BENIGN HIGH RISK LESIONS ALWAYS OPERATE?

Michael Alvarado, M.D

Detection

- Overdiagnosis
- Identify lesions that have no clinical relevance
- Increased societal cost
- Decreased quality of life

Incidence of DCIS

Atypical Ductal Hyperplasia
Flat Epithelial Atypia
All Atypia Diagnosed at Core Biopsy Do Not Need Surgical Excision

- Case Control Study
- 151 stereotactic core biopsies
- 52 cancer diagnoses
  - 40 in-situ (36 Low Grade), 12 invasive
- 99 excisions no cancer

Lesions defined
- Flat epithelial atypia, ADH, lobular neoplasia, mixed

Isabelle de Mascarel et al., Mod Pathol, 2010

Isabelle de Mascarel et al.

- Multivariate analysis
  - BIRADS
  - Size of radiological finding
  - Type
  - Size of lesion
  - Number of cores with atypia
  - Presence of calcifications in atypia
- >3 foci of atypia
- ADH alone or combination
- BIRADS 5

Conclusions

- No cancer at excision
  - Flat epithelial atypia alone (n=24)
  - Absence of any of 3 sig factors (n=31)
    - ADH, >3 foci, BIRADS 5

- Presence of one factor
  - Cancer 24/59

- Presence of two factors
  - Cancer 15/23

- Presence of three factors
  - Cancer 13/14

- No excision
  - Flat epithelial atypia alone
  - Zero factors identified

- Excise
  - Two or three factors identified

- Excise/no excision?
  - One factor
Lobular Neoplasia

- Retrospective review single institution
- 35 cases reviewed (9 ALH, 26 LCIS)
- 26 underwent excision
- 24 with focal LN
- 2 with diffuse neoplasia

Esserman et al., Breast J, 2008

Lobular Neoplasia cont.

- Both pts with diffuse LN
  - Invasive lobular carcinoma
- 82% the calcifications were incidental to LN
- Patients followed clinically (no excision)
  - 9 patients w/ median f/u = 51 months
  - No biopsy and no clinical finding

Esserman et al., Breast J, 2008

Conclusions

- Diffuse LN is an indication for surgical excision
- Focal LN and the absence of discordant findings may be an indication to follow clinically (calcifications incidental to LN)

Esserman et al., Breast J, 2008

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Table 1. Results of surgery following core biopsy diagnosis of LCIS/LN (modified from Jacobs et al.

<table>
<thead>
<tr>
<th>Authors</th>
<th>LCIS</th>
<th>LCIS + LN</th>
<th>LN only</th>
<th>LN + LCIS</th>
<th>LN + ADH</th>
<th>LN + ILC</th>
<th>LN + DCIS</th>
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<tbody>
<tr>
<td>Littman et al.</td>
<td>16</td>
<td>14 (88%) + 5</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>ALH</td>
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<td>4 (100%)</td>
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<tr>
<td>Dunn et al.</td>
<td>5</td>
<td>6 (100%)</td>
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<tr>
<td>Phang et al.</td>
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<tr>
<td>Buerger et al.</td>
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<td>10 (100%)</td>
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<tr>
<td>Leibovitch et al.</td>
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<tr>
<td>Stein and Rosen</td>
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<tr>
<td>W. et al.</td>
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<tr>
<td>O'Brien et al.</td>
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<td>7 (100%)</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>


Esserman et al., Breast J, 2008
Are We Overtreating Papillomas Diagnosed on Core Biopsy?

- Single institution cohort of 193 pts
- Core biopsy revealed papillary lesion
- 82 pts underwent surgical excision
- 111 pts underwent observation

Papillary Lesions

- Upgraded at excision
  - 2 IDC
  - 5 DCIS
  - 1 papillary carcinoma

- Delayed excision in 2 patients
  - DCIS excised at 20 mo secondary to new finding
  - Intraductal papillary ca excised at 22 mo

Conclusion: Papillary Lesions diagnosed at CNB should be excised

Question:
- If observation group only had 2 upgrades at median f/u 51 months, why excise?
- Bias in decisions?
- Is there a group to safely watch?
Papillary Lesions Initially Diagnosed at US-guided Biopsy—Rate of Malignancy Based on Subsequent Surgical Excision

- Single institution review
- 85 papillary lesions identified
  - 73 benign papilloma
  - 12 atypical papillary lesion
- All pts recommended excision
  - 60 underwent surgery

Results at excision
- Benign papilloma in 34 cases
- No residual lesion in 15 cases
- Atypical papillomas in 9 cases
- DCIS in 2 cases

Upgrade rate for benign papilloma = 0%
Upgrade rate for atypical papilloma = 18.2%

Chang et al., Ann Surg Onc, 2011

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CLAIRIFYING THE RISK OF BREAST CANCER IN WOMEN WITH ATYPICAL BREAST LESIONS

SB Coopey, E Mazzola, JM Buckley, J Sharko, AK Belli, EMH Kim, F Polufriaginof, G Parmigiani, JE Garber, BL Smith, MA Gadd, MC Specht, AJ Guidi, CA Roche, KS Hughes

Division of Surgical Oncology, Massachusetts General Hospital, Boston, MA; Department of Biostatistics & Computational Biology, Dana-Farber Cancer Institute, Boston, MA; Department of Medical Oncology, Dana-Farber Cancer Institute, Boston, MA; Department of Pathology, Newton-Wellesley Hospital, Newton, MA

San Antonio Breast Cancer Symposium—December 6-10, 2011
Certain pathologic diagnoses significantly increase breast cancer risk

- Atypical ductal hyperplasia (ADH)
- Atypical lobular hyperplasia (ALH)
- Lobular carcinoma in situ (LCIS)
- Borderline DCIS/Severe ADH

Reported level of risk varies
Effect of chemoprevention not studied in practice

Results

- 76,333 breast pathology reports
- 42,950 individuals
- 2942 women with atypical breast lesions

- Mean Age Dx: 53 years (range: 19-93)
- Mean FU all: 66 months

Breast Cancer Risk by Atypia Type
No Chemoprevention (All years)

<table>
<thead>
<tr>
<th>Atypia Type</th>
<th>5-Year</th>
<th>10-Year</th>
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</thead>
<tbody>
<tr>
<td>ADH</td>
<td>4.5%</td>
<td>17.3%</td>
</tr>
<tr>
<td>ALH</td>
<td>10.9%</td>
<td>20.7%</td>
</tr>
<tr>
<td>LCIS</td>
<td>10.5%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Borderline</td>
<td>9.7%</td>
<td>26%</td>
</tr>
</tbody>
</table>

*ADH at 5 years only significant difference

Probability of Cancer after Atypia Diagnosis With and Without Chemoprevention, 1999 and Beyond

Chemoprevention
- Yes (n=466)
- No (n=1472)

- 4.1% without chemoprevention
- 8.3% with chemoprevention
- 21.3% without chemoprevention
- 7.5% with chemoprevention (p<0.05)
Chemoprevention Decreased Cancer Risk for all Atypia Types 1999 and Beyond

UCSF Practice
- Focal Lobular Neoplasia and no risk factors
  - Offer observation and chemoprevention discussion
- Papilloma-benign completely excised
  - Offer observation unless image/path discordant
- ADH
  - Age dependent and amount on CNB
- Flat epithelial atypia
  - Less likely to excise

Thank you