



Acupuncture – A complementary therapy to Breast Cancer Treatment

Presented by Aina Zhang and James Wang

13/11/2008

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Presentation Outline

- ❖ **Credentials of Aina Zhang**
- ❖ **Definition and introduction of TCM**
- ❖ **Therapeutic tools of TCM (Acupuncture, meridian and acupuncture points)**

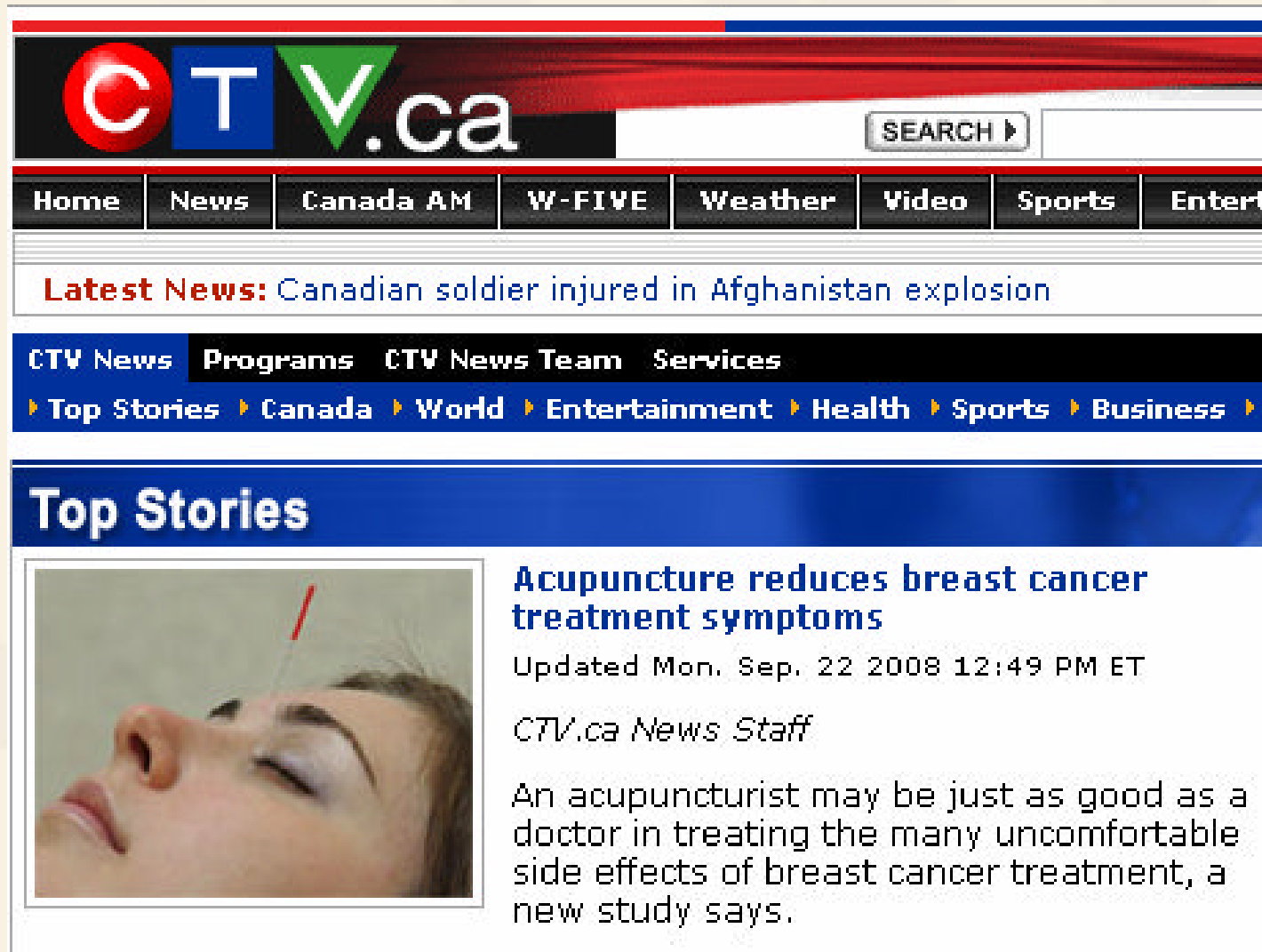
- ❖ **Integration of TCM with western medicine in the treatment of breast cancer**
- ❖ **TCM as a complementary therapy in the treatment of breast cancer:**
 - ◆ **Prevention**
 - ◆ **Surgery**
 - ◆ **Chemotherapy**
 - ◆ **Radiotherapy**
 - ◆ **Endocrine therapy**
 - ◆ **Recurrence prevention**

- ❖ **Safety concerns of acupunctures and TCM herbs**
- ❖ **Myth and controversy about acupuncture**
- ❖ **Questions & answers**

Appendix:

- ❖ **Clinical studies regarding to TCM herbs & acupuncture in breast cancer treatment**
- ❖ **History and fundamental theories of TCM**
- ❖ **Diagnostic principles and techniques of TCM**

Acupuncture and Breast Cancer in the News



The image is a screenshot of the CTV.ca website. At the top, the CTV.ca logo is displayed in red, blue, and green. To the right of the logo is a search bar with a "SEARCH" button. Below the logo is a navigation menu with links for Home, News, Canada AM, W-FIVE, Weather, Video, Sports, and Entertainment. A "Latest News" section features a headline: "Canadian soldier injured in Afghanistan explosion". Below this is another navigation menu with links for CTV News, Programs, CTV News Team, and Services. A secondary navigation menu includes links for Top Stories, Canada, World, Entertainment, Health, Sports, and Business. The main content area is titled "Top Stories" and features a news article. The article has a photograph of a woman receiving acupuncture. The headline of the article is "Acupuncture reduces breast cancer treatment symptoms". The article text states: "An acupuncturist may be just as good as a doctor in treating the many uncomfortable side effects of breast cancer treatment, a new study says."

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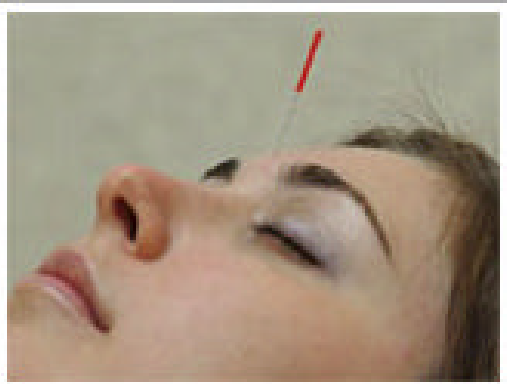
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Top Stories



Acupuncture reduces breast cancer treatment symptoms

Updated Mon, Sep. 22 2008 12:49 PM ET

CTV.ca News Staff

An acupuncturist may be just as good as a doctor in treating the many uncomfortable side effects of breast cancer treatment, a new study says.

Acupuncture and Breast Cancer in the News

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EXECUTIVE HEALTH September 22, 2008, 09:00 EST

Acupuncture Eases Breast Cancer Treatment Side Effects

Ancient therapy bested antidepressant for relieving hot flashes in study

Acupuncture and Breast Cancer in the News

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Acupuncture beats drug to treat hot flashes: study

Will Dunham, Reuters
Published: Monday, September 22, 2008

WASHINGTON (Reuters) - Acupuncture works as well as a drug commonly



Acupuncture for the Treatment of Vasomotor Symptoms in Breast Cancer Patients Receiving Hormone Suppression Treatment

E.M. Walker, None; A.I. Rodriguez, None; B. Kohn, None; J. Pegg, None; R.M. Bell, None; R.A. Levine, None.
Henry Ford Health System Department of Radiation Oncology & Complementary & Integrative Medicine Program,
Detroit, MI

Purpose/Objective(s): Vasomotor symptoms (hot flashes, etc.) are common debilitating side effects of anti-estrogen treatment in conventional breast cancer care. Hormone replacement therapy, normally used in postmenopausal women to treat these symptoms, is contraindicated in breast cancer patients. The antidepressant, venlafaxine (Effexor), a serotonin reuptake inhibitor, is currently the pharmacological therapy of choice for these hot flashes. However, many women refuse this treatment approach because of potential side effects that include sexual dysfunction and nausea, or they simply do not want to take any more medication. This randomized clinical trial (RCT) tested the hypothesis that acupuncture reduces vasomotor symptoms in breast cancer patients receiving hormonal therapy and produces fewer side effects than venlafaxine.

