ACUPUNCTURE IN PALLIATIVE CARE

EVIDENCE BASED MEDICINE

Sara Bowling, MD
Family Medicine and Medical Acupuncture
Family Care Network
INTEGRATIVE MEDICINE
CONVENTIONAL CARE
THE PILL BURDEN

Average elderly patient is on 8-13 medications
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Symptom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anorexia</td>
<td>Dyspnea</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Fatigue</td>
</tr>
<tr>
<td>Constipation</td>
<td>Nausea and Vomiting</td>
</tr>
<tr>
<td>Delirium</td>
<td>Pain</td>
</tr>
<tr>
<td>Depression</td>
<td>Respiratory tract secretions</td>
</tr>
<tr>
<td>Diarrhea</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>Medicine</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Dexamethasone</td>
<td>Loperamide</td>
</tr>
<tr>
<td>Diazepam and Lorazepam</td>
<td>Morphine</td>
</tr>
<tr>
<td>Docusate and Senna</td>
<td>Metoclopramide</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>Ibuprofen</td>
</tr>
<tr>
<td>Amitriptyline and Fluoxetine</td>
<td>Hyoscine butyl-bromide</td>
</tr>
</tbody>
</table>
### EVIDENCE BEHIND MEDICATIONS

<table>
<thead>
<tr>
<th>Drug Combination</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dexamethasone</td>
<td>A</td>
</tr>
<tr>
<td>Diazepam/ Lorazepam</td>
<td>D</td>
</tr>
<tr>
<td>Docusate and Senna</td>
<td>D</td>
</tr>
<tr>
<td>Haloperidol</td>
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<td>Hyoscine butyl-bromide</td>
<td></td>
</tr>
</tbody>
</table>
## SIDE EFFECTS

<table>
<thead>
<tr>
<th>Drug</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dexamethasone</td>
<td>Anaphylactic reactions, acute myopathy, perineal irritation, psychiatric disturbances</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>QT prolongation, anticholinergic effects, leukopenia, CNS depression, extrapyramidal symptoms, esophageal dysmotility, orthostatic hypotension</td>
</tr>
<tr>
<td>Morphine</td>
<td>Constipation, CNS depression, hypotension, hypersensitivity reaction, respiratory depression</td>
</tr>
</tbody>
</table>
ACUPUNCTURE
SAFE & EFFECTIVE
ACUPUNCTURE IS SAFE

Rare Adverse Events

Dizziness

Subcutaneous bleeding

Mild burn
ACUPUNCTURE IS SAFE

Special Considerations

Never placed in tumor or ulcerated area

Never placed in limbs prone to lymphedema

Care when treating over chest wall in cachectic patients

No electroacupuncture if pacemaker
IS ACUPUNCTURE PAINFUL?

Acupuncture Needle: 0.25 mm
Sewing Needle: 1.02 mm
Medical Syringe: 28.5 mm
Match Stick: 42 mm
WHAT IS ACUPUNCTURE?

Originated 2000 years ago

North America in the 1970s as useful for anesthesia

A series of meridians through which energy flows
THE SCIENCE OF ACUPUNCTURE?
PAIN MODULATION
ENDOGENOUS OPIOIDS

Stimulates release of dynorphin, enkephalin, beta-endorphin.

Increases endogenous cannabinoid receptors

Up-regulates opioids in inflamed tissues
ENDOGENOUS OPIOIDS

Opioid antagonists such as naloxone, can reverse the analgesic effects of acupuncture.
“Acupuncture is an effective treatment modality for adult postoperative and chemotherapy nausea and vomiting.”

“There is sufficient evidence of acupuncture’s value to expand its use into conventional medicine and encourage further studies of its physiology and clinical value”
ACUPUNCTURE IS EVIDENCE BASED MEDICINE

Clinical Expertise

Research / Data

Patient Values & Expectations
The challenges of the acupuncture control:
SHAM acupuncture
<table>
<thead>
<tr>
<th>Symptom</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Fatigue*</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Nausea-Vomiting**</td>
<td>Anorexia</td>
</tr>
<tr>
<td>Pain*</td>
<td>Constipation</td>
</tr>
<tr>
<td>Hot flashes*</td>
<td>Paresthesia</td>
</tr>
<tr>
<td>Xerostomia</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>Limb edema</td>
</tr>
</tbody>
</table>
WHO’S 3-STEP LADDER FOR CANCER PAIN RELIEF

