan or ultrasound or MRI				X	X

- aBone scan performed for stage II only if localized symptoms or elevated serum alkaline phosphatase.
- SOURCE: Adapted with permission from Carlson RW et al: Breast cancer, in *National Comprehensive Cancer Network (NCCN) Practice Guidelines in Oncology* Vol. 2, 2002.
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Breast cancer. A. Craniocaudal mammography view of a palpable mass (*arrows*). B. Ultrasound image demonstrates a solid mass with irregular borders (*arrows*) consistent with cancer.

