

**Acupuncture in
Cancer Care –
Symptom
Management**

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Learning Objectives

By the end of the talk, attendees are able to

- Describe the central concept of Traditional Chinese Medicine
- Describe the general process of an acupuncture visit
- List the areas that acupuncture can be beneficial for oncology patients

Use of Acupuncture

- Used in 103 countries (WHO, 2014)
 - 29 countries have regulations for providers
 - 18 countries has acupuncture covered by health insurance
- More than 3.4 millions adults used acupuncture in 2012 which was increased from 2002. (NIH, 2015)

Use of complementary medicine & acupuncture for cancer

- 34 – 91% complementary and alternative medicine use for cancer (Dean-Clower et al., 2010)
- CAM use is higher in
 - Patients with more advanced cancer
 - Patients with significant treatment-related symptoms (Bardia et al. 07)
- 10.2% of the cancer survivors utilized acupuncture. (Jun et al., 2011)

What is Traditional Chinese Medicine?

- Traditional Chinese Medicine (TCM), a medical system which originated in China thousands of years ago.
- Modalities in TCM
 - Chinese herbal medicine
 - Acupuncture
 - Nutrition Therapy
 - Exercise

Central Concept of TCM

- Health: a state of dynamic balance within an individual and within the natural ecosystem.
 - Life events
 - Seasonal changes
 - Climates
- Disease: disharmony of the internal functions in an individual or between the individual and the environment.

Philosophical perspectives of TCM

- Yin Yang
- Five Elements
- Qi, Blood, Body fluids
- Organs
- Channels and meridians

What is acupuncture?

- Gentle insertion and manipulation of the needles on the body to "regulate Qi flow".
- Lead to variety of physiological changes:
 - Stimulate and release natural neurochemicals in the body, eg. Endorphins and enkephalins.
 - Modulate sympathetic and parasympathetic nervous system
 - Change opioid binding potential in brain

In an acupuncture visit

- Information gathering: history, symptoms and signs
 - Inquiry, observation, olfaction, palpation
- Diagnosis: Pattern identification utilizing TCM theories
- Treatment: acupuncture and or other therapies
 - Cupping, moxibustion, electro-acupuncture, Tui Na (massage)
 - Diet therapy, Qigong (exercise)
 - Chinese Herbal Medicine
- Visit length: 45-90 mins
- Frequency: 1-2x/week

Role of Acupuncture and TCM in Cancer Care

- Integrate treatment with standard treatments
- Treat acute or long term side-effects from conventional treatment
- Boost cell counts
- Improve quality of life
- Provide monitoring post standard treatments

Clinical Indications

- Pain: musculoskeletal, internal, emotional, post-surgical
- Nausea & Vomiting
- Fatigue
- Peripheral neuropathy
- Constipation or diarrhea
- Anxiety, depression
- Hot Flashes
- Insomnia
- xerostomia

Cancer Pain

- Acupuncture for Pain Management in Cancer: A Systematic review and meta-analysis (Hu, Zhang, Wu et al., 2016)
- 1639 participants in 20 RCTs
- Acupuncture plus drug therapy provides better pain relief than drug therapy alone.

Cancer Pain

- Systematic Review and meta-analysis of acupuncture to reduced cancer-related pain. (Chiu, Hsieh & Tsai, 2017)
- 29 RCTs
- Acupuncture is effective in relieving cancer-related pain:
 - Tumor-related
 - Surgery-induced
- Ineffective to pain related to chemotherapy, radiation therapy and hormonal therapy

Aromatase inhibitor-induced arthralgia

- Effect of acupuncture on aromatase inhibitor-induced arthralgia in patients with breast cancer: A meta-analysis of randomized controlled trials (Chen, Lin, Huang, et al., 2017)
- 5 trials; n=181
- Significant pain reduction after 6-8 weeks of acupuncture treatments.

