

DCIS vs. LCIS

- Some cases are diagnostic problems
- Problematic lesions increasingly common in breast biopsies performed because of mammographic microcalcifications

DCIS vs. LCIS

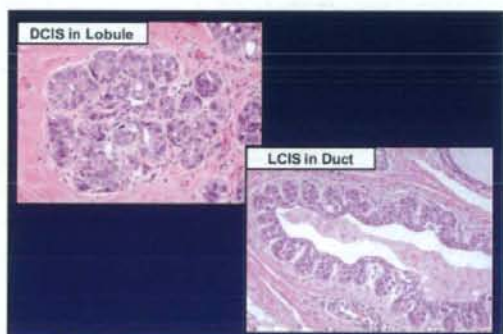
Why is this important?

Differences in management

<p>DCIS</p> <p>↓</p> <p>Viewed as precursor</p> <p>↓</p> <ul style="list-style-type: none"> • Complete eradication • Margin evaluation 	<p>LCIS</p> <p>↓</p> <p>Viewed as risk factor</p> <p>↓</p> <ul style="list-style-type: none"> • Observation ± tam • No margin evaluation
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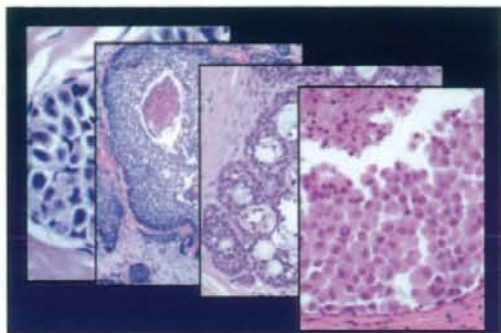
Problems in Distinguishing DCIS from LCIS

- Overlap in distribution within ductal-lobular system
 - DCIS can involve identifiable lobules
 - LCIS can involve ducts
- Some LCIS lesions have features more commonly associated with DCIS
- Some DCIS lesions have features more commonly associated with LCIS



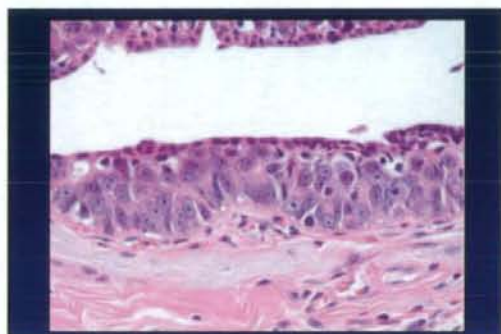
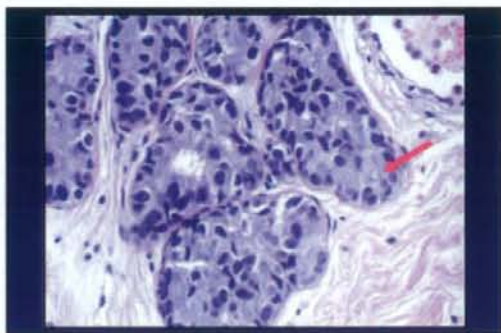
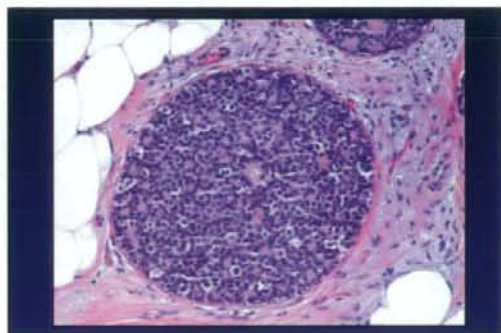
Features Usually Associated with DCIS That May Be Seen in LCIS

- Nuclear pleomorphism
- Comedo necrosis
- Cribriform-like pattern
- Prominent apocrine differentiation



Features Usually Associated with LCIS That May Be Seen in DCIS

- Small monomorphic cells
- Solid growth pattern
- Intracytoplasmic vacuoles
- Pagetoid involvement of ducts



E-cadherin Staining May Be of Help in Problematic Cases

DCIS: positive

LCIS: negative



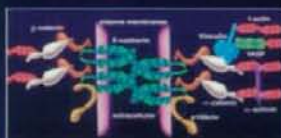
Limitations in Use of E-cadherin Immunostaining

- Loss of E-cadherin expression by IHC characteristic of LCIS, but.....
- Presence of E-cadherin expression does not preclude diagnosis of LCIS in the context of appropriate histologic features
(i.e., E-cad positive \neq DCIS)

E-Cadherin Staining in LCIS

- Residual ductal epithelial cells
- Myoepithelial cells
- LCIS cells
 - Extent of E-cad loss by IHC may be related to molecular mechanism of E-cad inactivation

P120 Catenin



Dabbs, A.J.S.P, 2007

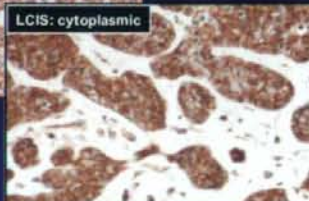
- Present at junction of cell membrane and cytoplasm
- Involved in linking E-cadherin to actin cytoskeleton
- Normal cells/ductal lesions:
 - membranous distribution
- Lobular lesions:
 - cytoplasmic distribution

Ductal lesions: membranous



P120 catenin

LCIS: cytoplasmic

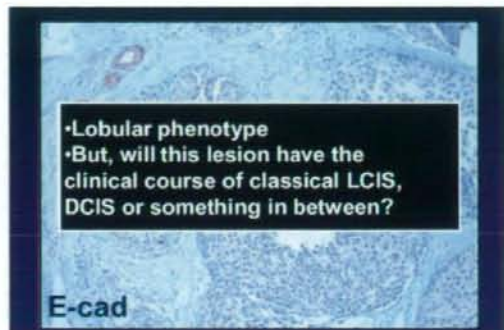
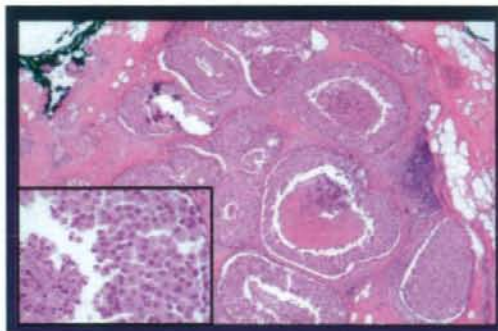


E-cadherin and P120 Catenin in DCIS and LCIS

	DCIS	LCIS
E-cadherin	positive	negative
P120 catenin	membranous	cytoplasmic

Practical Considerations

- Current understanding of clinical behavior of DCIS and LCIS based on follow-up studies of lesions classified according to histologic features alone ("classical" forms of disease)
- The most appropriate management of patients with histologically ambiguous in situ lesions currently not known



Conclusions

- Diagnosis of DCIS straightforward in most cases
- Problems with both under-diagnosis and over-diagnosis
- In order to properly study DCIS, we need to be sure that what we are studying *is* DCIS
- With careful attention to histologic cues and judicious use of appropriate immunostains, correct diagnosis should be possible in virtually all cases