Specific Sites of Metastases
Specific Sites Of Metastases
Local Approaches to Metastatic Disease

- **Versions 2002–2020:**
  Albert / Bauerfeind / Bischoff / Böhme / Brunnert / Dall / Diel / Fehm / Fersis / Friedrich / Friedrichs / Gerber / Hanf / Janni / Kolberg-Liedtke / Kreipe / Loibl / Lück / Lux / Maass / Oberhoff / Rezai / Rody / Schaller / Schütz / Seegenschmiedt / Solomayer / Souchon / Thomssen

- **Version 2021:**
  Mundhenke / Park-Simon / Thomssen

Specific Sites of Metastases

- Liver and lung metastases
- Malignant pleural and pericardial effusions
- Ascites
- Bone marrow involvement
- Soft tissue metastases
- Any other organs

See also chapters "CNS Metastases" and "Locoregional Recurrence (Loco-Regional Recurrence Treatment Options in Non Curative Cases)"
Histology

Local surgery
4. Soran A et al. A randomized controlled trial evaluating resection of the primary tumor in women presenting with de novo stage IV breast cancer; Turkish study (MF07-01). J Clin Oncol 34, 2016 (suppl; abstr 1005)
13. Khan SA Plenary Session ASCO 2020 Late Breaking Abstract 2

Radiotherapy in oligometastatic breast cancer
Overviews
**Local Therapy in Primary Metastatic Disease**

- **Surgery (R0) of the primary tumor (no OS Benefit)**
  - In case of symptoms by primary tumor
  - In case of bone metastases only
  - In case of visceral metastases
- **Axillary surgery for cN1**
- **Sentinel if cN0**
- **Radiotherapy of the primary tumor**
  - Alone (without surgery)
  - After local surgical treatment with BCS or mastectomy (according to adjuvant indication)

* Individualized procedure in case of oligometastatic disease

---

**Operation (R0) des Primärtumors**


7. Khan SA Plenary Session ASCO 2020 Late Breaking Abstract 2


Lokoregionäre Therapie (alleinige Bestrahlung vs OP+Bestrahlung vs OP) bei primär metastasiertem Mammakarzinom


3. Khan SA Plenary Session ASCO 2020 Late Breaking Abstract 2

Liver Metastases
Local Therapy

**Statements:**
Resection of liver metastasis (R0)
HR-positive: chemotherapy-sensitive, long disease-free interval, absence of extrahepatic disease, ≤ 3 metastases
HER2-positive: age < 50 y., metastasis < 5 cm, no further metastasis

**Regional chemotherapy**  3b  C  +/-

**Regional radiotherapy**
[SIRT, stereotactic body radiosurgery with volumetric intensity modulated arc therapy (SRS-VMAT), radiochemoembolization, other modalities]  3b  C  +/-

**Thermoablation**
(RFA, LITT, cryotherapy)  3b  C  +/-

**Diagnostics**

**Overview**

**Local surgery**

**Statement: Regional chemotherapy**

3. Eichler K et al. Transarterial chemoembolisation (TACE) with gemcitabine: phase II study in patients with liver metastases of breast

Statement: Regional radiotherapy

**Statement: Thermoablation**
Pulmonary Metastases
Local Therapy

- Before any surgery: staging and biopsy (CT-guided FNA / CNB or transbronchial FNA, EBUS)
- Resection of pulmonary metastases by VATS or conventional resection
  - In case of multi-locular metastatic disease
  - In case of single / few unilateral metastasis with curative intent
- Thermoablation (CT-guided RFA, LITT)
- Regional radiotherapy (e.g. stereotactic body radiosurgery with volumetric intensity modulated arc therapy (SRS-VMAT))

Vor Operation: Staging und Biopsie (fine-needle aspiration with CT-guidance or transbronchial needle aspiration)


**Statement: Thermoablation (CT-gesteuert RFA, LITT)**

**Statement: Regionale Radiotherapie**
If expected survival is short, less invasive procedures should be considered


VATS and Talcum-pleurodesis

Chemical pleurodesis

- Talcum powder
- Bleomycin, Doxycycline, Mitoxantrone
- Povidone-iodine (20 ml of 10% solution)

Serial thoracocentesis


Statement: Continuous pleural drainage
**Malignant Ascites**

**Local Therapy**

<table>
<thead>
<tr>
<th>Ascites:</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puncture, drainage in symptomatic patients</td>
<td>4</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td>Continuous drainage of ascites</td>
<td>3b</td>
<td>D</td>
<td>+</td>
</tr>
<tr>
<td>Systemic therapy</td>
<td>3b</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td>Local chemotherapy</td>
<td>3b</td>
<td>D</td>
<td>+/-</td>
</tr>
</tbody>
</table>

Bone Marrow Infiltration Associated with Pancytopenia

1. Weekly chemotherapy with*:  
   - Epirubicin, Doxorubicin, Paclitaxel  
   - Capecitabine  
   - HER2-positive:  
     - Add anti-HER2-treatment  
   - Hormone receptor-positive:  
     - Endocrine-based therapy

<table>
<thead>
<tr>
<th>Oxford</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>D</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>C</td>
<td>+</td>
</tr>
</tbody>
</table>

* Consider pre-treatment