

Complementary medicine during radiotherapy

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Treatment concept

- Multi-modal, individualized
- 3 pillars of evidence based medicine
 - Values and beliefs of patients
 - Medical experience
 - Evidence from clinical research

Medical specialization

- Supportive care for cancer patients
- Chronic pain



The Context of Cancer

Meta-analyses: studies from 18 countries (152 studies, N > 65,000)
complementary and integrative medicine (CIM) use in cancer patients

Mean: 40%

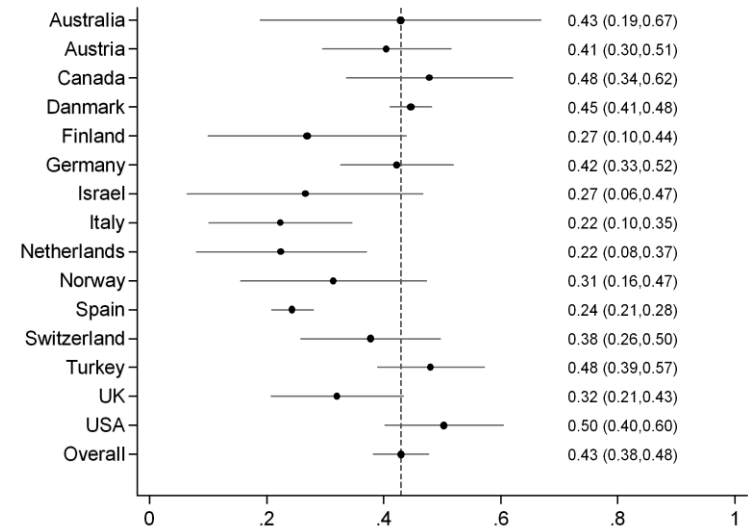
25% 1970 – 1980

32% around 1990

49% after 2000

Most CIM trials with breast cancer patients

Breast cancer patients high usage²



¹Horneber et al Integr Cancer Ther 2011

²Abdallah et al Int J of Gyn Cancer 2015

Definition of Integrative Oncology

“Integrative oncology is a patient-centered, **evidence-informed field** of cancer care that utilizes mind and body practices, natural products, and/or lifestyle modifications from different traditions **alongside conventional cancer treatments**.

Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer care continuum, and to empower people to prevent cancer and become active participants before, during, and beyond cancer treatment.”

Topics

- Hypnosis
- Acupuncture and acupressure
- Mind body medicine (incl. yoga and mindfulness)
- Supplements and phytotherapy
- Cancer related fatigue (CRF)

Hypnosis for Emotional Distress

Surgical and other medical procedures:

- Systematic Review: 26 RCTs (1984-2008, N=2342 patients)¹
 - Hypnosis before surgical and non-surgical procedures
 - Positive effects on distress
 - Effect size 0.88 (95% CI = 0.57-1.19)
 - Children > adults
 - Before procedure > after procedure

Radiotherapy in breast cancer patients

- RCT (n=100): CBT + Hypnosis vs. attention control
 - Mid-treatment (d = 0.54)
 - Conclusion of treatment (d = 0.64)
 - 4 weeks following treatment (d = 0.65)

Acupuncture

- Relatively safe¹
- > 60% of NCI designated CCCs recommend acupuncture for symptom management²

Example Breast Cancer

Indication	Recommendation ³	
	all	individual
• CINV	✓	
• Anxiety		✓
• Depression		✓
• CRF		✓
• Pain		✓
• Quality of life		✓
• Hot flushes		✓

- Pain: in addition to medication⁴
 - Earlier onset of pain relief (SMD 1.06; 1.34-0.79)
 - Longer effect (SMD 1.03 ; 1.57-0.49)



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¹Witt et al Forsch Komplmed 2009

