Role of Acupuncture in Cancer Survivorship

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10.14.17
What is Acupuncture?

• National Institutes of Health Consensus Development Conference Statement, 1997:
  • “Acupuncture describes a family of procedures involving stimulation of anatomical locations on the skin by a variety of techniques.”
  • “The most studied mechanism of stimulation of acupuncture points employs penetration of the skin by thin, solid, metallic needles, which are manipulated manually or by electrical stimulation.”
ACUPUNCTURE PROCEDURE

- Hair thin needles
- Specific points
- Hand/electrical stimulation
- 45-60 min.
BRAIN

THE DESTINATION OF ACUPUNCTURE STIMULATION
BRAIN CHEMICLAS

- Endorphins
- Dopamine
- Seratonin
Western Medicine

CAM

Integrative Medicine
Integrative Oncology

Oncology Acupuncture

Oncology Acupuncturist
Top 10 Clinical Conditions being Studied in Oncology Acupuncture Trials

- Pain
- Quality of Life
- Fatigue
- Nausea
- Vomiting
- Hot Flashes
- Xerostomia
- Joint Diseases
- Arthralgia
- Anxiety Disorders

Clinicaltrial.gov; Oct. 19, 2012
NCCN Clinical Practice Guidelines in Oncology
"Acupuncture"
Why Use Acupuncture in Cancer Survivorship?

• A high safety profile
• A non-pharmaceutical intervention
• Alleviates a wide variety of symptoms simultaneously
• Supported by increasing scientific evidence
Acupuncture Benefits for Cancer Survivors

- Reduce cancer pain (more in chronic pain)
- Reduce nausea/vomiting
- Improve sleep quality
- Reduce hot flashes
- Reduce fatigue
SOOTHING

ACUPUNCTURE REDUCES CANCER PAIN
Acupuncture for Joint Pain in Breast Cancer

- Randomized, Blinded, Sham-Controlled Trial of Acupuncture for the Management of Aromatase Inhibitor–Associated Joint Symptoms in Women With Early-Stage Breast Cancer

Acupuncture for the treatment of phantom limb syndrome in lower limb amputees: a randomised controlled feasibility study

Esmé G. Trevelyan*, Warren A. Turner, Lynn Summerfield-Mann and Nicola Robinson
Fig. 2 Box plot of 'average pain' intensity at baseline and day 28.
Use of NADA ear acupuncture in an adolescent patient with phantom limb pain after surgery for osteosarcoma

From 6/6

1-2/6
On MYCaW

Figure 1 Needles in place at Shenmen (point 55), Liver (point 97), Kidney (point 95), Lung (point 101) and Sympathetic point (point 51) on the right ear.
The effect of acupuncture on chemotherapy-associated gastrointestinal symptoms in gastric cancer

J. Zhou MD,*a L. Fang MD,†a W.Y. Wu MS,‡ F. He MS,‡ X.L. Zhang MS,‡ X. Zhou MD,* and Z.J. Xiong MD*
The effect of acupuncture on chemotherapy-associated gastrointestinal symptoms in gastric cancer

- N=56 patients, a RCT
- Chemotherapy with oxaliplatin–paclitaxel.
- 30 minutes of acupuncture therapy daily for 2 weeks.

### TABLE II  Hospitalization and gastrointestinal symptoms in the control and intervention groups

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Patient group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
</tr>
<tr>
<td>Hospitalization</td>
<td></td>
</tr>
<tr>
<td>Average duration (days)</td>
<td>20±2</td>
</tr>
<tr>
<td>Average cost (yuan)</td>
<td>20,114±473</td>
</tr>
<tr>
<td>Duration of nausea (minutes/day)</td>
<td></td>
</tr>
<tr>
<td>Day 0</td>
<td>2±1</td>
</tr>
<tr>
<td>Day 14</td>
<td>41±6</td>
</tr>
<tr>
<td>Average</td>
<td>32±5</td>
</tr>
<tr>
<td>Frequency of vomiting (times/day)</td>
<td></td>
</tr>
<tr>
<td>Day 0</td>
<td>1±1</td>
</tr>
<tr>
<td>Day 14</td>
<td>7±2</td>
</tr>
<tr>
<td>Average</td>
<td>4±1</td>
</tr>
<tr>
<td>Duration of abdominal pain (minutes/day)</td>
<td></td>
</tr>
<tr>
<td>Day 0</td>
<td>3±1</td>
</tr>
<tr>
<td>Day 14</td>
<td>21±4</td>
</tr>
<tr>
<td>Average</td>
<td>16±3</td>
</tr>
<tr>
<td>Frequency of diarrhea (times/day)</td>
<td></td>
</tr>
<tr>
<td>Day 0</td>
<td>1±1</td>
</tr>
<tr>
<td>Day 14</td>
<td>5±2</td>
</tr>
<tr>
<td>Average</td>
<td>3±1</td>
</tr>
<tr>
<td>Quality of life score</td>
<td></td>
</tr>
<tr>
<td>Day 0</td>
<td>4±1</td>
</tr>
<tr>
<td>Day 14</td>
<td>2±1</td>
</tr>
</tbody>
</table>

