Complementary Therapy

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

Versionen 2002–2016:
Albert / Bauerfeind / Blohmer / Fersis / Friedrich / Gerber / Göhring / Hanf / Janni / Kümmel / von Minckwitz / Oberhoff / Scharl / Schmidt / Schütz / Thomssen

Version 2017:
Gerber / Lück
„Alternative“ Therapies

„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

Problems of available studies: selection bias, small case numbers, short follow-up, contrary results etc.
General Considerations

- Alternative methods (CAM) instead of surgical treatment
- Alternative methods (CAM) instead of systemic treatment
- While on anti-cancer treatment: beware of drug interactions
Complementary Therapy
Pre- and Postoperative

Preoperative:

➤ Hypnosis (reduces anxiety, pain, nausea)  1b B +

Postoperative:

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

While on anti-cancer treatment: beware of drug interactions

- **Mistletoe (Viscum album)**
in order to reduce side effects
- **Thymic peptides**
  lowered risk of severe infections
- **Ginseng**
in order to reduce cancer related fatigue; note: inhibits cytochrome P enzymes e.g. CYP 3A4
- **Ganoderma Lucidum**
  may improve fatigue, note: inhibits cytochrome P enzymes e.g. CYP 3A4)
- **L-Carnitine**
  - given for prevention of toxicity, increased chemotherapy induced peripheral neuropathy
  - Improvement of cancer related fatigue
- **Curcumin**
as an adjunct to reduce radio dermatitis
- **Ginger**
  for chemotherapy induced nausea & vomiting

Oxford / AGO LoE / GR

<table>
<thead>
<tr>
<th>Complementary Treatment</th>
<th>Impact on Toxicity I</th>
<th>1a</th>
<th>2a</th>
<th>2b</th>
<th>1b</th>
<th>1b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mistletoe (Viscum album)</td>
<td>in order to reduce side effects</td>
<td>1a</td>
<td>B</td>
<td>+/-</td>
<td>1b</td>
<td>B</td>
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<td>C</td>
<td>-</td>
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<td>B</td>
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<td>C</td>
<td>-</td>
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<td>1b</td>
<td>B</td>
<td>--</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Improvement of cancer related fatigue</td>
<td>1b</td>
<td>B</td>
<td>-</td>
<td>1b</td>
<td>B</td>
</tr>
<tr>
<td>Curcumin</td>
<td>as an adjunct to reduce radio dermatitis</td>
<td>1b</td>
<td>B</td>
<td>+/-</td>
<td>1b</td>
<td>C</td>
</tr>
<tr>
<td>Ginger</td>
<td>for chemotherapy induced nausea &amp; vomiting</td>
<td>1b</td>
<td>C</td>
<td>+/-</td>
<td>1b</td>
<td>B</td>
</tr>
</tbody>
</table>
## Complementary Treatment Impact on Toxicity II

<table>
<thead>
<tr>
<th>Complementary Treatment</th>
<th>Oxford / LoE / AGO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antioxidant supplements</td>
<td>1b, B</td>
</tr>
<tr>
<td>High dose vitamine C</td>
<td>1b, C</td>
</tr>
<tr>
<td>Vitamine E</td>
<td>2b, D</td>
</tr>
<tr>
<td>Selenium for alleviating side effects of therapy</td>
<td>1b, B</td>
</tr>
<tr>
<td>Co-Enzyme Q 10 (fatigue, QoL)</td>
<td>1b, B</td>
</tr>
<tr>
<td>Proteolytic enzymes in order to reduce chemotherapy-induced toxicity</td>
<td>3b, B</td>
</tr>
<tr>
<td>Chinese herbal medicine improves wound healing</td>
<td>1b, B</td>
</tr>
<tr>
<td>Oxygen and ozone therapy</td>
<td>5, D</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Oxford LoE / AGO LoE / GR</th>
<th>Grade</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese medicinal herbs to treat the side effects of chemotherapy in breast cancer patients</td>
<td>1b B -</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Homoeopathic medicines for adverse effects of cancer treatments</td>
<td>1b B +/-</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>- Topical calendula (&gt;= 20% Calendula amount) for prophylaxis of acute dermatitis during radiotherapy</td>
<td></td>
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<tr>
<td>- Traumeel S® mouthwash to treat chemotherapy-induced stomatitis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topical Silymarin for prophylaxis of acute dermatitis during radiotherapy</td>
<td>3a B +/-</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>Acupuncture in order to improve on</td>
<td>1a B +</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>- Chemotherapy-induced &gt;=nausea and vomiting</td>
<td>5 D +/-</td>
<td>D</td>
<td>+/-</td>
</tr>
<tr>
<td>- Cognitive dysfunction</td>
<td>1a B +</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>- Fatigue</td>
<td>1a B +/-</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>- Pain</td>
<td>1a B +</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>- Leucopenia (Moxibustion)</td>
<td>2b B +/-</td>
<td>B</td>
<td>+/-</td>
</tr>
<tr>
<td>- Hot flashes</td>
<td>2b B +</td>
<td>B</td>
<td>+</td>
</tr>
<tr>
<td>- Treatment of chemotherapy induced polyneuropathy</td>
<td>2b^a B -</td>
<td>B</td>
<td>-</td>
</tr>
</tbody>
</table>
Complementary Treatment
Mind-Body Medicine I