Materials/Methods: Patients treated for breast cancer (Stages 0-III) receiving either Tamoxifen or Arimidex and having at least 14 hot flashes per week were randomized to receive a 12 week course of acupuncture or venlafaxine. 47 total patients completed the study (24 acupuncture, 23 venlafaxine). Patients logged daily the number and severity of hot flashes for one-week prior to treatment (baseline), during the course of treatment, and at regular intervals throughout 1 year following treatment. Other outcome measures assessed before, during, and after treatment included menopause-specific quality of life, general health status (SF-12), Beck Depression Inventory, and side effects.

Results: Both acupuncture and venlafaxine groups exhibited significant decreases in hot flashes and other menopausal, quality of life symptoms, as well as decreases in depressive symptoms. These changes were similar in the 2 groups, indicating that acupuncture is at least as effective as venlafaxine in reducing vasomotor and other symptoms associated with anti-estrogen hormonal treatment of breast cancer. Additionally, numerous patients treated with venlafaxine reported negative side effects including nausea, dry mouth, headache, difficulty sleeping, dizziness, double vision, increased blood pressure, constipation, fatigue, anxiety, feeling “spaced out,” and body jerking during the night. Patients treated with acupuncture experienced no negative side effects. They reported increased energy, clarity of thought, sexual desire, and overall sense of well-being (compared to pretreatment).

Conclusions: The results of this study suggest that adding acupuncture to breast cancer treatment regimens may establish an integrative approach that is more effective in managing symptoms due to treatment with fewer side effects than conventional pharmacotherapy treatment.



Credentials of Aina Zhang

- ❖ **Master's degree in Gynecology**
(1989, Guangzhou University of Traditional Chinese Medicine, China)
- ❖ **M.D. degree in combined Chinese & Western Medicine**
(1982, Guangzhou University of Traditional Chinese Medicine, China)
- ❖ **25 years of clinical experience in TCM and Western Medicine**
(1st affiliated hospital of Guangzhou University of TCM, China & SinoCare)
- ❖ **Licensed acupuncturist since 1995** (Quebec)
- ❖ **Founder of the first TCM gynecology clinic in Quebec**

Guangzhou University of TCM



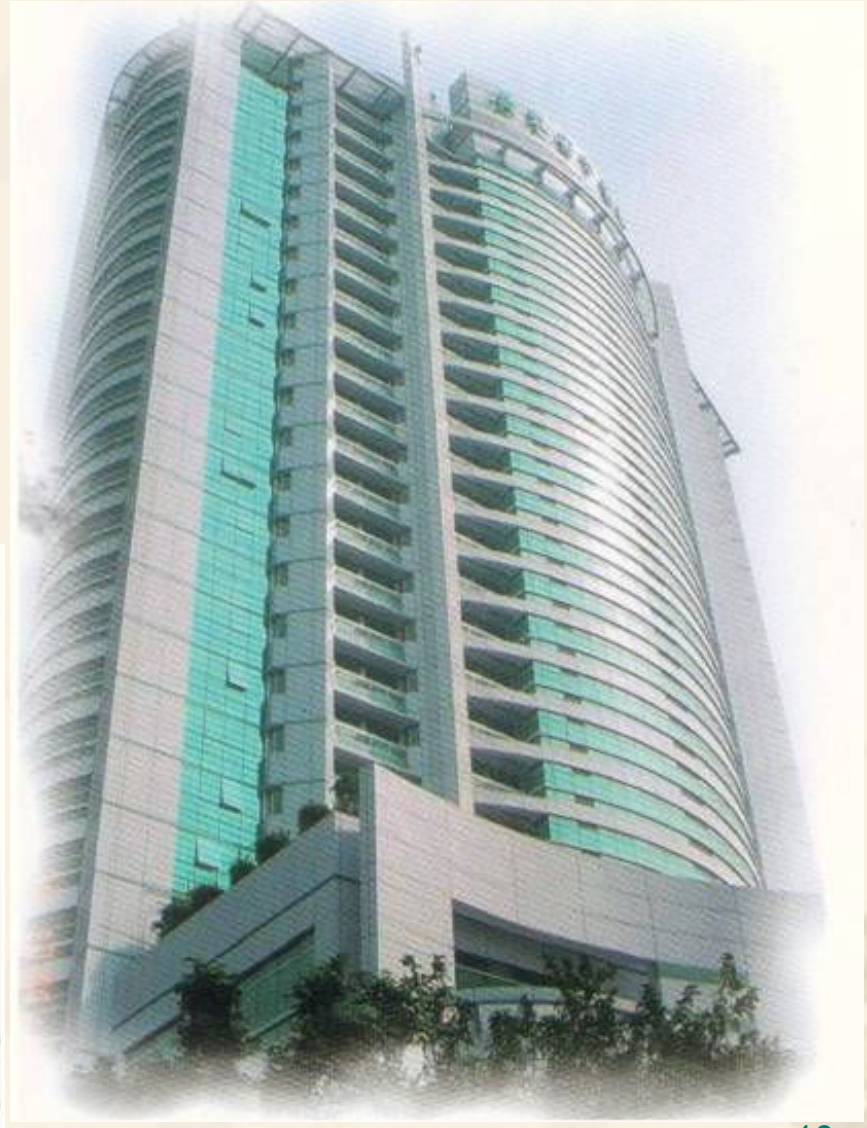
- ❖ Established in 1956, as one of the first four TCM national institutions
- ❖ One of the best & largest in China
- ❖ 500,000 M² of teaching facility
- ❖ Over 10, 000 of students



Guangzhou University of TCM Affiliated Hospitals



- ❖ 11 affiliated hospitals,
- ❖ 5000 hospital beds,
- ❖ 6 national, 8 provincial centers of research.



Definition and Introduction of TCM (Traditional Chinese Medicine)



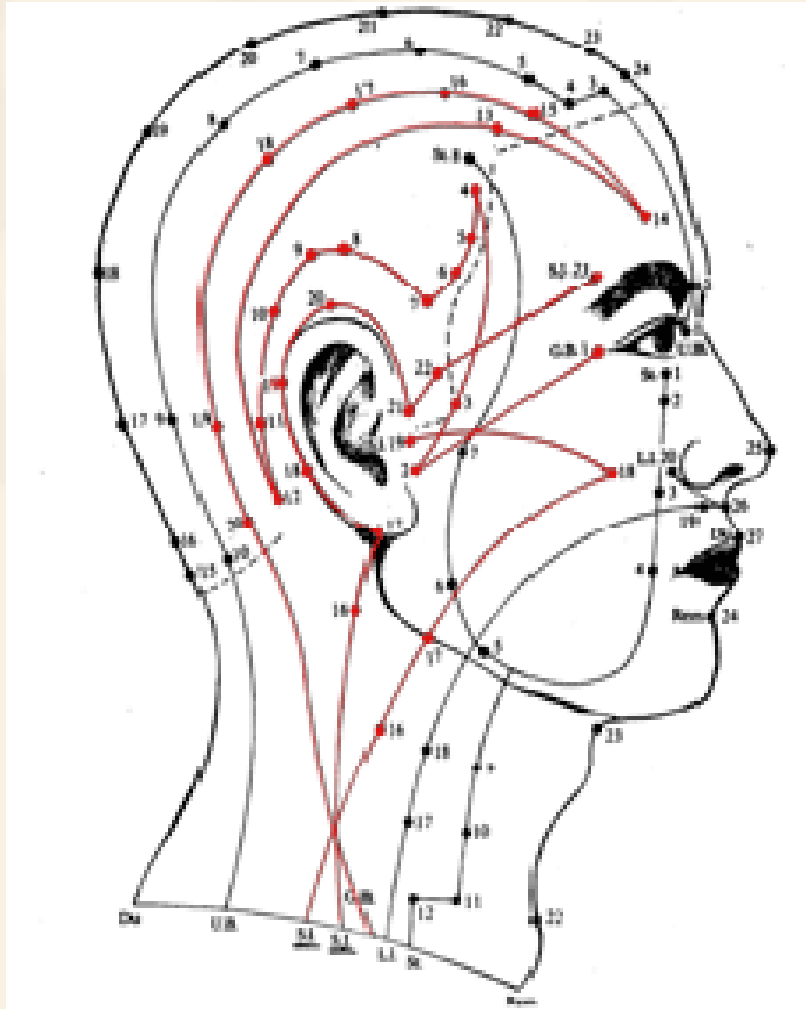
- ❖ An independent and comprehensive medicinal system, enriched by thousands of years of clinical observations, practice and documentation.
- ❖ The concept of unity within the human body and unity between the human body and nature.
- ❖ Diagnosis & treatment based on a comprehensive analysis of signs & symptoms (Bian Zheng Shi Zhi).
- ❖ Five fundamental theories and eight diagnostic principles
- ❖ Its therapeutic tools include
 - ◆ acupuncture,
 - ◆ Chinese herbal medicine,
 - ◆ massotherapy (Tuina),
 - ◆ therapeutic exercise, such as Taiji and QiGong (Meditation)
 - ◆ and dietary regulation.



Meridians, Acupuncture and Acupoints

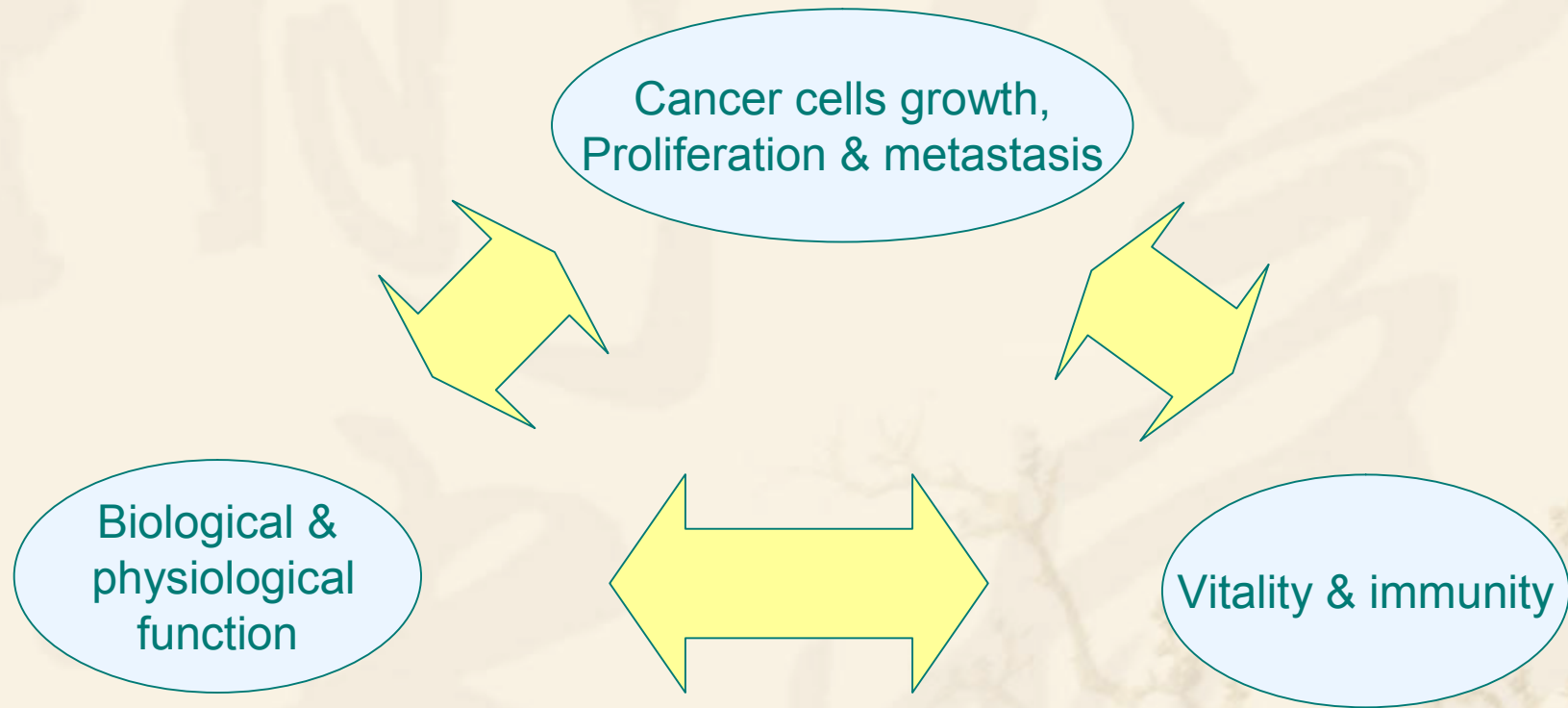
- ❖ Acupuncture: manipulation of thin needles inserted into acupoints on the meridian system to affect the flow of Qi, to influence the human's physiological functions
- ❖ The meridian system consists of 20 channels & over 15 collaterals
- ❖ Most acupoints (over 400) are located on the meridians
- ❖ The meridians make the human body an organic whole. They:
 - ▲ are linked to each other
 - ▲ connect the superficial to the interior, the upper to the lower body, the viscera to the bowels, and the four limbs to all bones
 - ▲ transport Qi & Blood to nourish the body
 - ▲ conduct stimulation, transmit feedback and regulate physiological functions
 - ▲ are invisible to modern technology

