Complementary Therapy
Survivorship
Complementary Therapy – Hormonal Treatment and Alternatives in Breast Cancer Survivors – Survivorship

- **Versions 2002–2017:**
  Albert / Bauerfeind / Blohmer / Fersis / Friedrich / Lück / Gerber / Göhring / Hanf / Janni / Kümmel / von Minckwitz / Oberhoff / Scharl / Schmidt / Schütz / Thomssen

- **Version 2018:**
  Kümmel / Hanf
CAM

„Integrative Oncology“

CAM
Complementary + alternative medicine

Complementary

*In addition to scientifically based medicine*

Alternative

*Instead of scientifically based medicine*

„Unconventional methods“

UCT
Unconventional Thx

Unconventional

*Unproven outsider methods*
General Considerations

- CAM instead of loco-regional interventions
- CAM instead of systemic treatment
- Patients should be asked and advised about their usage of CAM modalities
- *While on anti-cancer treatment:* beware of drug interactions
## Complementary Therapy Pre- and Postoperative

### Preoperative:
- **Hypnosis (reduces anxiety, pain, nausea)**
  - **Oxford LoE:** 1b
  - **GR:** B
  - **AGO:** +

### Postoperative:
- **Acupuncture (pain relief, anxiety)**
  - **Oxford LoE:** 1b
  - **GR:** B
  - **AGO:** +/-
- **Acupuncture (nausea, vomiting)**
  - **Oxford LoE:** 2b
  - **GR:** B
  - **AGO:** +
- **Massage therapy (pain relief)**
  - **Oxford LoE:** 2b
  - **GR:** C
  - **AGO:** +/-
- **Early postop. exercise reduces upper-limb dysfunction**
  - **Oxford LoE:** 1a
  - **GR:** A
  - **AGO:** +
  - (beware: increased wound drainage)
- **Prophylactic lymph drainage**
  - **Oxford LoE:** 1b
  - **GR:** B
  - **AGO:** -
Complementary Treatment
While on Cancer Treatment – Impact on Toxicity I

While on anti-cancer treatment: beware of drug interactions

- **Mistletoe (Viscum album)**
  - in order to reduce side effects
  - **Oxford**
    - LoE 1a
    - GR B
    - AGO +/-

- **Thymic peptides**
  - lowered risk of severe infections
  - **Oxford**
    - LoE 2a
    - GR B
    - AGO +/-

- **Ginseng**
  - in order to reduce cancer related fatigue; note: inhibits cytochrome P enzymes e.g. CYP 3A4
  - **Oxford**
    - LoE 2b
    - GR C
    - AGO -

- **Ganoderma Lucidum**
  - may improve fatigue, note: inhibits cytochrome P enzymes (e.g. CYP 3A4)
  - **Oxford**
    - LoE 2b
    - GR C
    - AGO -

- **L-Carnitine**
  - given for prevention of toxicity, however increased chemotherapy induced peripheral neuropathy
  - Improvement of cancer related fatigue
  - **Oxford**
    - LoE 1b
    - GR B
    - AGO --

- **Curcumin**
  - as an adjunct to reduce radio dermatitis
  - **Oxford**
    - LoE 1b
    - GR B
    - AGO +/-

- **Ginger**
  - as an adjunct to guidelines oriented medication to treat chemotherapy induced nausea & vomiting – Beware of drug interactions
  - **Oxford**
    - LoE 1b
    - GR C
    - AGO +/-
### Complementary Treatment While on Cancer Treatment – Impact on Toxicity II

<table>
<thead>
<tr>
<th>Antioxidant supplements</th>
<th>Oxford</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LoE</td>
</tr>
<tr>
<td>Antioxidant supplements</td>
<td>1b</td>
</tr>
<tr>
<td></td>
<td>2b</td>
</tr>
</tbody>
</table>

- Various antioxidative extracts to reduce anthracyclin-induced cardiotoxicity

| High dose vitamin C * | 1b     | C  | -   |
| High dose vitamin C * | 2b     | D  | -   |

| Vitamin E | 2b | D  | -   |
| Selenium for alleviating side effects of therapy | 1b | B  | -   |
| Co-Enzyme Q 10 (fatigue, QoL) | 1b | B  | -   |
| Proteolytic enzymes in order to reduce chemotherapy-induced toxicity | 3b | B  | -   |
| Chinese herbal medicine improves wound healing | 1b | B  | -*inf |
| Oxygen and ozone therapy | 5    | D  | -   |

**Note:**
- inf: i.v.-infusion (in Germany not approved)
- * treatment in clinical trials recommended
Additional Complementary Therapy
Side Effects Related to Cancer Treatments
e.g. Chemotherapy

- **Chinese medicinal herbs** to treat the side effects of chemotherapy in breast cancer patients
- **Homoeopathic medicines** for adverse effects of cancer treatments
  - Topical calendula (>= 20% Calendula amount) for prophylaxis of acute dermatitis during radiotherapy
  - Traumeel S® mouthwash to treat chemotherapy-induced stomatitis
- **Topical Silymarin** for prophylaxis of acute dermatitis during radiotherapy
- **Massage** to improve on fatigue, pain, anxiety, nausea
- **Transcutaneous Electrical Nerve stimulation (TENS)** against cancer pain

<table>
<thead>
<tr>
<th>Treatment</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese medicinal herbs</td>
<td>1b</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Homoeopathic medicines</td>
<td>1b</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Topical calendula</td>
<td>3a</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Traumeel S® mouthwash</td>
<td>2b</td>
<td>D</td>
<td>+/-</td>
</tr>
</tbody>
</table>
## Additional Complementary Therapy