MBSR (Mindfulness-Based Stress Reduction)
Programme improves quality of life, coping strategies, attentiveness, lowers stress and depressive syndromes

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-respirat. fitness, physical performance and fatigue, no higher risk of lymphedema
Complementary Treatment
Mind-Body Medicine II

- Yoga
  - Improves sleep, quality of life, stress, anxiety, depression, fatigue
    - Oxford / AGO
      - LoE / GR
      - 1b
      - A
      - +

- Qi Gong
  - May improve quality of life, fatigue, mood
    - Oxford / AGO
      - LoE / GR
      - 2a
      - B
      - +/-

- Tai Chi
  - Improves quality of life, physical performance
    - Oxford / AGO
      - LoE / GR
      - 2a
      - B
      - +/-

- Hypnosis (in combination with cognitive training)
  - Improves fatigue and muscle weakness under radiation therapy, also reduces distress
    - Oxford / AGO
      - LoE / GR
      - 1b
      - A
      - +
### Modifiable Lifestyle Factors
#### Prevention of Recurrence/ Improvement of Overall Survival I

<table>
<thead>
<tr>
<th>Lifestyle Factor</th>
<th>Oxford / AGO</th>
<th>LoE / GR</th>
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<tr>
<td>Physical exercise</td>
<td>1a A ++</td>
<td></td>
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<tr>
<td>(Equivalents to 3–5 hrs moderate walking per week improves DFS and OS, cardio-respiratory fitness, physical functioning)</td>
<td></td>
<td></td>
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<tr>
<td>Smoking</td>
<td>2b A +/-</td>
<td></td>
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<tr>
<td>Alcohol consumption (&gt;6 g/day)</td>
<td>2b A +/-</td>
<td></td>
</tr>
</tbody>
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- **Physical exercise**: (Equivalents to 3–5 hrs moderate walking per week improves DFS and OS, cardio-respiratory fitness, physical functioning)
- **Smoking**: 2b A +/-
- **Alcohol consumption (>6 g/day)**: 2b A +/-
Modifiable Lifestyle Factors

Nutrition after Breast Cancer Diagnosis
Prevention of Recurrence / Improvement of Overall Survival

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

- Low fat diet
dietary counseling recommended
  - 1a A +

- Avoid high-fat dairy food
  - 2b C +

- Flaxseed / increased fibre intake
  - 2a B +

- Adherence to general nutrition guidelines (e.g. DGE, WCRF)
  - 2a B ++

- Dietary extremes
  - 1b B - -
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
- Orthomolecular substances (Selenium, Zinc...)
- Vitamine supplementation in pts on a balanced diet (esp. Vit C, E, D)
- Artificial carotenoids appear to be associated with worse outcome
- Proteolytic enzymes (Papain, Trypsin, Chymotrypsin)
- Soy-food (natural source of phytoestrogenes)
- Concentrates containing ≥ 100 mg) isoflavones
- Black Cohosh (Cimicifuga racemosa)
- Mistletoe (Viscum album)
- Thymic peptides (impact on OS)
- Oxygen- and ozone therapy
- Antioxidant supplements (after completion of radiotherapy)
- Laetrile
- Methadon
- Cancer bush (Sutherlandia frutescens), Devil's claw (Harpagophytum procumbens), Rooibos tea (Aspalathus linearis), Bambara groundnut (Vignea subterranean)
Complementary Treatment
Cancer Pain Reduction