Meridians

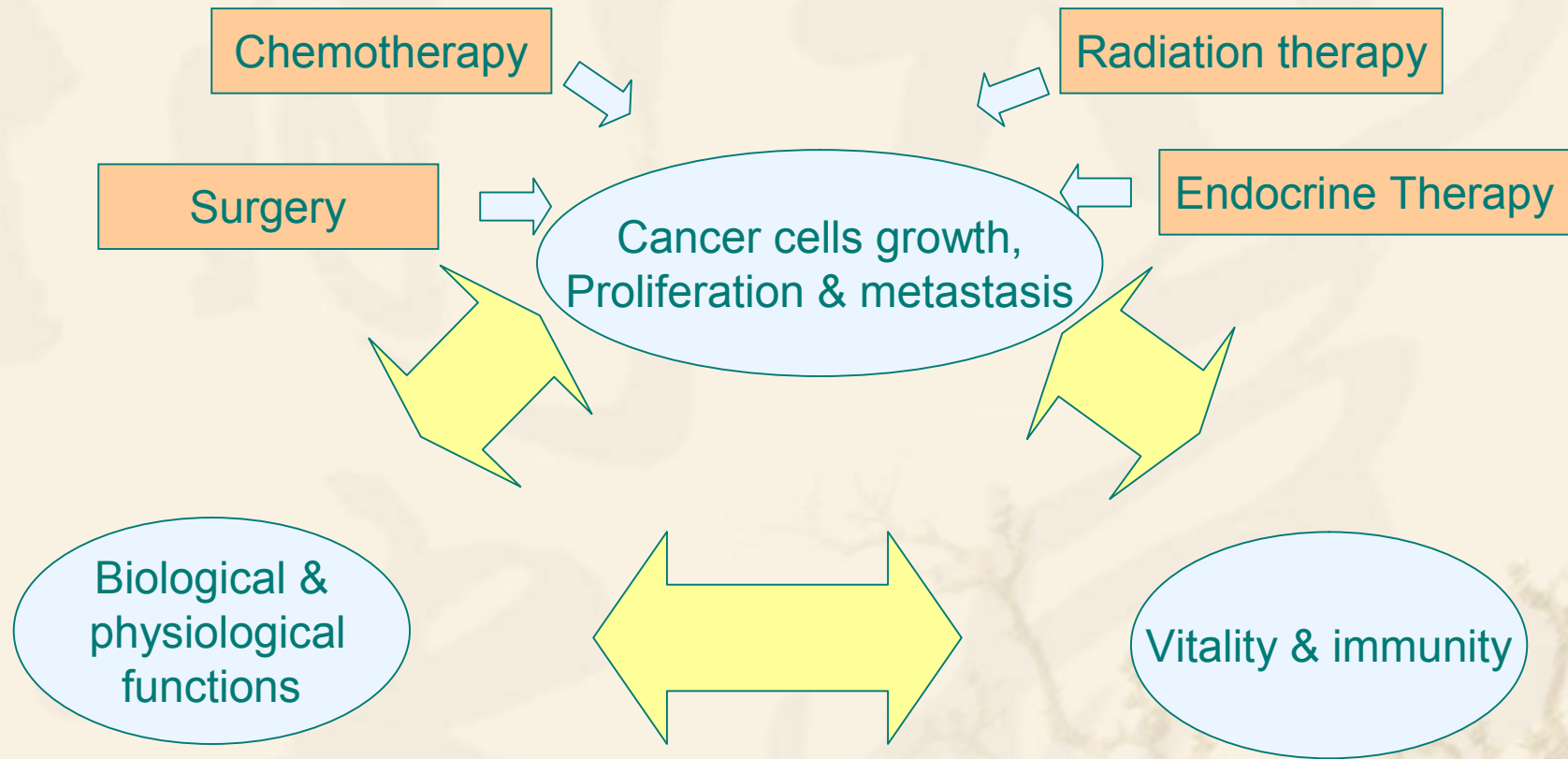


❖ Meridians - 20 Channels & many collaterals

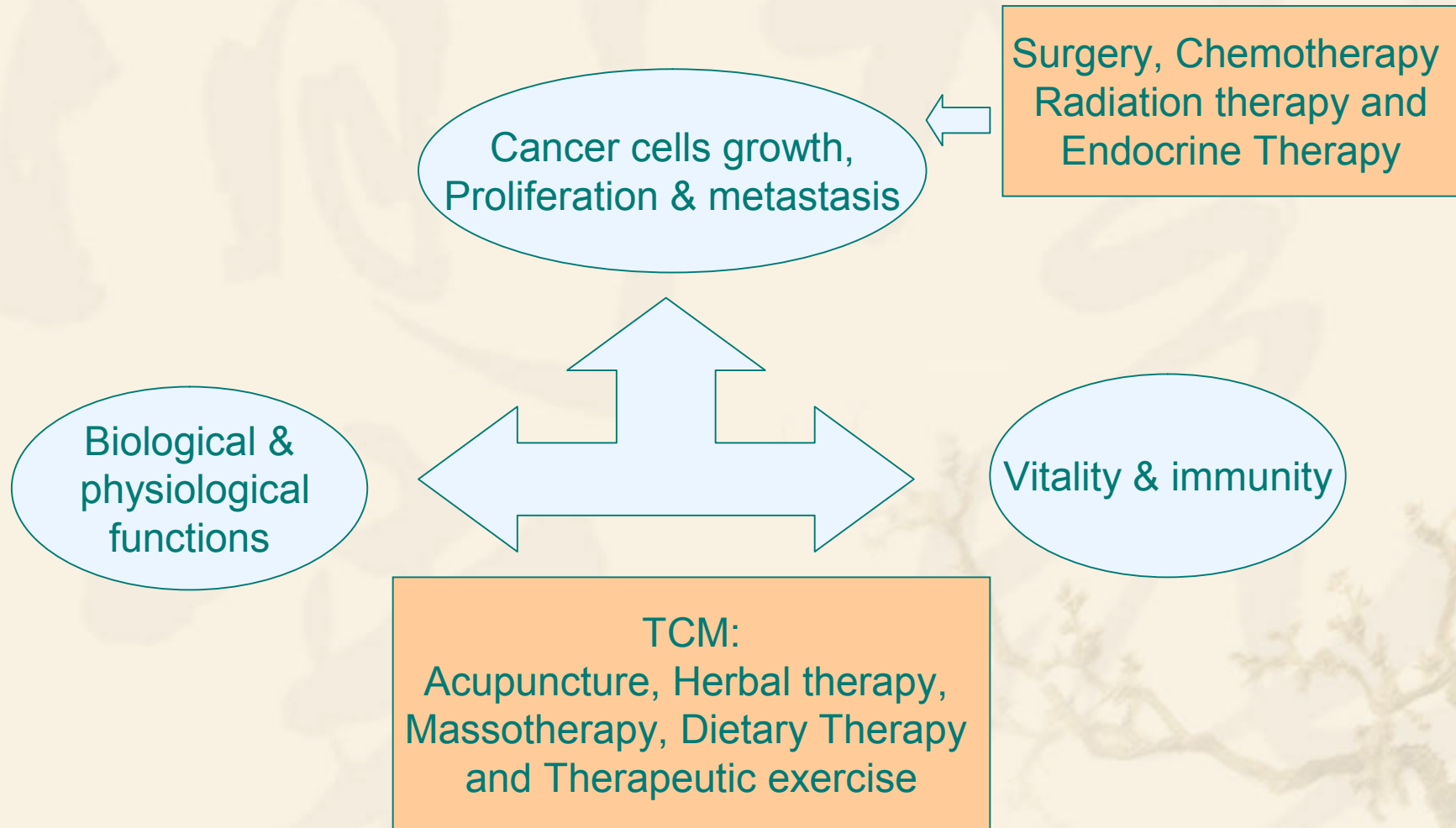
Cancer and Human Body



Western Medicine Breast Cancer Treatment



TCM Strategy in Breast Cancer Treatment



Recent Clinical Studies & Resources

- ❖ Acupuncture clinical Studies conducted by Memorial Sloan-Kettering Cancer center in New York:
 - ◆ Dyspnea in advanced cancer (2005)
 - ◆ Pain following lung cancer surgery (2006)
 - ◆ Hot flashes in breast cancer (2007)
 - ◆ Pain, dysfunction & exrostomia after surgery for head & neck cancer (2008)
- ❖ US National Cancer Institute (www.cancer.org/cam)
- ❖ Society for Integrated Oncology (www.intergrativeonc.org)
- ❖ Drug and Herbs interact database (www.mskcc.org/aboutherbs)
- ❖ Anderson Cancer Center in Houston, TX
- ❖ Jewish General Segal Cancer centre in Montreal



Conference Information

Time : April 25-26, 2008.Address: Shanghai Worldfield Convention Hotel,2106 Hongqiao Road, Changning District, Shanghai, PRCPhone : (8621) 62703388Theme: Integrative Oncology Theory, Research, and PracticeSponsor : Fudan University Cancer Hospital, Shanghai, China The University of Texas M. D. Anderson Cancer Center, Houston, Texas, United StatesCo-sponsor : China Oncology JournalManagement Company : Shanghai Shangxun Culture Communication Co.,Ltd.Language: English and ChineseSecretariat: Fudan University Cancer Hospital No. 270, Shanghai Dong'an Road Zip code: 200032 Phone: 8621-64175590-1705 Fax: 862...

[more](#)

Cancer Experts



Professor Dennis J. Slamon

The Keynote Speaker:

In addition to his role as director of Clinical/Translational Research...



Professor Volker Diehl

The Keynote Speaker:

He has served as President of the German and



Professor Yan Sun

The Keynote Speaker:

Professor Yan Sun graduated from Peking Union Medical College in



Professor Lorenzo Cohen

Conference Co-Chairs

Dr. Lorenzo Cohen serves as a professor in the Department of



Sample of Key Note Lectures

- ❖ TCM & the U.S. National Cancer Institute's Research Priorities
- ❖ Individualizing Cancer Therapy; Utilizing the Best of Eastern and Western Medicine
- ❖ An Overview on International Oncology Acupuncture Practice
- ❖ Safety Issues in Acupuncture Practice for Cancer Patients
- ❖ Acupuncture on Immune Function Regulation for Cancer Patients
- ❖ Real-time Monitoring and Quantification of Acupuncture Stimulation: A Biomechanical Approach
- ❖ Functional Neuro-imaging in Acupuncture Research
- ❖ Bringing Evidence to the Use of Traditional Chinese Medicine in Children with Cancer: A Western Perspective
- ❖ Study of TCM Therapeutic Diets Improve the Quality of Life in Cancer Patients



Acupuncture (PDQ®)

Patient Version

Health Professional Version

Last Modified: 09/26/2008

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Human/Clinical Studies

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[Effect of Acupuncture on Chemotherapy-Induced Nausea and Vomiting](#)
[Effect of Acupuncture on Cancer and Cancer Treatment-Related Side Effects](#)

Effect of Acupuncture on Immune Function

At least seven human studies have evaluated the effect of [acupuncture](#) on [immune system](#) function in patients with [cancer](#) (see [table](#) at end of this section).[\[1-7\]](#) These studies were all conducted in China. Five were reported in English,[\[1-3,6,7\]](#) and two were reported in Chinese with English abstracts.[\[4,5\]](#)

Four randomized controlled trials,[\[1,2,4,5\]](#) a nonrandomized clinical study,[\[3\]](#) and two case series [\[6,7\]](#) found that acupuncture enhanced or regulated [immune function](#).

