Diagnosis and Treatment of Patients with early and advanced Breast Cancer

Ductal Carcinoma in Situ (DCIS)
Duktales Carcinoma in situ (DCIS)

- Versions 2002–2019:
  Audretsch / Bauerfeind / Blohmer / Brunnert / Budach / Costa / Fersis / Friedrich / Gerber / Hanf / Junkermann / Kühn / Lux / Maass / Möbus / Mundhenke / Nitz / Oberhoff / Scharl / Schütz / Solomayer / Souchon / Thill / Thomssen / Wenz

- Version 2020:
  Friedrich / Gerber
Pretherapeutic Assessment of Suspicious Lesions (BIRADS 4-5)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Oxford LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography</td>
<td>4</td>
<td>C</td>
<td>++</td>
</tr>
<tr>
<td>• Magnification view of microcalcifications</td>
<td>1b</td>
<td>B</td>
<td>++</td>
</tr>
<tr>
<td>• Increased detection rate of G1/G2 DCIS by full-field digital mammography (versus screen-film)</td>
<td>2b</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>Stereotactic core needle / vacuum biopsy (VAB)</td>
<td>2b</td>
<td>B</td>
<td>++</td>
</tr>
<tr>
<td>• Specimen radiography</td>
<td>2b</td>
<td>B</td>
<td>++</td>
</tr>
<tr>
<td>• Marker (clip) left at biopsy site for localization if lesion is completely removed</td>
<td>5</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td>Assessment of extension</td>
<td>1b</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>• MRI</td>
<td>5</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td>Clinical examination</td>
<td>5</td>
<td>D</td>
<td>-</td>
</tr>
<tr>
<td>FNA / ductal lavage</td>
<td>5</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td>Interdisciplinary board presentation</td>
<td>5</td>
<td>D</td>
<td>++</td>
</tr>
</tbody>
</table>

Mammographie


Präoperatives MRT hat keinen Einfluss auf die LRR und das OS


**Molecular Subtyping**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
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</tbody>
</table>

- 108,196 patients from the SEER data base
- Retrospective analysis
- Breast cancer specific mortality 3.3%
- Increased in young women (< 35 years) and black ethnicity
- The risk of death increases after ipsilateral invasive recurrence HR 18 (95%CI, 14.0–23.6)
- Prevention of invasive recurrence by radiotherapy does not diminish mortality at 10 years

# Breast Cancer Mortality After a Diagnosis of Ductal Carcinoma In Situ


<table>
<thead>
<tr>
<th>Treatment</th>
<th>Cases, No</th>
<th>10-Year BCS Mortality (95% CI), %</th>
<th>Univariate HR (95% CI)</th>
<th>P Value</th>
<th>Multivariate HR (95%)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without radiotherapy</td>
<td>19762</td>
<td>0.9 (0.7 – 1.1)</td>
<td>1 [Reference]</td>
<td>0.22</td>
<td>0.81 (0.63 – 1.04)</td>
<td>0.10</td>
</tr>
<tr>
<td>With radiotherapy</td>
<td>42250</td>
<td>0.8 (0.7 – 1.0)</td>
<td>0.86 (0.67 – 1.10)</td>
<td>&lt; 0.001</td>
<td>1.20 (0.96 – 1.50)</td>
<td>0.11</td>
</tr>
<tr>
<td>All</td>
<td>63319</td>
<td>0.8 (0.7 – 1.0)</td>
<td>1 [Reference]</td>
<td></td>
<td>1 [Reference]</td>
<td></td>
</tr>
</tbody>
</table>

3 Adjusted for year of diagnosis, age of diagnosis, ethnicity, income, ER-status, tumor size and grade


5. Laura Esserman, Christina Yau. Rethinking the Standard for Ductal Carcinoma In Situ Treatment. JAMA Oncology Published online August 20, 2015.


Intraoperative Sonographie (darstellbarer Befund)

Sofortige Nachresektion bei knappen Resektionsrändern (Präparateradiographie)

Intraoperative Schnellschnittdiagnostik

Interdisziplinäre Tumorboard-Präsentation
# Surgical Treatment for Histologically Proven DCIS II

<table>
<thead>
<tr>
<th>Oxford LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>A</td>
<td>++</td>
</tr>
<tr>
<td>2b</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>2b</td>
<td>C</td>
<td>+</td>
</tr>
</tbody>
</table>

- **Histologically clear margins (pR0)**
- **Multifocal DCIS: BCS if feasible**
- **Re-excision required for close margin (≤ 2 mm in paraffin section)**
- **Mastectomy**
  - Large lesions confirmed by multiple biopsies; no clear margins after re-excision
- **SLNE**
  - Mastectomy
  - BCS
  - In case of DCIS in the male breast
- **ALND**

* Especially if postoperative radiation therapy is not performed
** Patients who present with a palpable mass have a significantly higher potential for occult invasion (26%), multicentricity and local recurrence.

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**Histologisch freie Resektionsränder (pR0)**


**Multifokalität: BET falls möglich (inkl. RT)**


Nachresektion bei knappem Resektionsrand (< 2 mm im Paraffinschnitt)


Mastektomie* (große Läsionen; keine sicheren Ränder im Nachresektat)


SLNE*


Mastektomie

DCIS beim Mann


BET


Axilladissektion


Fokalität


(mod.) Van Nuys Prognose Index und MSKCC Nomogramm


**Palpables DCIS**

Palpable + COX-2+p16+Ki-67+

Palpable + ER-, HER2+, +Ki-67+

**HER2-Überexpression**

ER/PgR (positiv vs. negativ)

**DCIS-Score**


2. Sarah Patricia Cate, Alyssa Gillego, Manjeet Chadha, et al. Does the Oncotype DCIS score impact treatment decisions? J Clin Oncol 31, 2013 (suppl 26; abstr 91)


**DCIS mit Mikroinvasion – Behandlung analog zum invasiven Karzinom**


Intrinsische Subgruppen (Luminal A,B, HER+, triple negativ)


Radiotherapie nach: Brusterhaltender Operation (BEO) (gesamte Brust, WBI)

1. EBCTCG Correa C et al. Overview of the randomized trials of radiotherapy in ductal carcinoma in situ of the breast. J Natl Cancer Inst Monogr. 2010 (41); 162 – 77
Mastektomie


Teilbrustbestrahlung


Intraoperative Strahlentherapie beim DCIS


Tamoxifen (nur ER+, nur BET)


7. Altundag K: Is it rational to extend the duration of preventive endocrine treatment in hormone receptor positive ductal carcinoma


Nach Radiatio

Einfache Mastektomie + SN B


Sekundäre Tumorektomie führt zu Rezidiven in bis zu 30 % der Fälle (NSABP B17)


Keine Radiotherapie

Therapieindikation wie bei primär Erkrankung