Scientific Studies Support the Use of Acupuncture for Oncology Patients

By Changzhen Gong, Ph.D.

In China, practitioners of traditional Chinese medicine (TCM) have used acupuncture to address the symptoms of cancer for several thousand years, which is documented in Chinese medical texts. As knowledge of acupuncture began to diffuse beyond Asia in the 20th studies soon acknowledged the ability of acupuncture to control pain and nausea. Today, the application of acupuncture therapy to cancer patients is not confined to China, but is being used and studied around the world. Patients who seek alternatives to drug therapy for cancer-related symptoms and treatment-related side effects find that acupuncture has become one of the most popular, widely-accepted complementary treatments in the field of oncology.

A considerable body of evidence shows that acupuncture has a regulating effect on neurological, immune-system, and endocrine processes; and clinical observations confirm that acupuncture has many beneficial effects during cancer therapy. Scientific proof is mounting that acupuncture is effective treatment for cancer-related symptoms including pain, nausea and vomiting, xerostomia (dry mouth), and hot flashes, as well as quality-of-life issues such as fatigue, depression, anxiety, and insomnia. There is also proof that acupuncture has powerful results when used in the management of side effects brought on by medical interventions of surgery, chemotherapy and radiotherapy. Compared with many other interventions, acupuncture is safe, non-invasive, and has minimal side-effects.

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Moreover, the use of acupuncture to treat patients with cancer and the symptoms that arise from conventional cancer treatment is currently one of the most robust fields of scientific acupuncture research. The following paragraphs cite four recent cancer-related scientific studies which validate acupuncture therapy and point the way for further investigation into this field.

An Italian study conducted by the Department of Radiotherapy and Oncology at San Gerardo Hospital, Monza, Milan evaluated the efficacy of acupressure for insomnia (acupressure stimulates acupuncture points manually, rather than with needles).

Of twenty-five study patients with sleep disorders, fourteen of them had cancer. They were treated with acupressure for at least two consecutive weeks. A 60% overall improvement in the quality of sleep was noted for the 25 patients, and an even higher improvement rate of 79% was noted for the cancer patients. This study confirms previous clinical data showing the efficacy of acupressure in the treatment of sleep disorders, particularly in cancer-related insomnia.

A study conducted by Molassiotis, et.al, and reported in the December, 2012 issue of the Journal of Clinical Oncology, was designed to assess the effectiveness of acupuncture for cancer-related fatigue (CRF) in patients with breast cancer. The randomized controlled trial compared 227 patients who received acupuncture and usual care, with 75 patients who received usual care alone (“usual care” consisted of giving patients a booklet with information about managing fatigue). Acupuncturists needled three pairs of acupoints once a week for six weeks. After six weeks, with 246 completing participants, general fatigue levels were assessed using the Multidimensional Fatigue Inventory (MFI).

Other measurements included the Hospital Anxiety and Depression Scale, Functional Assessment of Cancer Therapy-General quality-of-life scale, and expectation of acupuncture effect. Results showed significant improvement in general fatigue levels in the acupuncture group. The intervention also improved all other fatigue aspects measured by MFI, including physical fatigue and mental fatigue, anxiety and depression, and quality of life. This study concluded that acupuncture is an effective intervention for managing the symptom of CRF and improving patients’ quality of life.

Xerostomia (dry mouth) after head/neck radiation is a common problem among cancer patients. Quality of life (QOL) is impaired, and available treatments are of little benefit. A small pilot study comparing the effects of acupuncture and sham acupuncture on xerostomia symptoms was conducted at the Fudan University Shanghai Cancer Center by Meng, et.al., and reported in the July, 2012 issue of the European Journal of Cancer. Twenty-three patients were randomized to real acupuncture (N=11) or to sham acupuncture (N=12), with the objective of determining whether acupuncture could prevent xerostomia among head/neck patients undergoing radiotherapy.

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Patients were treated three times per week during the course of radiotherapy. They were assessed by both subjective and objective measures during radiotherapy, and were followed for one month after radiotherapy. In this small study, true acupuncture given concurrently with radiotherapy significantly reduced xerostomia symptoms and improved QOL when compared with sham acupuncture. Researchers concluded that large-scale, multicentre, randomized and placebo-controlled trials were justified, based on the results of their pilot study.

A study called “Acupuncture as palliative therapy for physical symptoms and quality of life for advanced cancer patients” was published in the June, 2010 issue of Integrative Cancer Therapies. Researchers assessed the effects of administering acupuncture to patients with advanced ovarian or breast cancer in regard to patients’ subjective experience of their symptoms and quality of life (QOL).