The first randomized controlled trial found that acupuncture treatment enhanced [platelet](#) count and prevented [leukocyte](#) decrease after [radiation therapy](#) or [chemotherapy](#), in comparison with the [control group](#).[\[1\]](#)

A second study involved a group of 40 [postoperative](#) cancer patients, 20 of whom received daily acupuncture treatment and 20 of whom served as a control group. After 3 days, [leukocyte phagocytosis](#) was enhanced in the treated group, compared with the [baseline](#) measurement ($P < .01$); no such enhancement was [observed](#) in the control group.[\[2\]](#)

A third study observed the effect of acupuncture on [interleukin-2 \(IL-2\)](#) and [natural killer \(NK\)](#) cell activity in the [peripheral blood](#) of patients with [malignant tumors](#). The patients were divided into an acupuncture treatment group ($n = 25$), which received 30 minutes of acupuncture daily for 10 days, and a nonacupuncture control group ($n = 20$). The data showed that IL-2 level and NK cell activity were significantly increased in the acupuncture group, compared with the control group ($P < .01$).[\[4\]](#)

A fourth study observed the effect of acupuncture on T-lymphocyte subsets ($CD4+$, $CD4+$, and $CD4+$)



TCM as CAM to Breast Cancer Treatment

As a CAM (Complementary and Alternative Medicine) ,TCM could:

- ❖ Reduce the risk of breast cancer
- ❖ Accelerate the post-surgical recovery
- ❖ Reduce the side-effect of Chemotherapy
- ❖ Reduce the side-effect of Radiation therapy
- ❖ Reduce the side-effect of Endocrine therapy
- ❖ Reduce the risk of reoccurrence



TCM - Reduce the Risk of Breast Cancer

- ❖ Increased mammography breast density is an important surrogate marker of increased breast cancer risk
- ❖ Acupuncture and TCM herbs have been shown in clinical experience and clinical trial to resolve breast lumps and reduce breast density
 - ◆ In one clinical trial of 460 women, 48.3% showed marked improvement and 20.9% showed some improvement.
- ❖ Long term smoking also increase the risk of breast cancer
(<http://www.bmj.com/cgi/content/full/325/7359/298/d>)
- ❖ Acupuncture and education seminar could help as much as 60% patient to quit at the end of treatment, and maintaining a 25–30% quit rate at six months, concluded after a meta-analysis of several recent clinical studies
(ACUPUNCTURE ASSISTANCE FOR WITHDRAWAL FROM TOBACCO SMOKING, <http://www.itmonline.org/arts/nicotin2.htm>)



TCM - Accelerate the Post-surgical Recovery

- ❖ Common post operation symptoms: pain, anesthesia-induced nausea and vomiting, short-term diminished mobility, bruising, constipation, fatigue and lymphedema.
- ❖ According to clinical studies and clinical experience, TCM herbs and acupuncture could accelerate post-operative recovery by:
 - ◆ Reducing pain, therefore reduce anesthetic usage and dependency
 - ◆ Speeding up surgical wound healing and mobility regaining
 - ◆ Reducing swelling and bruising
 - ◆ Encouraging regular bowel movement
 - ◆ Reducing post-operative fatigue
- ❖ Strengthen the body for subsequent radiation and chemotherapy



TCM - Reduce the Side-effect of Chemotherapy

- ❖ Common side effect of chemotherapy: nausea and vomiting, irritable bowels, decreased white blood cell (WBC), poor appetite, fatigue, poor memory and concentration, and hair loss
- ❖ During and post chemotherapy treatment, TCM herbs and acupuncture could:
 - ◆ Reduce nausea, vomiting & irritable bowel movement
 - ◆ Increase WBC
 - Study1: 48 patients with chronic leucopenia, acupuncture shown to improve 90% of the patients' WBC and other markers of immune functions
 - Study2: 121 patients with leucopenia who were undergoing chemotherapy showed a significant increase in WBC counts following 5 days of daily acupuncture and moxibustion treatment.
 - ◆ Increase appetite & stamina
 - ◆ Increase memory and concentration,



TCM - Reduce the Side-effect of Radiation Therapy

- ❖ Common side effects of radiation therapy: fatigue, local burns and ulceration, scarring, constipation, dry mouth & excessive thirsty, agitation and insomnia.
- ❖ According to clinical studies and clinical experience, treatment with TCM herbs and acupuncture could:
 - ◆ Reduce redness, dry, scaly, itchy, swollen and painful local skin, ulceration, fibrosis.
 - ◆ Minimize the risk of radiation pneumonitis & cardiotoxicity
 - ◆ Reduce constipation
 - ◆ Reduce dry mouth & excessive thirsty
 - ◆ Reduce agitation and insomnia



TCM - Reduce the Side-effect of Endocrine Therapy

- ❖ Common side effect of endocrine therapy: hot flash and excessive sweating, irregular menstruation, loss of libido, insomnia, dry skin and vagina.
- ❖ According to clinical studies and clinical experience, TCM herbs and acupuncture could:
 - ◆ Reduce hot flash and excessive sweating
 - ◆ Regulate menstruation
 - ◆ Increase appetite and sex drive
 - ◆ Reduce skin and vaginal dryness



TCM - Reduce the Risk of Reoccurrence

- ❖ The risk of breast cancer reoccurrence could be significantly reduced with an enhanced immune system.
- ❖ Breast cancer patients' immune system are often weakened by the cancer and subsequent treatment.
- ❖ According to clinical studies and clinical experience, acupuncture and TCM herbs could significantly increase the immunity, according to:
 - Study1: 48 patients with chronic leucopenia, acupuncture shown to improve 90% of the patients' WBC and other markers of immune functions
 - Study2: 121 patients with leucopenia who were undergoing chemotherapy showed a significant increase in WBC counts following 5 days of daily acupuncture and moxibustion treatment.



Safety Concerns of Acupunctures & TCM Herbs

- ❖ The safe practice of acupuncture and herbal medicine has been continually documented over many centuries
- ❖ Reports of adverse reactions to acupuncture & herbal medicine are extremely rare in clinical practice
- ❖ Most of the reported cases are caused by:
 - ▲ Poor quality control of herbs – reports of heavy metals, pesticide residues...
 - ▲ Misuse of herbal medicine – **Ephedra - ma huang**, safely used for thousands of years to treat asthma and hay fever and cold in TCM, but misused in dietary supplement industry. Banned by USA FDA and Health Canada.
 - ▲ Malpractice – improper sterilization of needles and skins causing infections.

Myth and Controversy about Acupuncture



- ❖ A completely unfamiliar paradigm & philosophy
- ❖ Currently unexplainable by modern science
- ❖ The meridians, the most important cornerstone of acupuncture, don't actually correspond to any recognized body system.
- ❖ Incomprehensible for thin needles placed on the skin to produce significant physiological changes
- ❖ A few decades-old practice in North America, although it has been continually practiced thousands of years in China
- ❖ There is an insufficient number of double blind and placebo controlled studies available, possibly due to lack of interest and funding
- ❖ Current clinical study protocols undervalue the efficacy of acupuncture

TCM Herbs & Acupuncture in Clinical Studies



- ❖ Clinical trials are increasing at an accelerated rate in the West
 - ▲ Results are mixed, but encouraging
 - ▲ Some landmark studies are changing westerners perceptions
- ❖ Most clinical studies undervalued the acupuncture due to inappropriate design that does not reflect the manner in which acupuncture is traditionally practiced. For example:
 - ▲ Selection of test subjects only according to diseases, not syndromes
 - ▲ Standard acupoints on every participant, rather than specific treatment unique to each individual
 - ▲ Selected acupoints are not allowed to change when symptoms change
- ❖ Many clinical studies on herbs focus on active ingredients of certain herbs, not the efficacy of herbal formulas per TCM.
 - ▲ Some herbs are toxic when used alone, but not toxic and very effective when used in a formula (Ephedra etc).

Thanks for listening!



❖ Questions

❖ For further information regarding to:

- ◆ this presentation and future engagements
- ◆ acupuncture and Chinese herbal medicine
- ◆

❖ Contact us at: 514 483 6669 or ainazhang@sinocare.ca



Appendix



The Determinants of Traditional Chinese Medicine & Acupuncture Utilization for Cancer Patients with Simultaneous Conventional Treatment

C.-Y. PU, V.M. LAN, C.-F. LAN, H.-C. LANG,

1 Institute of Public Health and Department of Social Medicine, National Yang-Ming University, Taiwan

2 School of Nursing, Eastern Michigan University, Ypsilanti, MI, USA

3 Institute of Health and Welfare Policy & Health and Welfare Policy Research Center, National Yang-Ming University, Taipei, Taiwan

4 Institute of Hospital and Health Care Administration, National Yang-Ming University, Taipei, Taiwan

Correspondence to Chung-fu. Lan, Institute of Health and Welfare Policy & Health and Welfare Policy Research Center, National Yang-Ming University, Taipei, Taiwan (e-mail: cflan@ym.edu.tw).

KEYWORDS: Cancer • traditional Chinese medicine • acupuncture • conventional treatment • healthcare utilization • logistic regression

ABSTRACT: This paper investigates the determinants of traditional Chinese medicine (TCM) and acupuncture utilization for cancer patients who are simultaneously having conventional Western medical treatments. This study used five leading cancers in Taiwan, namely cervical, breast, lung, liver and colorectal cancers. A total of 2499 cancer patients were interviewed, of which 2034 had full information and were analysed. Logistic regressions were used for both TCM and acupuncture. The results showed that type of cancer and cancer duration determine the utilization for alternative treatments. While socio-economic factors also affect choice of alternative medicine, the magnitude differs by types of alternative treatment and cancer. Compared with men and older patients, women and younger patients tend to prefer alternative medicine, and patients from south have higher preference for alternative medicine, which could be a reflection of local culture. Our results are useful for the government to determine higher users of TCM and acupuncture among cancer patients, and make policies to suit these patients' needs.

European Journal of Cancer Care Volume 17 Issue 4, Pages 340 - 349

Published Online: 4 Jun 2008 © 2008 Blackwell Publishing Ltd



Acupuncture for the Treatment of Hot Flashes in Breast Cancer Patients, a Randomized, Controlled Trial

Hervik J, Mjåland O.

Pain Clinic, Vestfold Hospital, Tonsberg, Norway, jill.hervik@siv.no.

Acupuncture has been used to treat the problem of hot flashes in healthy postmenopausal women. The object of this study was to investigate the efficacy of acupuncture in women with breast cancer suffering from hot flashes as a result of anti-oestrogen medication. In a prospective, controlled trial, 59 women suffering from hot flashes following breast cancer surgery and adjuvant oestrogen-antagonist treatment (Tamoxifen) were randomized to either 10 weeks of traditional Chinese acupuncture or sham acupuncture (SA). Mean number of hot flashes at day and night were recorded prior to treatment, during the treatment period as well as during the 12 weeks following treatment. A validated health score (Kupperman index) was conducted at baseline, at the end of the treatment period and at 12 weeks following treatment. During the treatment period mean number of hot flashes at day and night was significantly reduced by 50 and almost 60%, respectively from baseline in the acupuncture group, and was further reduced by 30% both at day and night during the next 12 weeks. In the sham acupuncture group a significant reduction of 25% in hot flashes at day was seen during treatment, but was reversed during the following 12 weeks. No reduction was seen in hot flashes at night. Kupperman index was reduced by 44% from baseline to the end of the treatment period in the acupuncture group, and largely maintained 12 weeks after treatment ended. No corresponding changes were seen in the sham acupuncture group. Acupuncture seems to provide effective relief from hot flashes both day and night in women operated for breast cancer, treated with Tamoxifen. This treatment effect seems to coincide with a general health improvement measured with the validated Kupperman index.

Breast cancer research and treatment

ISSN: 0167-6806 (Print)

1573-7217 (Electronic)



Acupuncture in the Rehabilitation of Women after Breast Cancer Surgery-- A Case Series

Alem M, Gurgel MS. Department of Gynecology and Obstetrics, School of Medicine, Universidade Estadual de Campinas, UNICAMP, Brazil.

OBJECTIVE: To evaluate the effect of acupuncture on rehabilitation of motor function, reduction in lymphoedema and improvement in perceived heaviness and tightness in the arms of women who had undergone breast cancer surgery.

SUBJECTS AND METHODS: Twenty nine women who had had mastectomy or segmentectomy with axillary dissection, presenting with lymphoedema and/or a decrease in movement amplitude of the upper limb ipsilateral to surgery were studied. The patients underwent 24 acupuncture sessions once a week from February to December 2004. The movement amplitude of shoulder flexion and abduction and circumferential measurements of the arm, forearm and wrist were evaluated before and after one, three and six months of treatment. Statistical analysis was performed by Friedman's test.

RESULTS: Significant improvements in range of movement of shoulder flexion and abduction ($P < 0.001$), degree of lymphoedema ($P = 0.016$), and sense of heaviness and tightening ($P < 0.001$) in the affected limb after six months of therapy were observed. For circumferential measurements of the arm, forearm and wrist, no significant improvement between the different periods of treatment was observed.

CONCLUSIONS: Acupuncture in rehabilitation after breast cancer surgery was shown to be associated with improvements in movement amplitude of the shoulder, symptoms of heaviness and tightness in the arm, and the degree of lymphoedema. However, controlled trials should be performed to ascertain whether the results were due to the natural history of the complaint or the acupuncture treatment.

Acupuncture Med. 2008 Jun;26(2):87-93.



Long-term Follow-up of Acupuncture and Hormone Therapy on Hot Flushes in Women with Breast Cancer: A Prospective, Randomized, Controlled Multicenter Trial.

[Frisk J](#), [Carlhäll S](#), [Källström AC](#), [Lindh-Astrand L](#), [Malmström A](#), [Hammar M](#).

Division of Obstetrics and Gynaecology, Department of Molecular and Clinical Medicine, Faculty of Health Sciences, University Hospital of Linköping, Sweden.

OBJECTIVE: To evaluate the effects of electro-acupuncture (EA) and hormone therapy (HT) on vasomotor symptoms in women with a history of breast cancer. **METHODS:** Forty-five women were randomized to EA (n = 27) for 12 weeks or HT (n = 18) for 24 months. The number of and distress caused by hot flushes were registered daily before, during and up to 24 months after start of treatment.

RESULTS: In 19 women who completed 12 weeks of EA, the median number of hot flushes/24 h decreased from 9.6 (interquartile range (IQR) 6.6-9.9) at baseline to 4.3 (IQR 1.0-7.1) at 12 weeks of treatment ($p < 0.001$). At 12 months after start of treatment, 14 women with only the initial 12 weeks of EA had a median number of flushes/24 h of 4.9 (IQR 1.8-7.3), and at 24 months seven women with no other treatment than EA had 2.1 (IQR 1.6-2.8) flushes/24 h. Another five women had a decreased number of flushes after having additional EA. The 18 women with HT had a baseline median number of flushes/24 h of 6.6 (IQR 4.0-8.9), and 0.0 (IQR 0.0-1.6; $p = 0.001$) at 12 weeks.

CONCLUSION: Electro-acupuncture is a possible treatment of vasomotor symptoms for women with breast cancer and should be further studied for this group of women.