Case

- 66 yo female with anal cancer stage II, recurrent squamous cell carcinoma found in abdominal lymph nodes.
- 2 abdominal surgeries. Developed pain on the right lower quadrant and right thigh.
- Pain management with 5mg Vicodin BID
- With 1 acupuncture treatment, pain is controlled with 5mg Vicodin daily.

Nausea and Vomiting

- Benefit from Acupuncture in treating post-operative nausea and vomiting (Linde, 2001)
- Not conclusive for radiation-induced nausea and vomiting (Chien 2013, Smith 2012)

CINV

- Systematic review of acupuncture for CINV includes 11 studies, n=1247
- Stimulation at acupuncture points significantly reduce incidence of acute vomiting, not severity of acute or delayed nausea
- Acupressure reduces acute nausea severity (Ezzo, Richardson, Vickers et al., 2006)
- Review of 10 controlled trial conclude that acupressure is strongly recommended for CINV (Lee, Dodd, Dibble, et al., 2008)

Cancer-related fatigue

- A review 7 RCTs, 4 showed effectiveness using acupuncture or adding acupuncture to usual care; 3 showed no difference between acupuncture and sham treatment. (Posadzki, Moon, Choi, et al., 2013)
- RCT studied the effect of acupuncture, acupressure and sham acupressure on fatigue in cancer patients. Significant difference were found in general fatigue, physical fatigue, activity and motivation. Better with acupuncture. (Molassiotis, 2007)

Cancer-related fatigue

- Randomized double blind, placebo-controlled pilot trial on CRF in lung cancer patients. (Cheng, Chen, Ning, et al., 2017)
- 28 patients
- Significant reduction in fatigue at 2 weeks compare to placebo group.
- At 6 weeks, significant reduction in fatigue and improved QOL were observed.

Case

- 73 yo male with metastatic urothelial carcinoma
- weekly carboplatin and Taxol every 3 weeks.
- Fatigue, nausea, peripheral neuropathy
- 3 acupuncture treatments at once a week, he did not take any antiemetic medication with his chemo, increased activity of the day.

Peripheral Neuropathy

- A nonrandomized controlled trial suggests that acupuncture has a positive effect on chemotherapy-induced peripheral neuropathy. (Schroeder, 2012, Donald, 2011)
- A pilot study with 27 multiple myeloma patients with Bortezomid-induced peripheral neuropathy showed decrease in pain and improvement in function at weeks 10 and 14.
- No significant change in nerve conduction between baseline and at the end. (Bao, Golubeva, Pelsler, et al., 2014)

Case

- 59yo female with stage IIIc Ovarian cancer.
- Treated with Taxol and Carboplatin with significant taxol-related neuropathy, changed to Taxotere and Carboplatin.
- Surgery and adjuvant chemotherapy
- Started acupuncture 1.5 months after the start of chemo, for 14 months.
- Gabapentin was prescribed
- Improvements with neuropathy, persistent abnormal sensation at 2nd toe.
- Improved sleep, muscle tension and stress reaction

Hot Flashes

- A randomized controlled trial on 120 breast cancer survivors with hot flashes more than twice a day concluded that electroacupuncture may be more effective than gabapentin with lesser side effects.
- Electroacupuncture group also has the best long term effect compare to sham, placebo pill and gabapentin. (Mao, Bowman, Xie, et al., 2015)

Radiation-induced Xerostomia

- Patients with chronic radiation-induced xerostomia (Simcock et al, 2013)
 - Significant relief in severity of dry mouth, sticky saliva, needing to sip to swallow food, waking up at night to drink comparing to oral care education
- Concurrent Acupuncture and radiation for nasopharyngeal cancer (Meng et al, 2012)
 - Acupuncture helped to reduce the occurrence and severity of xerostomia in comparison to sham acupuncture
- Positive effects of acupuncture are only seen when some residual salivary gland tissue remains functional. (Lovelace, 2014)

Now...

- What is the central concept of Traditional Chinese Medicine?
- What happen in an acupuncture visit?
- List three cancer or cancer treatment related complaints that can be treated with acupuncture?

QUESTIONS?

THANK YOU!