In this single-armed prospective clinical trial, ambulatory patients with advanced cancer received 12 acupuncture sessions over 8 weeks, with follow-up treatments at weeks 9 and 12. Symptom severity was measured before and after each acupuncture session, and a composite QOL assessment tool was completed at five time points. The 32 assessed patients self-reported improvement in anxiety, fatigue, pain, and depression immediately after treatment, and significant improvement over time for patients with anxiety and depression.

QOL measures of pain severity and interference, physical and psychological distress, life satisfaction, and mood states showed improved scores during treatment, with sustained benefit at 12 weeks.

This pilot study demonstrated that an 8-week outpatient acupuncture course was feasible for advanced cancer patients and could produce a measurable benefit. Researchers also concluded that acupuncture is underutilized as an adjunct cancer therapy.
AAAOM Graduate brings TCM to Mayo Clinic

By Kristin Weston, L.Ac., MSOM

American Academy of Acupuncture and Oriental Medicine is proud to announce that one of our graduates, Travis Young MSOM, L.Ac., has recently accepted a position with Mayo Clinic Health System—Red Cedar in Menomonie, WI. Young will be providing acupuncture services at the Center for Prevention and Physical Rehabilitation there.

Young was quoted in the Dunn County Newspaper as saying “I am excited to be able to offer this service locally for people in our community who are suffering and searching for options.” The news article went on to say that in addition to acupuncture, “Young also provides some services under the scope of acupuncture that do not involve needles. Gua sha, also known as dermal scraping, and cupping are used to help with certain pain conditions without using needles.”

According to the Dunn County News, acupuncture at the Mayo Clinic Health System—Red Cedar is provided on a cash basis with no referral required.

Call Red Cedar Physical Rehabilitations at 715-233-7740 if you would like to make an appointment.

Young joins many successful graduates of the AAAOM Master Degree in Acupuncture and Oriental Medicine program that are now working within a western care system such as a clinic or hospital.

Congratulations Travis Young, L.Ac.!
Traditional Chinese medicine (TCM), which has a written history of more than two thousand years, is firmly rooted in the natural world. Natural processes of birth, growth, decay and death, seasonal cycles, and the interplay of the elements affect all human beings, and have strongly influenced TCM theories of disease and wellness.

Ancient Chinese doctors could not analyze cancer cells under a microscope, but they would have been able to locate tumors, perform autopsies, and see how various organs had been affected. They could also observe the disease process, its progression, and the signs and symptoms presented by cancer patients at each stage. From the holistic viewpoint of Chinese medicine, cancer cells and tumors can be viewed as a seed, while the body can be viewed as the soil. A body which has an imbalance of Yin and Yang provides good soil for the growth of cancer seeds. Bodies with balanced Yin and Yang are bad soil for the growth of cancer seeds.

What are some of the conditions or predispositions which provide “good soil” for cancer seeds? The basic internal cause of Yin/Yang imbalance is deficiency of Qi, Blood, Yin and/or Yang. Long-standing deficiencies can lead to excess conditions of stagnation, phlegm and heat. External pathogens such as heat, cold, dampness and toxicity can attack the body and become lodged in tissues and organs. These complex combinations and interactions of Qi, Blood, Yin, Yang, internal and external, excess and deficiency can produce “good soil” for cancer seeds in any area of the body. However, different organs in the body are, by their nature, prone to developing specific patterns of imbalance.

For example, according to TCM theory, the Lungs dominate Qi. According to five-element theory, the Lungs are classified as Yin-metal, prefer a moist (Yin) condition, and are damaged by dryness. Therefore, patterns of lung cancer are almost always based in Qi and Yin deficiency, and the Lungs are easily attacked and damaged by radiation therapy, which is classified as Yang-fire. The zang-fu partner of the Lungs, the Large Intestine, is classified as Yang-metal. It is easily attacked by Yin-fire, which manifests as damp heat. So the pattern for Large Intestine cancer is always damp-heat syndrome.

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As for treatment, modern Western medicine specializes in treatments which target the “cancer seed,” like chemotherapy and targeted radiotherapy. But traditional Chinese medicine specializes in treating the “soil.” It is a well-known fact that our bodies often produce cancerous cells, but most people will not go on to develop cancer. The scientific explanation for this is that our immunological system kills the mutated cancer cells. TCM theory says that this soil is not suitable for cancer seed growth. In clinical practice, Chinese medicine focuses on treating the disease-causing syndrome, or pattern. If this treatment is successful, TCM practitioners say that the soil has been changed, and the patient will be able to “carry cancer to his age,” meaning that the cancer seed is still there, but will not progress or metastasize, allowing the patient to live out his natural life.