*Boldface type indicates $p < 0.05$ for the comparison of that value with the value for the control group. Day 0 = the day before study; day 14 = the last day of the study; average = average of all measurements.
ACUPUNCTURE REDUCES NEUROPATHY
ENERGY

ACUPUNCTURE REDUCES CANCER RELATED FATIGUE
Acupuncture for Cancer-Related Fatigue in Patients With Breast Cancer: A Pragmatic Randomized Controlled Trial

Alexander Molassiotis, Joy Bardy, Jennifer Finnegan-John, Peter Mackereth, David W. Ryder, Jacqueline Filshie, Emma Ream and Alison Richardson
Acupuncture for Chemotherapy Induced Nausea and Vomiting

• Electroacupuncture for Control of Myeloablative Chemotherapy–Induced Emesis A Randomized Controlled Trial

• To compare the effectiveness of electroacupuncture vs minimal needling and mock electrical stimulation or antiemetic medications alone in controlling emesis among patients undergoing a highly emetogenic chemotherapy regimen

• N=104, women with high-risk breast cancer

COOLING
ACUPUNCTURE REDUCES HOT FLASHES
Acupuncture versus venlafaxine for the management of vasomotor symptoms in patients with hormone receptor-positive breast cancer: a randomized controlled trial.

REST

ACUPUNCTURE IMPROVES SLEEP IN CANCER PATIENTS

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Original article

Acupuncture relieves menopausal discomfort in breast cancer patients: A prospective, double blinded, randomized study

Susanne Bokmand\textsuperscript{a,b,*} , Henrik Flyger\textsuperscript{b}

\textsuperscript{a}Department of Breast Surgery, Vejle Hospital, Denmark
\textsuperscript{b}Department of Breast Surgery, Herlev Hospital, Copenhagen University Hospital, Denmark
The number of patients with sleep disturbance

- **Acupuncture**
  - Before Tx: [Value]
  - After 4 Tx: [Value]
  - 12 wk post Tx: [Value]

- **Sham**
  - Before Tx: [Value]
  - After 4 Tx: [Value]
  - 12 wk post Tx: [Value]

- **No Tx**
  - Before Tx: [Value]
  - After 4 Tx: [Value]
  - 12 wk post Tx: [Value]
Patient-Reported Symptom Changes After Starting Acupuncture in a 56-year-old Female with Triple Negative, Metastatic Breast Cancer into Spine Undergoing Immunotherapy (9/2016-1/2017, 12 visits)

Percentage Changes from Baseline on Total Symptom Scores
Research Article

The Effect of Electroacupuncture on Osteosarcoma Tumor Growth and Metastasis: Analysis of Different Treatment Regimens

Branden A. Smeester,1 Mona Al-Gizawy,2 Elaine E. O’Brien,3 Marna E. Ericson,4 Jennifer L. Triemstra,3 and Alvin J. Beitz5
EA at ST-36 twice weekly (EA-2X/3) beginning at postimplantation day 3 (PID 3) in mice (n=21): reduce both bone tumor growth and lung metastasis
MEDITATION
TAI CHI
The Leonard P. Zakim Center for Integrative Therapies, Dana-Farber Cancer Institute
Conclusions

• Oncology acupuncture is an emerging subspecialty in cancer care
• Oncology acupuncture distinctively differs from traditional acupuncture
• Increasing evidence from clinical trials supporting the use of acupuncture in cancer care, especially in cancer survivorship
• More research is needed