²Brauer et al J Altern Complement Med 2010

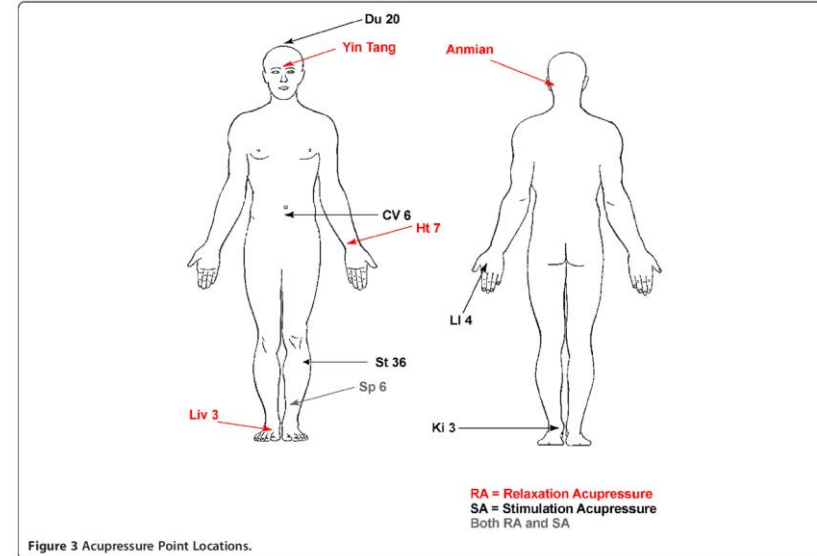
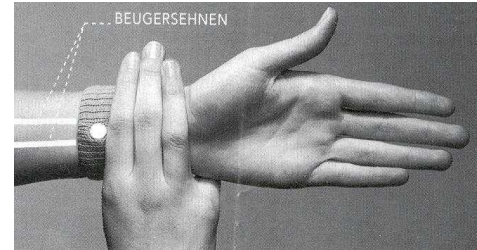
³Witt & Cardoso Breast 2016

⁴Hu et al Evid Based Complement Alternat Med 2016

Acupressure

Example Breast Cancer

- Safe
- CINV¹
- CRF²
 - 12 months after treatment
 - N=375 breast cancer patients
 - 1x/day, 3 min/point over 6 weeks
 - Control: usual care
 - Responders (normal BFI scores)
 - Usual Care 30%
 - Stimulating acupressure 60%
 - Relaxing acupressure 66%



Mind Body Medicine (MBM)

- Concept developed by Dr. Herbert Benson
Harvard Medical School
- *“an innovative, integrative concept that bridges between mind and body and emphasis self care. Combines modern scientific knowledge and best practices from complementary medicine, psychology and nutrition and sports science.”*
- One-to-One or group consultations



Swiss Mind Body Medicine Health
Professional Association

CAS “Health psychological life style change and
Mind Body Medicine (University of Zurich)”

Mind Body Medicine



Mind Body Medicine Group 1 Session per week (3.5 hours)

min	Session 1	2	3	4	5	6	7	8	9	10
20	Arrival	Movement exercises								
40	Getting to know each other	Weekly review								
45	Introduction Diet & exercise	Exercises	Physician group visit	Exercises	Physician group visit	Exercises	Physician group visit	Exercises	Physician group visit	Summary
15	Break									
45	Exercises & aims	Stress regulation	Perception and evaluation 1	Perception and evaluation 2	Mindfulness and pleasure	Mindfulness movements	Inside communication	Outside communication	Optional theme	Focus group
45	Relaxation exercises									

Physicians consultations: Information about mistletoe treatment, supplements, fatigue, nutrition, interactions of herbs and nutrients with chemotherapy

Mindfulness Based Stress Reduction (MBSR)

- "mindfulness means **paying attention** in a particular way; **on purpose**, in the **present moment**, and **non judgmentally**." (*Jon Kabat-Zinn*)
- Mindfulness based stress reduction (MBSR) program 8 weeks
- **Meta-analyses: moderate effect sizes for:**¹
 - Stress 0.51 (95% KI 0.36;0.67)
 - Depression 0.37 (0.28;0.45)
 - Anxiety 0.49 (0.37;0.61)
 - Quality of life 0.39 (0.08;0.70)



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Example Breast Cancer	
Indication	Recommendation ³ all
• Anxiety	✓
• Depression	✓
• Quality of life	✓
• Stress	✓

- Mechanisms: attention regulation, body awareness, emotion regulation, change in perspective on the self³

Yoga



Example Breast Cancer

Indication	Recommendation ³	
	all	individual
• Anxiety	✓	
• Depression	✓	
• Quality of life	✓	
• CRF		✓
• Insomnia		✓

- Different forms of yoga (gentle to athletically)
- Instructor should have experience with cancer patients
- Smaller groups are preferable