In recent years, the development of integrative medicine has allowed modern medicine and traditional medicine to combine effectively in the treatment of cancer patients. For example, one of my patients was treated with radiotherapy for lung cancer, but then developed radiation-related pneumonia. Hormone treatment and antibiotic treatment were unsuccessful in treating the pneumonia. Since the patient’s TCM pattern was deficient Lung Yin and dry heat attacking the Lungs, I adopted the treatment principle of clearing heat and nourishing Yin. After five days of drinking a Chinese herbal decoction, the patient’s pneumonia was resolved. More and more often, modern medicine and Chinese medicine are working together to provide positive outcomes to cancer patients. Many studies have shown Chinese medicine to be effective in controlling some side effects of chemotherapy and radiotherapy such as pain, nausea, vomiting, and hair loss.
Traditional Chinese medicine (TCM) has been practiced for several thousand years, evolving unique theories and modalities of treatment for every disease and health condition experienced by human beings. It has its own understanding about the occurrence, development and treatment of cancer. The following is a brief introduction to the prevalent TCM view of cancer origins and treatment.

**Pathogenesis of Cancer in TCM:** in general, the disease formation of cancer is complex, taking place over a period of time, with various contributing factors. TCM theory recognizes three most likely pathogenic pathways to the development of cancer: toxic heat; Blood stasis/phlegm accumulation; and deficiency patterns of Qi and Yin.

**Toxic heat** is the most important pathologic factor contributing to the development of cancer. “Toxic heat” is differentiated from “normal pathogenic heat” by its strength and severity. Toxic heat is much more powerful than regular pathogenic heat, and damages the body more severely, even causing death. Both kinds of heat can be generated by internal processes or by external “invasions.” The most common internal pattern is for deficiency of Qi and Blood to result in stagnation of Qi and Blood, damage to yin fluids, and accumulation of phlegm.

Common *external causes* of normal pathogenic heat include infections, allergic reactions, or exogenous heat (like sunburn). In the pre-industrial age, external causes of toxic heat conditions included snakebite, virulent infectious diseases, or natural poisons. The modern world has added more external sources of toxic heat, such as radiation exposure and an array of toxic chemicals.

**Toxic heat in cancer patients can be the result of congenital constitution, long-standing emotional stress, improper diet, or exposure of the body to external radiation or chemicals.**

All these factors can produce heat conditions in the human body. When they are strong enough, they may cause cancerous changes.

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The empirical evidence which supports the TCM theory that toxic heat is the strongest contributor to the manifestation of cancer is as follows: First, most patients in the advanced stages of cancer have a very dark red tongue, which indicates both strong heat and some kinds of Blood stagnation. Secondly, at the later stage of cancer, many patients exhibit manifestations of Qi and Yin deficiency, such as weight loss, fatigue, etc. According to Yin/Yang theory, strong heat damages yin fluids. The ancient Chinese medical textbook, the Yellow Emperor's Internal Classic, says "strong fire eats Qi" (consumes the Qi of the body). Thirdly, the Chinese herbs which have been scientifically proven to be effective in controlling the growth of cancer cells, such as Ban Zhi Lian, Bai Hua, and She She Cao, are all herbs which have the function of clearing toxic heat in Chinese medicine.

Another aspect of toxic heat as a contributor to cancer is its nature as a yang pathogen. Yang energy is very active. This may be a possible reason why cancer is prone to metastasize to other parts of the body.

Blood Stasis and Accumulation of Turbid Phlegm: The normal free flow of Qi and Blood in the body may be impaired for any number of reasons. When Qi and Blood are deficient, they may slow down enough to stop and stagnate in places. Stagnation or stasis of Qi and Blood causes pain, and can create heat. Strong toxic heat, whether from internal or external sources, may stagnate in certain areas of the body, blocking the movement of Qi, Blood, and body fluids. When body fluids are stagnant and subjected to heat, they solidify into phlegm, which is the origin of tumors and masses.

Deficiency of Qi and Yin: For people with either a constitutional or an acquired tendency to Qi and Yin deficiency, this internal deficiency may lead to the development of stagnation, heat, accumulation of phlegm into tumor masses, and ultimately to the manifestation of cancer. In the advanced and end stages of cancer, Qi and Yin deficiency are common in all cancer patients, as the effects of toxic heat accumulate in the body. In most cases, by the final stage of the cancer process, the yin fluids of the body are depleted and exhausted. Qi deficiency is also common in the advanced and later stages of cancer, partly because toxic heat continues to damage body Qi, and partly because when Spleen Qi and Stomach Qi are deficient, the body is unable to digest food adequately to generate replacement Qi.
TCM Treatment of Cancer

Over the centuries, TCM practitioners developed herbal formulas and acupuncture treatments to address the pathological conditions which were considered to cause cancer, and to help patients deal with the symptoms of cancer. In modern times, these TCM treatment modalities have been very effective in supporting patients who are undergoing standard cancer treatment such as radiation therapy and chemotherapy. Interestingly, a number of the Chinese herbs which were traditionally used for clearing toxic heat have been found to inhibit the growth of cancer cells, or even kill cancer cells. More research needs to be done in this area. Following are some TCM herbs and treatment principles which have successfully addressed cancer-related symptoms.