- Acupuncture for cancer pain in adults

- Transcutaneous electric nerve stimulation (TENS) for cancer pain in adults

- Cave: No delay in diagnostic process

Oxford / AGO LoE / GR

1a B +/-

2b D +/-
Further information:

Screened Data Sources:
Pubmed  2012 - 01/2017
ASCO  2015 – 2016
SABCS  2015 – 2016
EBCC  2015 – 2016
Cochrane library: summary Jan. 2017:

No references
Further information:

The term „alternative therapies“ has to be more precisely defined. The above scheme divides the subject into two main aspects:

- **UCT** refers to unconventional therapies with unproven methods; they frequently include outsider methods with possible considerable inherent risks.

- **CAM** includes both alternative therapies, which are used instead of conventional, scientifically based medicine, and complementary methods, which are used in addition to conventional methods. While conventional clinicians tend to more readily approve of the complementary approach than one of the other options, complementary approaches, if administered simultaneously with conventional therapies, always carry the risk that the treatments unexpectedly interfere with each other to produce untoward effects, i.e., drug interactions with partially incalculable outcomes.

*No references*
General Considerations (4/14)

No further information

References:


Complementary Therapy Pre- and Postoperative (5/14)

No further information

References:

Hypnosis


Acupuncture and Postoperative Nausea and Vomiting


Massage Therapy


Postoperative exercise


Prophylactic lymph drainage


Complementary Treatment. Treatment phase. Impact on Toxicity I (6/14)

No further information

References:

General:


Mistletoe:


Thymus:


Ginseng, Ganoderma lucidum:


L-Carnitine:


Curcumin:

**Complementary Treatment. Treatment phase. Impact on Toxicity II (7/14)**

No further information

**References:**

**General:**


**Antioxidant supplements**


Vitamin C


Selen


Coenzym Q10

Proteolytic enzymes and toxicity of chemotherapy:


Bromelain


Chinese herbal medicine and wound healing

Additional Complementary Therapy Side Effects Related to Cancer Treatments - e.g. Chemotherapy

(8/14)

No further information

References:

Chinese medicinal herbs


Homeopathic medicines for adverse effects of cancer treatments


Topical use of Silymarin


Acupuncture


Chemotherapy-induced Nausea and Vomiting

Cognitive dysfunction


Fatigue


Pain


Leucopenia


Chemotherapy induced peripheral neuropathy

References:

Mind-Body Medicine (MBM)


MBSR


Physical exercise


Statement on quality of life


Cardio respiratory Fitness / Physical Functioning

Fatigue


Complementary Therapies - Mind-Body-Medicine II (10/14)

No further information

References:

General


Yoga


Qigong

Tai Chi


Hypnosis


No further information

References:

Physical exercise


**Improvements in DFS and OS, prevention of recurrence**


Smoking


Alcohol


Reference:

Adherence to normal body weight/BMI:


Avoidance of high fat dairy products:


Lignans/ flaxseed:


Adherence to general nutrition – guidelines:

Complementary Treatment - Prevention of Recurrence / Improvement of Overall Survival III Dietary Supplements – Herbal Therapies (13/14)

No further information

References:

General:


Post treatment vitamin and/or antioxidant supplements:


Soy as normal part of the diet/soy concentrates:


Black cohosh:


Laetrile treatment for cancer:


St John’s Wort:

2. Schellander R, Donnerer J: Antidepressants: clinically relevant drug interactions to be considered. 

**Red clover:**


**Dong Quai:**

Ginseng root:


Bromelain+Papain+Selen+Lektin bei AI-induced athralgia

Complementary Treatment: Cancer Pain Reduction (14/14)

No further information

References:

Acupuncture:

Transcutaneous electric nerve stimulation (TENS) for cancer pain in adults:

