Duktales Carcinoma in situ (DCIS)
Duktales Carcinoma in situ (DCIS)

- **Versionen 2002–2018:**
  Audretsch / Blohmer / Brunnert / Budach / Costa / Fersis / Friedrich / Gerber / Hanf / Junkermann / Kühn / Lux / Maass / Möbus / Mundhenke / Nitz / Oberhoff / Scharl / Solomayer / Souchon / Thill / Thomssen / Wenz

- **Version 2019:**
  Bauerfeind / Schütz
### Präterapeutische Abklärung suspekter Läsionen (BIRADS 4)

<table>
<thead>
<tr>
<th>Oxford</th>
<th>LoE</th>
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<th>AGO</th>
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<td>Vergrößerungsauflnahmen von Mikroverkalkungen</td>
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<td>D</td>
<td>++</td>
</tr>
</tbody>
</table>

**Mammographie**


**Präoperatives MRT hat keinen Einfluss auf die LRR und das OS**


Molecular Subtyping
1. Steven A. Narod, MD, FRCPC; Javaid Iqbal, MD; Vasily Giannakeas, MPH; et al; JAMA Oncol. doi:10.1001/jamaoncol.2015.2510
Published online August 20, 2015.
1. Steven A. Narod, MD, FRCPC; Javaid Iqbal, MD; Vasily Giannakeas, MPH; et al; JAMA Oncol. doi:10.1001/jamaoncol.2015.2510
Published online August 20, 2015.


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


Operative Maßnahmen zur Therapie des histologisch gesicherten DCIS I

- **Exzision (drahtmarkiert)**
  - Oxford LoE GR AGO 2b B ++
- **Flankierende Drahtmarkierung bei großen Läsionen**
  - Oxford LoE GR AGO 3a C +
- **Präparatradiographie bei Drahtmarkierung**
  - Oxford LoE GR AGO 2b B ++
- **Intraoperative Sonographie (darstellbarer Befund)**
  - Oxford LoE GR AGO 3a C +/-
- **Sofortige Nachresektion bei knappen Resektionsrändern (Präparatradiographie)**
  - Oxford LoE GR AGO 1c B ++
- **Intraoperative Schnellschnittdiagnostik (Einzelfall für Schnittränder)**
  - Oxford LoE GR AGO 3a D +/-
- **Interdisziplinäre Tumorboard-Präsentation**
  - Oxford LoE GR AGO 2b C ++

Offene Biopsien suspekter Läsionen (mammographische Mikrokalkzifikationen, suspekter US, MRI etc.) ohne präoperative Stanzbiopsie sollten vermieden werden.

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**Exzision (drahtmarkiert)**

Flankierende Drahtmarkierung bei großen Läsionen

Präparatradiographie


Ohne Einfluss auf NRR


„A literature search was conducted for diagnostic studies up to April 2017 concerning SR for intra-operative margin assessment of breast lesions with pure DCIS or with DCIS components. Studies reporting sensitivity and specificity calculated using final pathology report as reference test were included. Due to improved imaging technology, studies published more than 15 years ago were excluded. Methodological quality was assessed using quality assessment of diagnostic accuracy studies-2 checklist. Due to clinical and methodological diversity, meta-analysis was considered not useful.

Results Of 235 citations identified, 9 met predefined inclusion criteria and documented diagnostic efficacy data. Sensitivity ranged from 22 to 77% and specificity ranged from 51 to 100%. Positive predictive value and negative predictive value ranged from 53 to 100% and 32 to 95%, respectively. High or unclear risk of bias was found in reference standard in 5 of 9 studies. High concerns regarding applicability of index test were found in 6 of 9 studies.

Conclusions The present results do not support the routine use of intra-operative specimen radiography to reduce the rate of positive margins in patients undergoing breast-conserving surgery for pure DCIS or the DCIS component in invasive cancer. Future studies need to differentiate between initial and final specimen margin involvement. This could provide surgeons with a number needed to treat for a more applicable outcome.“

Intraoperative Sonographie (darstellbarer Befund)

Sofortige Nachresektion bei knappen Resektionsrändern (Präparateradiographie)

Intraoperative Schnellschnittdiagnostik
Interdisziplinäre Tumorboard-Präsentation
Histologisch freie Resektionsränder (pR0)


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


**Nachresektion bei knappem Resektionsrand (< 2 mm im Paraffinschnitt)**


**besonders wenn nicht nachbestrahlt wird**


"The panelists emphasized that clinical judgment is necessary to determine whether patients with negative margin widths less than 2 mm require re-excision based on the long-term rates of local control seen in National Surgical Adjuvant Breast and Bowel Project"
(NSABP) trials, which used the negative margin definition of no ink on tumor [10] and on the results of the large single-institution study of Van Zee et al. [11] in which negative margin width was not a predictor of local recurrence in patients receiving radiotherapy after controlling for multiple clinical variables of interest. In the study of Van Zee et al., crude rates of local recurrence among the 2996 patients receiving radiotherapy were 10% for those with negative margins 2 mm or less in size, 7% for those with margins >2 mm, and 9% for margins >10 mm. Examples of factors to consider when deciding whether to re-excite a negative margin <2 mm include the extent of DCIS in proximity to the margin, which margin is close, the presence of residual calcifications on mammogram, the cosmetic impact of re-excision, and the patient's life expectancy.”

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


SNE*

Mastektomie

DCIS beim Mann

BET

Axilladissektion
Resektionsränder
Residualer tumorassoziierter Mikrokalk
Alter
Größe
Grading
Komedonekrose
Architektur

<table>
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<th>Prognostische Faktoren für das Auftreten eines ipsilateralen Rezidivs</th>
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<td>MSKCC Nomogram</td>
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<tr>
<td>Intrinsic Subgroups (Luminal A,B, HER+, triple negativ)</td>
<td>2b</td>
</tr>
</tbody>
</table>


Diagnostische Methode

1. Han JS, Molberg KH, Sarode V. Predictors of Invasion and Axillary Lymph Node Metastasis in Patients with a Core Biopsy Diagnosis of Ductal carcinoma In Situ: An Analysis of 255 Cases. The Breast Journal 2011; 17: 223-229


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)
6. Noh JM, Lee J, Choi DH, et al. HER-2 overexpression is not associated with increased ipsilateral breast tumor recurrence in DCIS
Radiotherapie nach: Brusterhaltender Operation (BEO) (gesamte Brust, WBI)


Cobleigh MA, Anderson SJ, Julian TB, et al. NSABP B-43: A phase III clinical trial to compare trastuzumab (T) given concurrently with radiation therapy (RT) to RT alone for women with HER2+ DCIS resected by lumpectomy (Lx). SABCS 2012; OT1-2-01


45. Giannakeas V, Sopik V, Narod SA. Association of Radiotherapy With Survival in Women Treated for Ductal Carcinoma In Situ With

Mastektomie


Sonderformen der Radiotherapie:

Teilbrustbestrahlung


**Hypofraktionierte Radiotherapie**


**Boost-RT des Tumorbettes**


**Intraoperative Strahlentherapie beim DCIS**

DCIS – Postoperative adjuvante Systemtherapie

- Postoperative endokrine Therapie hat keinen Einfluss auf das Gesamtüberleben. LOE 1a
- Postoperative endokrine Therapie kann einen geringen Effekt auf die ipsilateralen invasiven Rezidine haben. LOE 1a
- Endokrine Therapie hat einen Effekt auf die kontralaterale invasive Rezidivrate und die ipsilaterale und kontralaterale DCIS-Rezidivrate. LOE 1a
- The number needed to treat (für jedes In-Brust-Rezidiv) ist 15. LOE 1a
Tamoxifen (nur ER+, nur BET)


AI (wenn postmenopausal und Kontraindikationen gegen Tamoxifen)

Andere endokrine Optionen Trastuzumab (nur HER2+)

1. Cobleigh MA, Anderson SJ, Julian Tbet al. NSABP B-43: A phase III clinical trial to compare trastuzumab (T) given concurrently with radiation therapy (RT) to RT alone for women with HER2+ DCIS resected by lumpectomy (Lx). SABCS 2012; OT1-2-01


Low dose Tamoxifen (5mg) in premalignant lesions

- **N = 500**
- **Follow up 5.69 years**
- **EFS:** TAM 5.5% (14/253) vs. PLAC 11.3% (28/247)
- **Severe adverse Event with same incidence**
  - (Endometriumkarzinom TAM 1 vs. PLAC 0, thrombo-embolic event TAM1 vs. PLAC 1)
- **Adhärenz TAM 65% vs. PLAC 61%**  DeCensi et al, SABCS 2018

Nach Radiatio

Einfache Mastektomie
+ SNB


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


Keine Radiotherapie

Therapieindikation wie bei primär Erkrankung