Clearing toxic heat: Since toxic heat is the most important pathogenic factor of cancer, clearing toxic heat is a basic treatment for cancer. In the clinic, the most commonly-used herbs for cancer include Ban Zhi Lian, Bai Hua, She She Cao, etc. These herbs were traditionally used for conditions caused by toxic heat such as carbuncles, snake bites, or swelling and pain due to toxic heat.

Dissolving phlegm, dissipating nodules and removing blood stasis: Tumor masses are considered to be a result of Blood stasis and phlegm accumulation due to toxic heat stagnation. Therefore, herbs with the function of dissolving phlegm and removing Blood stasis are often used when there are tumors. Such herbs include Ban Xia, Zhe Bei Mu, San Leng, and E Zhu. Compared with the herbs for Clearing toxic heat and the herbs for tonifying Qi and Yin, phlegm-dissolving herbs tend to be used as a supplement only, and are far less important than the other two groups.

Tonifying Qi and Yin: Groups of herbs with the function of tonifying Qi and Yin are used in the early, advanced and later stages of cancer. This is because cancer is a process in which toxic heat continually damages the Qi and Yin of the body. Since there are no herbs in Chinese medicine which are strong enough to stop toxic heat and kill cancer completely, a better option is to support the Qi and Yin of the body, so that the vital Qi can resist toxic heat effects and slow down the progress of cancer.

Chinese medicine can play a big role in this aspect as a supplementary treatment to chemotherapy and radiotherapy. Herbs commonly used for this purpose include Huang Qi, Huang Jing, and Gou Qi Zi.

Symptom-based treatment: As the cancer advances, many other pathologic changes will also happen. For example, nausea and vomiting due to Stomach Qi deficiency, Yin deficiency, or turbid phlegm obstructing the Stomach can be treated with specific herbs such as Ban Xia, Chen Pi, Zhu Ru, etc. Numbness of limbs and other forms of neuropathy due to chemotherapy are diagnosed in TCM as toxic heat blocking the meridian collaterals. In this case, acupuncture or herbs that clear toxic heat and remove blockage from collaterals are a good option.
Acupuncture Proves Effective for Chemotherapy-Induced Nausea and Vomiting
By Qin Chu, Ph.D.(China), TCMD, L.Ac.

For cancer patients, chemotherapy-induced nausea and vomiting is a common side effect of standard cancer treatment which can severely impair a patient's quality of life. Although anti-emetic medications have improved, many patients still suffer from these symptoms. In my twenty years as an acupuncture practitioner, I have found that acupuncture treatment can significantly reduce chemotherapy-induced nausea and vomiting.

In addition to the anti-emetic application described in this article, acupuncture can also improve patients’ appetites and immune system, and enhance their disease resistance, while they are preparing for or recovering from conventional anti-cancer therapies.

TCM pathogenesis of chemotherapy-induced nausea and vomiting: Intravenous chemotherapy for cancer is a development of modern medicine, so there is no reference to it in ancient Chinese medical texts. However, a category of “drug toxicity” does exist in TCM, because there is a long history of administering strong medicines to address serious conditions.

In TCM theory, the symptoms of nausea and vomiting indicate that it is the Spleen and Stomach which are primarily affected by the “external evil” of chemotherapy. Stomach qi normally descends, promoting digestion. But when the Stomach is attacked by toxicity, Stomach qi rebels and ascends, resulting in nausea and vomiting. Rebellious Stomach qi cannot support normal digestive function of the Spleen, resulting in deficient Spleen qi. Experience mental stress with depression or anxiety.

**TCM treatment principles:**
Tonify the Spleen, strengthen the Stomach, promote descending Stomach qi, and stop nausea.

**Standard acupuncture point prescription:**
RN 12; ST 36; PC 6; SP 4; HT 7.

**Needling method:**
RN 12 is punctured perpendicularly 0.5-1.0 cun; ST 36 is punctured perpendicularly 1.0-1.5 cun; HT 7 is punctured perpendicularly 0.3-0.5cun; PC 6 and SP 4 are punctured perpendicularly 0.5-0.8 cun. All the points are punctured with even reinforcing-reducing manipulation by rotating the needles. The needles are retained for 20 minutes. The treatment is done twice per week.

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Analysis of point prescription:

The overall effect of this standard point prescription is to **tonify the Spleen and Stomach, descend rebellious qi, stop nausea, and calm the spirit**. Additional points may be added, depending on each patient’s specific symptom presentation. Following is an analysis of individual points and combinations:

**RN 12**, located over the stomach on the body’s midline, is the Front-Mu point of the Stomach. RN 12 functions to regulate the Spleen and Stomach (middle Jiao), and promote the descending of rebellious qi.