Severe pain
Strong opioid ± nonopioid ± Adjuvant

Moderate to severe pain
Weak opioid and/or nonopioid analgesia ± Adjuvant
• Codeine • Tramadol

Mild to moderate pain
Nonopioid analgesia ± Adjuvant
• Codeine • Tramadol • NSAID
Analgesic Effect of Auricular Acupuncture for Cancer Pain: A Randomized, Blinded, Controlled Trial

By David Alimi, Carole Rubino, Evelyne Pichard-Léandri, Sabine Fermand-Brulé, Marie-Laure Dubreuil-Lemaire, and Catherine Hill

Symptom Management with Massage and Acupuncture in Postoperative Cancer Patients: A Randomized Controlled Trial

Wolf E. Mehling, MD, Bradly Jacobs, MD, MPH, Michael Acree, PhD, Leslie Wilson, PhD, Alan Bostrom, PhD, Jeremy West, BA, Joseph Acquah, OMD, Beverly Burns, OMD, Jnani Chapman, RN, CMP, and Frederick M. Hecht, MD
A Randomized Trial of Electro-acupuncture for Arthralgia related to Aromatase Inhibitor Use

Jun J. Mao, M.D.¹ ² ³, Sharon X. Xie, Ph.D.², John T. Farrar, M.D.² ³, Carrie T. Stricker, Ph.D.³, Marjorie A. Bowman, M.D.⁴, Deborah Bruner, Ph.D.⁵, and Angela DeMichele, M.D.² ³

Chemotherapy-Induced Peripheral Neuropathy in Cancer Patients: A Four-Arm Randomized Trial on the Effectiveness of Electroacupuncture

M. Rostock,¹ ² ³ K. Jaroslawski,¹ ⁴ C. Guethlin,⁴ ⁵ R. Ludtke,⁶ S. Schröder,⁷ and H. H. Bartsch¹
Electroacupuncture for Control of Myeloablative Chemotherapy–Induced Emesis
A Randomized Controlled Trial

Joannie Shen, MD, MPH
Neil Wenger, MD, MPH
John Glaspy, MD, MPH
Ron D. Hays, PhD
Paul S. Albert, PhD
Christina Choi, OMD
Paul G. Shekelle, MD, PhD

Context High-dose chemotherapy poses considerable challenges to emesis management. Although prior studies suggest that acupuncture may reduce nausea and emesis, it is unclear whether such benefit comes from the nonspecific effects of attention and clinician-patient interaction.

Objective 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.

Design Three-arm, parallel-group, randomized controlled trial conducted from March 1996 to December 1997, with a 5-day study period and a 9-day follow-up.
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

The management of cancer-related fatigue after chemotherapy with acupuncture and acupressure: A randomised controlled trial

Alexander Molassiotis, Paola Sylt, Helen Diggins

The effect of acupuncture on post-cancer fatigue and well-being for women recovering from breast cancer: a pilot randomised controlled trial

Caroline Smith, Bridget Carmady, Charlene Thornton, Janette Perz, Jane M Ussher
Acupuncture As an Integrative Approach for the Treatment of Hot Flashes in Women With Breast Cancer: A Prospective Multicenter Randomized Controlled Trial (AcCliMaT)

Grazia Lesi, Giorgia Razzini, Muriel Assunta Musti, Elisa Stivanello, Chiara Petrucci, Benedetta Benedetti, Ermanno Rondini, Maria Bernadette Ligabue, Laura Scaltriti, Alberto Botti, Fabrizio Artioli, Pamela Mancuso, Francesco Cardini, and Paolo Pandolfi
INTEGRATIVE EVIDENCE BASED MEDICINE

Clinical Expertise

Research / Data

Patient Values & Expectations
Acupuncture is effective for
- Pain control
- Nausea and vomiting
- Fatigue
- Hot flashes

It is best used alongside conventional medicine early on in treatment, rather than as last resort.


Towler P, Molassiotis A, Brearley SG. What is the evidence for use of acupuncture as an intervention for symptom management in cancer supportive and palliative care: an integrative overview of reviews. Support Care Cancer 2013: 21:2913-2923