Integrative CRF Treatment Program

Systematically developed with full stakeholder engagement

Basic treatment

Choice of additional treatments

Treatment of severe CRF

Article

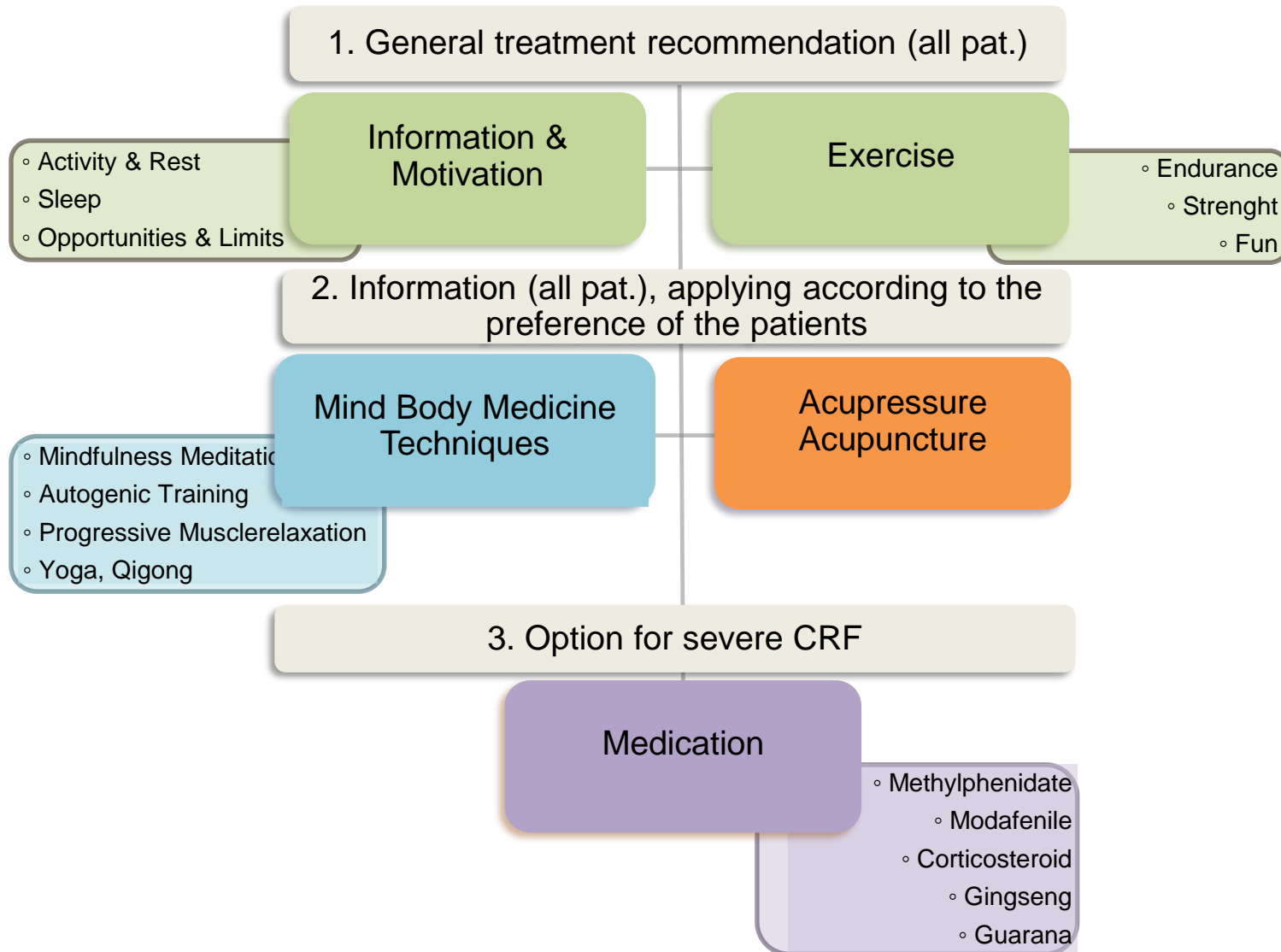
Developing an Integrative Treatment Program for Cancer-Related Fatigue Using Stakeholder Engagement – A Qualitative Study

Claudia Canella, MA^{1,2}, Michael Mikolasek, MSc^{1,2}, Matthias Rostock, MD^{1,2,3}, Jörg Beyer, MD¹, Matthias Guckenberger, MD¹, Josef Jenewein, MD¹, Esther Linka, MSc, MAS, RN¹, Claudia Six, MAS⁴, Sarah Stoll, MAS⁵, Roger Stupp, MD¹, and Claudia M. Witt, MD, MBA^{1,2,6,7}

3 treatment levels

Integrative Cancer Therapies
1–12
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Integrative CRF Treatment Program

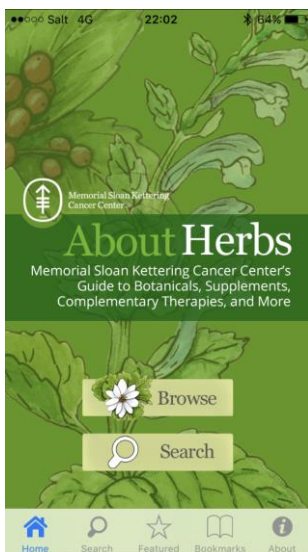


Supplements and Phytotherapy

- Good knowledge needed
- Interactions possible
- Information:



www.cam-cancer.org



<https://www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs>

Summary

- There are safe and effective interventions from complementary medicine that can be used in addition to radiotherapy
- Further research is needed