**ST 36**, located near the knee, is the He-sea point of the Stomach meridian. ST 36 functions to tonify Spleen and Stomach qi.

**PC 6**, located above the wrist, is the Luo-connecting point of the Pericardium meridian and is one of the Confluent points connecting with the YinWei meridian.

PC 6 functions to nourish the Heart and calm the spirit, as well as regulating qi activity in the chest and middle Jiao.

**SP 4**, located on the foot, is the Luo-Connecting point of the Spleen Meridian and one of the Confluent points connecting with the Chong meridian. SP 4 functions to strengthen the Spleen and harmonize the middle Jiao. The combination of PC 6 and SP 4 is highly effective to treat disorders of the Stomach, Heart and chest, and promotes the normal downward descending of Stomach qi to stop nausea and vomiting.

**HT 7**, also located on the wrist, is the Yuan-Source point of the Heart meridian. HT 7 functions to nourish the Heart and calm the mind. The combination of PC 6 with HT 7 is especially useful to calm the spirit and reduce mental stress, since it is generally the case that cancer patients experience mental stress with depression or anxiety.
According to traditional Chinese theory and practice, the development of tumors is due to deficiency of body energy (qi) and dysfunction of the organs and viscera (zang/fu). We describe this process in TCM as: a pathogenic toxin enters the body and lingers in meridians, collaterals and viscera because of a weakened state of health. There exists an imbalance of yin and yang in the body which leads to qi stagnation, blood stasis, congealed phlegm, and toxin accumulation. The end result of this process is the formation of a tumor.

Qi deficiency is the major internal factor for this process, and the invading toxin is the main external factor. The growth of the tumor will further consume the qi of the body, making the qi deficiency even more serious. The formation and development of a tumor is the result of the struggle between vital energies and pathogenic factors in the entire body, with the tumor itself being the local manifestation.

Usually, the pathogenesis of a tumor is defined as “deficiency in root and excess in branch.” That means the local manifestation (the tumor) is excessive but the body itself is deficient, especially at the later stages of tumor development.

Radiotherapy and chemotherapy are standard treatments for a tumor. The side effects of these treatments, however, can affect a patient’s quality of life to the extent that he may consider abandoning treatment. In these cases, I have seen Chinese medicine make a difference in patient quality of life, and help a patient continue with his treatment. TCM doctors think of radiation therapy as a heat-fire pathogen, and of chemotherapy as a heat-fire toxin.

Chemotherapy is a way to use poison as a medicine to disrupt the cells that are forming the tumor. However, the heat-fire pathogen and toxin can further impair the movement of qi in the already-weakened body by damaging stomach and spleen energy, further consuming the vital qi of the body.

The impairment brought about by heat-fire can manifest as qi and yin deficiency, qi and blood deficiency (by interruption of the transportation and transformation function of stomach and spleen), and liver-kidney deficiency. A tumor patient will often experience more serious vital qi deficiency after the heat-fire pathogen or medicine treatment, as evidenced by lowered immune function.

The TCM treatment strategy for a patient who has experienced radiotherapy and/or chemotherapy usually includes herbal formulas from two main categories:

1.) Those that invigorate the spleen and tonify qi, and
2.) Those that tonify qi and nourish yin.

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1.) Invigorate spleen and tonify qi:

In this pattern, a patient often presents with common spleen and qi deficiency symptoms such as vomiting, nausea, diarrhea, abdominal distention, vertigo, lassitude, palpitation, and pale face. The herbal formulas Si Jun Zi Tang and Bu Zhong Yi Qi Tang are often used to treat this pattern. Single herbs frequently used for this pattern include Ren Shen, Huang Qi, Dang Gui, Shan Yao, Fu Zi, Yi Yi Ren, Shan Dou Gen, Tu Fu Ling, Ban Zi Lian, etc.

2.) Tonify qi and nourish yin:

In this pattern, a patient often presents with common qi and yin deficiency symptoms such as: dry mouth and throat; five-centers heat (feeling hot in the palms of the hand, soles of the feet, and upper chest); insomnia; tidal fever (feeling hot in the afternoon); night sweats; lassitude; red tongue; and thin and rapid pulse. Herbal formulas Sheng Mai Yin, Bu Gan Tang, or Liu Wei Di Huang Wang can be applied to this pattern. Frequently-used single herbs are Sha Shen, Tian Dong, Mai Dong, Gui Ban, Ban Zhi Lian, Xia Ku Cao, Bai Hua, and She She Cao.

Chinese Herbal Formulas being prepared in TCM pharmacy
In Chinese medicine theory, disease results from both external and internal imbalances. To varying degrees, a health problem will be influenced by an individual’s innate constitution, by the cumulative effects of lifestyle choices, and by an “attack” from the environment. Cancer is a complex condition, generally resulting from a number of influences. The basic internal state that predisposes one to cancer is deficiency of the fundamental substances: Qi, Blood, Yin and Yang. Deficiency leads to stagnation of these substances, which in turn leads to development of excess pathogenic factors including Blood stasis, phlegm, and toxic substances. Once a person develops cancer, standard interventions such as chemotherapy or radiotherapy can become pathogenic agents in themselves, causing Blood stasis and toxic heat, and further damaging the person’s Qi, Yin, and body fluids.

The holistic nature of Chinese medicine includes the use of Chinese herbal medicine and dietary therapy. Treatment of cancer symptoms and treatment side effects is based on the principle of Fu Zheng Gu Ben. “Fu Zheng” means assisting Zheng Qi (healthy Qi); “Gu Ben” means strengthening and consolidating Yuan Qi (source Qi).

The aim of treatment is to balance Yin and Yang and to harmonize the patient’s internal environment. As a holistic medicine, TCM focuses on strengthening the individual’s resistance to disease as much as mitigating unpleasant symptoms.

TCM modalities have proven effective in treating the side effects of conventional cancer treatment, such as nausea and vomiting, loss of appetite, and insomnia. They can control pain, and help to keep the immune system strong. There are specific herbal substances which are used to address particular conditions, regardless of the overall energetic evaluation. For example, the herb Huang Qi (Astragalus) in sufficient dosages may help prevent fatigue and raise white blood cell counts, allowing chemotherapy to continue.

Herbs such as Sha Ren (cardamom seeds) and Sheng Jiang (fresh ginger) are useful in preventing nausea. Herbs such as Ji Xue Teng (Caulis Ji Xue Teng) have demonstrated a potent effect for raising white blood cell counts.
The following recipes are often recommended to cancer patients in China as a healthful way to cope with symptoms of cancer and side effects of treatment:

**American Ginseng and Lian Zi (lotus seed) Soup**

*Ingredients:* (Note: 30g = 1 oz)
- American ginseng root (Radix Panacis) = 20g
- Lotus seed (Semen Nelumbinis) = 60g

*Preparation:* Rinse the ingredients; soak in water for 4 hours. Add a sweetener of choice to the liquid (Chinese cooks traditionally use rock sugar). Bring to a boil, reduce heat, and simmer for one hour, or until ingredients are soft.

*TCM Function:* Tonify Qi and Yin; invigorate the Spleen and Kidneys; and calm the spirit.

*Symptoms Treated:* Dizziness and sweating due to Yin deficiency pattern; shortness of breath; feeble voice; fatigue.

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**Fu Ling and Yi Yi Ren Porridge**

*Ingredients:*
- Fu Ling (Poria) = 20g
- Bai Zhu (Largehead Atractylodes Rhizome) = 15g
- Coix seed (Job’s Tears) = 30g
- Millet = 15g
- Rice = 100g
- Sugar = 30g

*Preparation:* a.) Make a decoction of the Fu Ling and Bai Zhu: add herbs to 1200 ml of water (approximately 5 cups), and bring to a low boil for 20 minutes. b.) Strain the liquid and discard the herb residue. c.) Add the coix seed, rice and millet to liquid decoction and simmer over low heat for 30 minutes until it turns into a thick soup. d.) Remove from heat, add sugar and serve.

*TCM Function:* Invigorate the Spleen and expel dampness.

*Symptoms Treated:* Fatigue; weakness; poor appetite; skin rashes; loose stools.
Prevent Cancer with Soy and Other Popular Chinese Foods

By Wei Liu, TCMD, L.Ac., Lic. Nutritionist

One out of three people alive today in the United States will ultimately die of cancer. More and more often, people in this country, including health professionals, are questioning the conventional treatments for cancer. Are surgery, chemotherapy, and radiation therapy the only options for cancer patients? Interestingly, since surgery, chemotherapy, and radiation therapy became the standard treatments for all cancer patients, data indicates no improvement in either the incidence of cancer or the survival rate. Many people are now turning to Eastern medicine to try to find an answer. My patients often ask me if Chinese medicine offers cures or preventive methods for cancer.

Many types of cancers appear to be diet-related. It has been estimated that 60% of cancers in women are diet-related. Evidence shows that some foods increase the likelihood of developing cancer, while others reduce the likelihood of developing cancer.

In Chinese medicine, diet is considered to be a major factor in cancer prevention. Many foods have been tested scientifically and found to contain anti-cancer agents. Some of the most exciting research has been done on soy beans and soy food products. Soy beans are considered to be one of the five sacred foods in China. For a typical Chinese family, every meal includes soy foods: soy milk for breakfast; tofu salad at lunch; a tofu and vegetable stir-fry for dinner. Even formal banquets feature many soy-based dishes, often marinated with garlic, sesame, soy sauce, or ginger. Soy products are easily made into noodles, breads, and snack foods, and are wonderful substitutes for meat, chicken, eggs, and cow’s milk.

Although Asian people have long claimed that soy foods promote increased health and longevity, it is only recently that Western researchers began performing scientifically controlled, double-blind studies on soy beans and their chemical constituents. When Asian scientists pointed out that cases of breast cancer and prostate cancer are significantly lower in Asian countries than in Western countries, and attributed this fact to diet; and when it was further pointed out that American women who consume soy foods have a fifty-percent lower incidence of cancer than women who don’t eat soy, many Western scientists decided it was time to investigate these phenomena.

So far, it has been discovered that soy beans contain at least five known anti-cancer agents, including protease inhibitors, phytoestrogens, saponins, and genistein. People have been aware for decades that soy beans contain protease inhibitors, but it was thought that protease inhibitors interfered with proper digestion, so they were actually removed from all soy products produced in the United States. Only now are protease inhibitors recognized as valuable cancer fighters that inhibit tumor growth by inhibiting the action of certain enzymes that promote tumor growth.

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Most people, including most health professionals, had never heard about genistein until 1993, when Dr. Herman Adlercreutz’s research on prostate cancer was cited in the Wall Street Journal. Genistein, a type of phytoestrogen, blocks the signal that triggers normal cells to become cancer cells, and is extremely effective in stopping the growth and spread of prostate cancer. Scientists have speculated that genistein may even be used as a cancer treatment. Although more than three hundred plants contain phytoestrogens, only soy beans produce genistein.

Phytoestrogens, which are heavily concentrated in soy, seem to create a favorable hormonal environment which prevents certain cancers from developing, especially breast cancer. The phytoestrogens in soy have a similar chemical structure to the estrogen produced by the human body, but phytoestrogens are considered to be “weaker” than the body’s natural estrogen. “Strong” estrogens which bind to the body’s estrogen receptors are recognized as being a triggering mechanism in the development of breast cancer. Unfortunately, the women in “advanced” countries have not only their naturally-produced estrogen to deal with, but also the strong estrogens that come from the environment – from water, from meat, or leached into our foods and beverages from plastic containers. When soy is consumed, the natural weaker estrogen in the soy binds with the body’s estrogen receptors, thus leaving fewer estrogen receptors available for the risky, stronger estrogen which is then discharged harmlessly from the body. The faster strong estrogens are metabolized and discharged, the less damage they can cause.

Until recently, soy beans have been under-appreciated in this country, and are often associated with animal fodder or extreme poverty. When I first came to America, I would extol soy foods to my patients, only to be met with skepticism. “Soy beans? – that’s cow food!” said one. A journalist told me he had eaten a lot of soy foods when he was a poor student. It is a big challenge for Americans to switch from meat and potatoes to tofu and soy milk, but health-conscious people are beginning to change.

Now that a variety of soy products are available in many city markets, it is well to recognize that some of them contain more phytoestrogens than others. In order to enjoy the maximum benefit from soy foods, I recommend that you purchase organically-grown soy beans whenever possible, and learn to make your own soymilk at home.

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Prevent Cancer with Soy ...
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Making Soymilk at Home:

Step 1. Soak 1 cup of dried soybeans in three cups of cold water for 8 hours.

Step 2. Combine each ½ cup of soaked soybeans with 3 cups water and grind in a blender at high speed for one minute into a fine slurry.

Step 3. Use a piece of nylon mesh to strain the soymilk into a pot or a large bowl.

Step 4. Cook the soymilk on a medium flame, boiling it for 5-10 minutes.

Step 5. Flavor the soymilk (if you like), and store it in the refrigerator.

Besides soy products, other cancer-preventing foods which are popular in China include green tea, cabbage, shiitake mushrooms, garlic, kelp, carrots, and cauliflower. Green Tea, the most popular drink in China, Japan and other Asian countries, contains powerful anti-cancer substances called catechins. Many studies show that green tea can dramatically block the development of various cancers. Epigallocatechin gallate (one of the most potent catechins) is found in the highest concentrations in green tea.

People often confuse green tea with black tea, Oolong tea, Jasmine tea, and many other Asian teas. All tea is made from leaves picked from the same plant – the difference is in the processing. Green tea leaves are simply picked and sun-dried; other teas are either fermented or cooked. It is the lack of processing that makes green tea contain the most potent anti-cancer agents. A leading physician, Dr. Hirota Fujiki, at Japan’s National Cancer Center Research Institute, claims that drinking green tea could be one of the most practical methods of cancer prevention available to the general public at present.

