Complementary and Alternative Therapies: Myths, Realities and Opportunities

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Learning Objectives

• Understand current use of CAM/Integrative Medicine in the U.S.
• Develop practical approach to assessing risks and benefits of various therapies
• Define ways to incorporate evidence-based therapies for personal well-being (patient, survivor, and/or caregiver)

CAM Use in Lymphoma Survivors

• Survey, n = 95 survivors (median 11 years)
• 68% reported CAM use
  - Chiropractic 39%
  - Dietary supplement 38%
  - Massage 21%
  - Meditation 5%
CAM and Cancer

- Expectations
  - Improve QOL 77%
  - Boost immune system 71%
  - Prolong life 63%
  - Relieve symptoms 44%
  - Cure disease 38%

Richardson, J Clin Onc, 2000

Can CAM cure cancer?

- Ginseng
  - Leaf extract incr. apoptosis in THP-1 leukemia cells
- Ganoderma lucidum (Reishi)
  - Extract w/ anti-tumor effects in THP-1 leukemia cells
- Curcumin
  - Induces topo-DNA complexes, cell death in K562 leukemia cells
  - Apoptosis in promyelocytic leukemia HL-60 cells


Can CAM cure cancer?

- Leukemic cells (53 children w/ leukemias, 4 cell lines)
  - Viscum album (Mistletoe)
  - Uncaria tomentosa (Cat’s claw)
  - Croton lechleri (“Sangre de drago”)
- Cytotoxicity and apoptotic assays, cell-cycle analysis
  - No cytotoxic activity
  - Increased cell proliferation in 19%, 32% and 32%

Conclusion
  “...some alternative medicine remedies might stimulate the viability of childhood leukemic cells”

Styczynski 2006
CAM and Cancer
“Complementary Approaches That May Be Used with Cancer Treatment”
- Aromatherapy
- Art therapy
- Biofeedback
- Massage therapy
- Meditation
- Music therapy
- Prayer, spiritual practices
- T’ai chi
- Yoga

Stress Effects on Health
- Decreased wound healing
- Decreased immune function
- Decreased testosterone
- Increased insulin
- Worsened px after MI
- Increased risk sudden death
- Genomic changes
  - Increased inflammation
- Incr. infection, colds
- Increased HIV progression
- Increased inflammation
- Decreased vaccine response
- Increased liver disease
- Decreased health QOL
- Increased asthma flares
- Increased illness in children
- Increased LV dysfunction
- Increased cardiac arrhythmias
- Increased cardiac ischemia
- Increased RR
- Increased BP
- Increased clotting
- Decreased insulin sensitivity

Yoga and Stress Management
- Clinical Trial
  - N = 39 pts. w/ lymphoma
    - Tibetan yoga (TY) (7 wkly sessions)
    - Wait list control
  - Patients in TY group
    - Better subjective sleep quality (P < 0.02)
    - Faster sleep latency (P < 0.01)
    - Longer sleep duration (P < 0.03)
    - Less use of sleep medications (P < 0.02)


Cohen 2004
Yoga and Stress Management

- **Clinical Trial**
  - N = 50 Mayo Clinic employees
  - 6 days/wk at 5:10 AM x 6 wks
  - Power yoga, instruction.
  - Improved
    - Weight, blood pressure, flexibility, body fat
    - Overall quality of life.

Bauer, 2010

Acupuncture and Stress Management

- **Clinical Trial**
  - Pts. with fibromyalgia, N = 50
  - Acupuncture vs. sham acupuncture
  - 6 sessions
  - Metrics at 1 month 7 months
    - FIQ P<0.01 P<0.02
    - Fatigue P<0.007 P<0.02
    - Anxiety P<0.02 P<0.02

Martin 2006

Acupuncture and Stress Management

- “Is there a role for complementary therapy in the management of leukemia?”
  - Memorial Sloan-Kettering Cancer Center
  - Recommend:
    - Mind-body interventions
      - Self-hypnosis, meditation, guided imagery
    - Massage and reflexology
    - “Acupuncture is very beneficial for symptom management without adverse consequences”.

Wesa, 2009
Meditation and Stress Management

- Systematic Review – Meditation & Cancer Pts
  - 3 RC trials, 7 uncontrolled trials
  - Positive results
    - Mood, sleep quality, reductions in stress
  - Dose-response effect observed
  - Freq. methodological limitations identified

Smith, 2005

Massage Therapy and Stress Management

- Memorial Sloan-Kettering Cancer Center
  - 1,290 patients treated over 3 yr period
  - Pre- and Post-therapy sx recorded
    - Pain
    - Fatigue
    - Stress/Anxiety
    - Depression
    - Nausea

Cassileth, 2004

Massage Therapy and Stress Management

- Results:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>40%</td>
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<tr>
<td>Fatigue</td>
<td>41%</td>
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<tr>
<td>Anxiety</td>
<td>52%</td>
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<tr>
<td>Nausea</td>
<td>21%</td>
</tr>
<tr>
<td>Depression</td>
<td>31%</td>
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</tbody>
</table>

Cassileth, 2004
Massage Therapy and Stress Management

- Measuring the Effect of Massage Therapy on Pain, Anxiety and Tension in Cardiac Surgical Patients
  - Investigators: Dr. B. A. Bauer, Sue Cutshall RN, Laura Wentworth RN, Penny Kalpin RN, Thoralf Sundt MD
  - Funding: Mayo Clinic CR20 Award

Music and Stress Management

- Metanalysis; music for endoscopy
  - Decr. anxiety, pain, sedation requirements (Rudin, 2007)
- N = 207 surgical pts, music vs diazepam pre-op
  - Equal efficacy for anxiety, cortisol, HR, BP (Berbel, 2007)
- N = 50 pts, live guitar/singing during chemotx
  - Decr. anxiety, fear, fatigue, BP; Incr relaxation (Ferrer, 2007)
- N = 100 pts, nature sounds/music post-op
  - Decr. pain, anxiety, Incr. relaxation (Bauer, 2010)

CAM and Stress Management

- Conclusions:
  - Herbs/DS need careful scrutiny
  - Stress is common w/ chronic illness
  - Stress can be a major risk factor
  - CAM modalities may be:
    - cost-effective
    - collaborative
    - used to encourage self care
CAM for Stress Management

- Therapies with good efficacy/low risk
  - Massage
  - Acupuncture
  - Yoga
  - Spirituality
  - Guided imagery
  - Meditation
  - Music Therapy
  - Hypnosis
  - Tai chi
  - etc.

Integrative Medicine

“The practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.”

Questions???

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