### Side Effects Related to Cancer Treatments

**e.g. Chemotherapy**

<table>
<thead>
<tr>
<th>Oxford LoE</th>
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<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acupuncture in order to improve on</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Electro)-Acupuncture as adjunct to antiemetic treatment in case of Chemotherapy-induced nausea and vomiting</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer pain</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td>Aromatase-inhibitor – induced athralgia</td>
<td>1a</td>
<td>B</td>
</tr>
<tr>
<td>TENS – Transcutaneous Electrical Nerve Stimulations to relieve cancer pain</td>
<td>2b</td>
<td>D</td>
</tr>
<tr>
<td><strong>Fatigue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>1a</td>
<td>B</td>
</tr>
<tr>
<td>Cognitive dysfunction</td>
<td>5</td>
<td>D</td>
</tr>
<tr>
<td><strong>Menopause syndrome in Breast Cancer Patients</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to improve on frequency and severity of hot flashes</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td>Electro-Acupuncture to improve on sleep and hot flashes</td>
<td>2a</td>
<td>B</td>
</tr>
<tr>
<td><strong>Leucopenia (Moxibustion)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment of chemotherapy induced polyneuropathy</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td>prophylactically</td>
<td>2b</td>
<td>B</td>
</tr>
<tr>
<td>therapeutically</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chronic lymph edema after Breast Cancer Treatment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2b</td>
<td>B</td>
</tr>
<tr>
<td><strong>Acu-pressure in order to improve on</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea and vomiting as adjunct to antiemetic therapy</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td>Fatigue</td>
<td>1b</td>
<td>B</td>
</tr>
</tbody>
</table>
Complementary Treatment
Mind-Body Medicine I

MBSR (Mindfulness-Based Stress Reduction)
Program improves quality of life, coping strategies, attentiveness, lowers stress, anxiety, depression, fatigue and sleep disturbances

Physical exercise / sport
min. 150 min. moderate endurance training per week in combination with work out exercises (2x per week) improve quality of life, cardio-respiratory fitness, physical performance, sleep, fatigue, no higher risk of lymphedema
## Complementary Treatment

### Mind-Body Medicine II

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Oxford</th>
<th>LoE</th>
<th>GR</th>
<th>AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yoga</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improves sleep, quality of life, stress, anxiety, depression, fatigue, sleep</td>
<td>1b</td>
<td>A</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td><strong>Qi Gong</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May improve quality of life, fatigue, mood</td>
<td>2a</td>
<td>B</td>
<td>+/-</td>
<td></td>
</tr>
<tr>
<td><strong>Tai Chi</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improves quality of life, muscular strength, sleep</td>
<td>2a</td>
<td>B</td>
<td>+/-</td>
<td></td>
</tr>
<tr>
<td><strong>Hypnosis (in combination with cognitive training)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improves fatigue and muscle weakness under radiation therapy, also reduces distress</td>
<td>1b</td>
<td>A</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
CAM
Prevention of Recurrence/Improvement of Overall Survival I
Modifiable Lifestyle Factors

- Physical exercise
  (Equivalents to 3–5 hrs moderate walking per week improves DFS and OS, cardio-respiratory fitness, physical functioning)

- Smoking

- Alcohol consumption (>6 g/day)
Modifiable Lifestyle Factors
Nutrition after Breast Cancer Diagnosis
Prevention of Recurrence / Improvement of Overall Survival II

- Adherence to normal BMI / weight loss if overweight, irrespective of HR-status
  - Oxford Grade: 1a, AGO: ++

- Low fat diet
  - Dietary counseling recommended
  - Oxford Grade: 1a, AGO: +

- Increased fiber intake (e.g. Flaxseed)
  - Oxford Grade: 2a, AGO: +

- Adherence to general nutrition guidelines (e.g. DGE, WCRF) in sense of Mediterranean Diet
  - Oxford Grade: 2a, AGO: ++

- Dietary extremes
  - Oxford Grade: 2a, AGO: --
Complementary Treatment
Prevention of Recurrence / Improvement of Overall Survival III
Dietary Supplements – Herbal Therapies

Post treatment vitamin/antioxidant supplements doesn't appear to be associated with increased risk of recurrence (beware of drug/treatment interactions)

Smokers on antioxidant supplements are at higher risk for lung cancer

For Prevention of BC Recurrence:
- **Antioxidants**
  - 2a B +/−
  - **Orthomolecular substances** (Selenium, Zinc...)
  - 2b B +/−
  - **Vitamine supplementation in pts on a balanced diet** (esp. Vit C, E, D)
  - 2b B -
  - **Artificial carotenoids appear to be associated with worse outcome**
  - 3b B -
  - **Proteolytic enzymes** (Papain, Trypsin, Chymotrypsin)
  - 5 D -
  - **Soy-food** (natural source of phytoestrogens)
  - 2a B +/−
  - ‒ ‒ food or concentrates containing ≥ 100 mg) isoflavones per day
  - 2a B -
  - **Black Cohosh** (Cimicifuga racemosa)
  - 3b C +/−
  - **Mistletoe** (Viscum album)
  - 1b C -
  - **Thymic peptides** (impact on OS)
  - 2a B -
  - **Oxygen- and ozone therapy**
  - 5 D -
  - **Antioxidant supplements** (after completion of radiotherapy)
  - 2b B +/−
  - **Laetrile**
  - 1c D -
  - **Methadone**
  - 5 D -
  - **Cancer bush** (Sutherlandia frutescens),
  - **Devil's claw** (Harpagophytum procumbens),
  - **Rooibos tea** (Aspalathus linearis),
  - **Bambara groundnut** (Vignea subterranea)