Climacteric. 2008 Apr;11(2):166-74.



Randomized, Controlled Trial of Acupuncture for the Treatment of Hot Flashes in Breast Cancer Patients

Deng G, Vickers A, Yeung S, D'Andrea GM, Xiao H, Heerdt AS, Sugarman S, Troso-Sandoval T, Seidman AD, Hudis CA, Cassileth B.

Memorial Sloan-Kettering Cancer Center, 1429 First Ave, New York, NY 10021, USA.

PURPOSE: To determine the immediate and long-term effects of true acupuncture versus sham acupuncture on hot flash frequency in women with breast cancer.

PATIENTS AND METHODS: Seventy-two women with breast cancer experiencing three or more hot flashes per day were randomly assigned to receive either true or sham acupuncture. Interventions were given twice weekly for 4 consecutive weeks. Hot flash frequency was evaluated at baseline, at 6 weeks, and at 6 months after initiation of treatment. Patients initially randomly assigned to the sham group were crossed over to true acupuncture starting at week 7. **RESULTS:** The mean number of hot flashes per day was reduced from 8.7 (standard deviation [SD], 3.9) to 6.2 (SD, 4.2) in the true acupuncture group and from 10.0 (SD, 6.1) to 7.6 (SD, 5.7) in the sham group. True acupuncture was associated with 0.8 fewer hot flashes per day than sham at 6 weeks, but the difference did not reach statistical significance (95% CI, -0.7 to 2.4; $P = .3$). When participants in the sham acupuncture group were crossed over to true acupuncture, a further reduction in the frequency of hot flashes was seen. This reduction in hot flash frequency persisted for up to 6 months after the completion of treatment.

CONCLUSION: Hot flash frequency in breast cancer patients was reduced following acupuncture. However, when compared with sham acupuncture, the reduction by the acupuncture regimen as provided in the current study did not reach statistical significance. We cannot exclude the possibility that a longer and more intense acupuncture intervention could produce a larger reduction of these symptoms.

Journal of Clinical Oncology. 2007 Dec 10;25(35):5584-90.



Acupuncture for Chemotherapy-associated Cognitive Dysfunction: A Hypothesis-generating Literature Review to Inform Clinical Advice

[Johnston MF](#), [Yang C](#), [Hui KK](#), [Xiao B](#), [Li XS](#), [Rusiewicz A](#).

Center for East-West Medicine, Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, USA.

There is an emerging consensus that between one fifth and one half of breast cancer patients experience chemotherapy-associated cognitive dysfunction. Research shows that patients with cancer are often interested in acupuncture for symptom relief. A clinical question thus arises: What should physicians advise their patients regarding the use of acupuncture to alleviate or ameliorate chemotherapy-associated cognitive dysfunction? The authors review and synthesize 2 bodies of relevant research literature: (1) the developing literature on the etiology and nature of chemotherapy-associated cognitive dysfunction and (2) the literature concerning acupuncture for neurological diseases and psychological issues. There is evidence that acupuncture may be effectively used to manage a range of psychoneurological issues, some of which are similar to those experienced by patients with chemotherapy-associated cognitive dysfunction. The evidence of efficacy is more promising for psychological than neurological conditions. Given evidence of possible efficacy combined with evidence of demonstrated safety, we suggest that physicians should support patient decisions to use acupuncture services for chemotherapy-associated cognitive dysfunction, especially given the lack of proven alternatives.

Integrated Cancer Therapy. 2007 Mar;6(1):36-41.

Introduction to Traditional Chinese Medicine

- ❖ **History and fundamental theories of TCM**
- ❖ **Diagnostic principles and techniques of TCM**

History of TCM

500 B.C

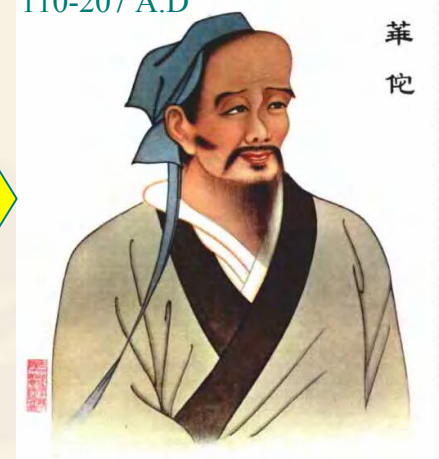


扁鵲
秦越人

- ❖ The Yellow Emperor's Classic of Internal Medicine, 230 B. C.
- ❖ Inventor of herbal anesthesia
- ❖ The Divine Husbandman's Classic of the Materia Medica, 500 AD.
- ❖ Canon on the Origin of Acupuncture and Moxibustion, 907-1368 A.D.



110-207 A.D



華佗

1518-1593 A.D



李時珍

- ❖ Ben Cao Gong Mu, consisting of 52 volumes at the time of its printing, 1518-1593.
- ❖ Over 20, 000 books existed by the beginnings of 20th century .



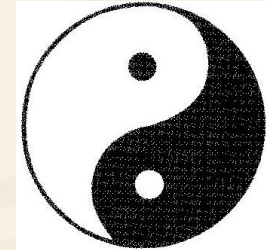
1583-1640 A.D



張景岳

The Five Fundamental Theories

- ❖ The theory of Yin and Yang
- ❖ The theory of Five Elements
- ❖ The theory of Viscera and Bowels
- ❖ The theory of the Meridians (Channels and Collaterals)
- ❖ The theory of Jing (essence), Qi (vital energy), Blood and Body Fluid.



These theories are often used together to guide the diagnosis and treatment of diseases by TCM practitioners and they are the cornerstones of TCM !



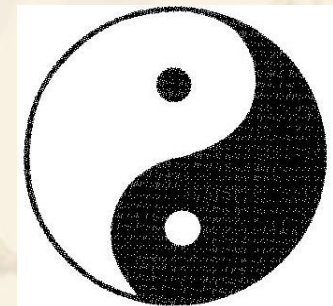
TCM Treatment Characteristics

- ❖ Diagnose the syndromes (nature of the illness), according to eight diagnostic principles, to determine:
 - ▲ Pathogenic factors
 - ▲ Pathogenesis
 - ▲ Location
 - ▲ Prognosis
- ❖ Diagnosis and treatment based on an overall analysis of signs and symptoms (Bian Zheng Shi Zhi)
 - ▲ The same disease can have different syndromes and therefore to be treated differently. (example: ???)
 - ▲ Different diseases can have similar syndromes therefore would to be treated similarly. (example: ???)

The First Fundamental Theory



- ❖ The theory of Yin and Yang – originated in ancient Chinese philosophy, it proclaims that the universal existence of the two ever opposing, yet supplementing aspects in each and everything.
- ❖ The theory of Yin and Yang states:
 - ▲ The opposition and interdependence of Yin and Yang
 - ▲ The Waxing & Waning, and the transformation between Yin & Yang
- ❖ The theory of Yin and Yang embodied in every aspect of TCM's theoretical system. it could be used to explains:
 - ▲ The tissues and structures of the human body
 - ▲ The physiological function of the human body
 - ▲ The pathological changes of the human body
 - ▲ The diagnose and treatment of diseases
 - ▲ The property, flavor and function of TCM herbs



The Second Fundamental Theory



- ❖ The theory of Five Elements proclaims that Wood, Fire, Earth, Metal and Water are five basic substance that constitute the material world.
- ❖ Attribution of thing in light of the theory of Five Element, TCM made a comprehensive comparison and study of all kinds of thing and phenomena in nature and in human body. Examples:

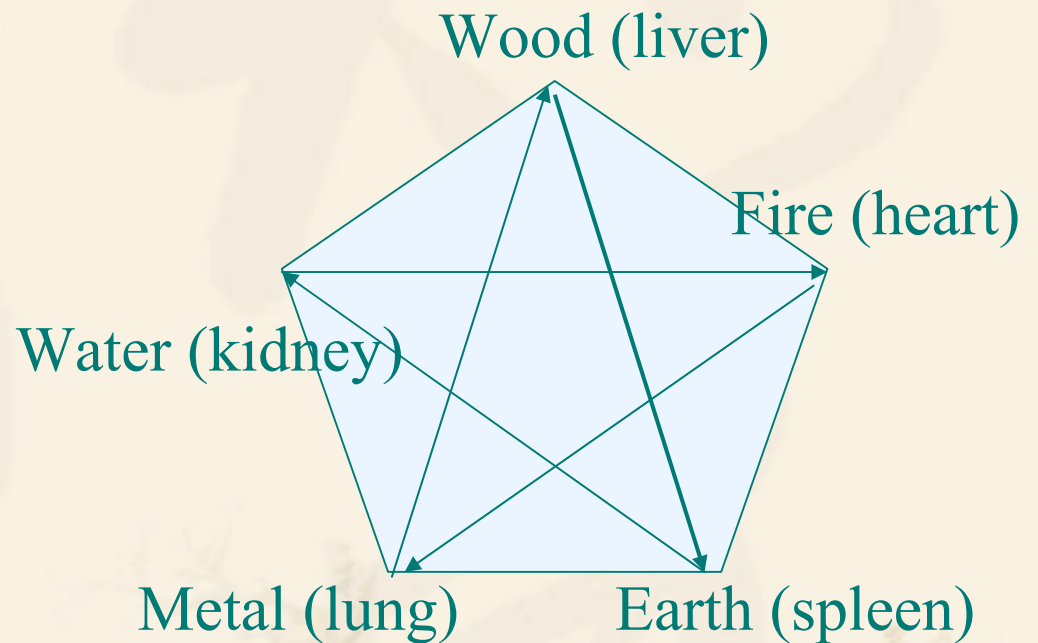
Five Elements	Viscera	Bowels	Sense Organs	Emotional Activities	Color
Wood	Liver	Gall Bladder	Eye	Anger	Green
Fire	Heart	Small Intestine	Tongue	Joy	Red
Earth	Spleen	Stomach	Mouth	Over-thinking	Yellow
Metal	Lung	Large Intestine	Nose	Grief	White
Water	Kidney	Urinary Bladder	Ear	Fear	Black

The Second Fundamental Theory



❖ Relationship between the five elements

- ▲ Generation
- ▲ Restriction
- ▲ Subjugation
- ▲ Reverse restriction



❖ The Five Elements theory explains

- ▲ Physiological relations among Five Viscera
- ▲ Pathological influences among the Five Viscera

❖ The Five Elements theory guides the diagnose and treat diseases



The Third Fundamental Theory

❖ The theory of Viscera and Bowels

- ▲ Five Viscera (Heart, Lung, Spleen, Liver and Kidney)
- ▲ Six Bowels (Gallbladder, Stomach, Small Intestine, large Intestine, Bladder & Triple Burners)
- ▲ The connotations differ from those of western anatomy concepts
 - In TCM, they are not only anatomic units, but more importantly as concepts of physiology and pathology.

Western Anatomy	Chinese Medicine
Heart	Heart and part of the nervous system
Lung	Respiratory system, water metabolism, blood circulation and the functions of the vegetative nervous and immune system
Spleen	Digestive system, blood coagulation and body fluid metabolism
Liver	Liver, part of the central nervous and vegetative nervous systems, blood and visual organ.
Kidney	Kidney, urinary, reproductive, and part of endocrine and nervous system.

The Fourth Fundamental Theory



- ❖ The theory of meridian (also known as channels & collaterals)
- ❖ The meridians make the human body an organic whole. They:
 - ◆ Link with each other and connect the superficial (sense organs & five tissues) to interior (viscera & bowels), and upper body to lower body
 - ◆ Transport Qi and Blood to nourish the whole body
 - ◆ Transmit feedback, induce stimulation, and regulate physiological functions
- ❖ This theory is absolutely essential for Acupuncture, but also important in Moxibustion, Tuina, herbology, and therapeutic exercises.

The Fifth Fundamental Theory



- ❖ The Jing, Qi, Blood and Body Fluid theory
 - ▲ TCM believes that the Jing, Qi, Blood and Body Fluid are the basic components of the body and maintain the life activities of the human body.
 - ▲ The Jing, Qi, Blood and Body Fluid supply the energy needed by viscera & bowels, channels & collaterals, tissues and other organs for performing their physiological functions.
 - ▲ The formation and metabolism of the Jing, Qi, Blood and Body Fluid also depend on the normal physiological functions of viscera & bowels, channels & collaterals, tissues and other organs.



Eight Diagnostic Principles

- ❖ Differentiation of:
 - ▲ Yin and Yang syndrome
 - ▲ Exterior and interior syndromes
 - ▲ Cold and heat syndromes
 - ▲ Fullness and deficiency syndromes

Complex as they are, all TCM syndromes (the nature of illness) can be categorized and described according to these eight principles.

Example:



Diagnostic Techniques

- ❖ **Interrogation** (detailed questions about stool, urine, menstruation, sleeping pattern, eating habits, past medical history, etc)
- ❖ **Inspection** (looking at facial complexion; tongue's shape, color and coating; eye' color, body shape, posture, expression, etc)
- ❖ **Auscultation (hearing) and Olfaction (Smelling)**
- ❖ **Pulse taking and palpation**

Today, a well-trained acupuncturist can also use the results of modern diagnostic technology to improve his diagnosis.

Therapeutic Tools



- ❖ Acupuncture
- ❖ TCM herbs
- ❖ TCM massotherapy (Tuina),
- ❖ Therapeutic exercise (Tai Ji & Qi Gong)
- ❖ Dietary regulation (food therapy).

In China, TCM consists of about 80% herbs and 20 % acupuncture & Tuina.

In Canada, however, TCM is about 80% acupuncture and 20% herbs.



TCM Treatments Process

- ❖ Diagnosis according to Five Fundamental theories and Eight Diagnostic Principles to determine the underlying syndromes, including:
 - ▲ Pathogenic factors
 - ▲ Pathogenesis
 - ▲ Location
 - ▲ Prognosis
- ❖ Establish treatment orientation
- ❖ Select one or more appropriate therapies
 - ▲ **Acupuncture**
 - ▲ **Chinese herbal medicine**
 - ▲ Tuina (Chinese Massotherapy)
 - ▲ Therapeutically exercise – Tai Chi & Qi Gong
 - ▲ Dietary regulation

Bian Zheng (Identify Syndromes)



Illnesses in Western Medicine	TCM syndromes
Hot flash, sore lower back & knees, insomnia, night sweat forgetful, irritability, amenorrhea, scanty menses and infertility.	Kidney Yin deficient
Sore lower back and knees, cold limbs and extremities, frequent urination, chronic fatigue, frequent loose stool, infertility, water retention and obesity.	Kidney Yang deficient
Retarded child growth, scanty menses, amenorrhea, infertility, low libido, tinnitus and poor memory.	Kidney Jing deficient
Fatigue, tinnitus, frequent and clear urination, dripping urination, enuresis, thin and profuse menses, metrostaxis (never clear) and threatened abortion.	Kidney Qi deficient
Distending breast pain, depression or anger, dysmenorrhea and irregular menstruation.	Liver Qi Stagnation
Dizziness, distending headache, irritability, burning chest pain, insomnia, sudden tinnitus.	Flaming-up of Liver fire
Virginal infection, yellowish and stinky leukorrhea, bitter taste in mouth, headache, red face and eyes.	Dampness heat in Liver and gallbladder meridian



Shi Zhi (Treatment)

Menopausal symptoms	Possible TCM syndrome	Treatment orientation
Irritability, depression.	Liver Qi Stagnation	Move Liver Qi
Palpitation, bloating, anxiety, nervousness, insomnia (unsound sleep).	Heart & Spleen Qi Deficient	Nourish Heart and Spleen Qi
Sore lower back & knee, loose stool, cold extremities, water retention, frequent urination.	Kidney and Spleen Yang deficient	Tonify Kidney and Spleen Yang
Hot flashes, night sweat, insomnia (wake up at 3~5 am).	Kidney and Liver Yin deficient	Nourish Kidney and Liver Yin
Nausea, Diarrhea, constipation indigestion.	Disharmony between the liver and spleen/stomach	Harmonize liver with spleen/stomach