Cabbage, the most popular vegetable in the northern part of China, can be found in many traditional dishes, including stir-fry vegetables and dumplings. The Chinese value it, not only for its good taste, but also for its wonderful anti-cancer effect. Studies show that cabbage can speed up the metabolism of estrogen in the body. It is thought that slower metabolism of estrogen promotes breast cancer. Another very interesting study done on cabbage concerned guinea pigs who received high doses of radiation. The study showed that all of the guinea pigs who were exposed to high levels of radiation and did not have cabbage in their diet died; but the group of guinea pigs who ate cabbage had a very high survival rate. This study indicates that cancer patients who are receiving radiation therapy would be wise to include substantial portions of cabbage in their diet.

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Shiitake Mushroom. This brown and beefy-tasting mushroom has been used in Asian gourmet cooking for centuries as a substitute for meat. Its taste and texture are very different from that of regular mushrooms. It has gained fame as an immune system booster, widely recommended to cancer and AIDS patients. The biochemical in the shiitake mushroom that has been proven to augment immune system activity is called lenitan. Today it is possible to find shiitake mushrooms in many supermarkets and Asian groceries in the dried form. Fresh ones are also available in some co-ops. Shiitakes are delicious and can be prepared in a variety of ways: cooked or steamed with rice or noodles; or added to stir-fry and soups.

Garlic. As a food and a spice, garlic is used widely in both the East and the West. Scientific studies show that garlic can “deactivate” carcinogens, prevent the growth of cancerous tumors, and stimulate the formation of glutathione which detoxifies foreign materials. Garlic contains allicin which has antibiotic and anti-fungal properties. People call it a natural chemotherapy drug because of the way it destroys cancerous cells. It is especially preventive of colon and stomach cancers. One of garlic’s components, ajoene, is very toxic to malignant cells. The maximum benefit is achieved by eating raw garlic.

Kelp is a seaweed which tops the list of therapeutic Chinese foods for its anti-cancer properties. It is rich in many minerals and other special nutrients such as iodine. Traditional Chinese medicine believes that kelp can soften and reduce hard masses. It is also popularly used for weight control in China. It is so popular in Asian cuisine that it is considered a necessity in the Chinese and Japanese diet. Kelp soap, kelp shampoo, and kelp hair conditioners are extensively used in modern China.

Carrots. Most people already know that carrots contain high levels of beta carotene, and that beta carotene has an anti-cancer effect. Carrots are widely consumed around the world, but in many countries, especially in the West, people eat them raw. Experiments show that eating lightly-cooked carrots is much more beneficial than eating raw carrots, which confirms the ancient wisdom in traditional Chinese medicine. Traditional Chinese medicine practitioners have always recommended that their patients eat lightly-cooked carrots in order to get the best nutritional absorption. Recent research by Dr. Xiangdong Wang at Tufts University shows that beta carotene can change in the human body into a substance called retinoic acid, which is widely used to treat cancers.

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Cauliflower. In ancient times, Chinese medicine texts set out the theory that foods which look like tumors have an anti-tumor effect. In the West, the theory that “like treats like” is called the “Doctrine of Signatures.” Cauliflower, which looks exactly like a cancer tumor, has long been a folk remedy against cancer. Recently, its effects on cancer have been proven scientifically: it contains many cancer-fighting, hormone-regulating compounds, and is especially good for the prevention of breast and colon cancers.

An Anti-cancer Recipe: Chinese Stir-fry Vegetables

Ingredients:
1 teaspoon olive oil; 1 tablespoon soy sauce; 1 tablespoon of vinegar; 1 teaspoon grated fresh ginger root; 1 teaspoon sliced garlic. 2 cups sliced cabbage; 2 cups sliced shiitake mushroom; 1 cup sliced carrot; 1 cup fresh soy bean sprouts.

Preparation:
Heat olive oil in a wok. Add ginger root and garlic and stir-fry for one minute. Add cabbage, carrot, shiitake mushroom and soy bean sprouts and stir-fry for 4 minutes. Add vinegar and soy sauce and stir-fry for a few seconds. Serve with rice.
University of Minnesota Professors Present Cancer Research Findings to AAAOM Students, Alumni, and Faculty

Last year, AAAOM was honored to host informative lectures by two respected professors and researchers from the University of Minnesota. Dr. Ashok Saluja and Dr. Alvin J. Beitz conduct scientific research into disease mechanisms at their laboratories, and graciously shared some of their recent significant findings with lecture attendees.

Lunchtime lectures at AAAOM feature short talks in the speaker’s field of interest, and are open to AAAOM students and alumni, and members of the public, free of charge.

The first lecture, entitled “Pancreatic Cancer Meets Thunder God Vine,” was presented by Dr. Ashok Saluja on Thursday, March 28, 2013. Dr. Saluja is Professor and Vice Chair of Research at the University of Minnesota Medical School’s Department of Surgery. A Chinese herb, Lei Gong Teng (Tripterygium Wilfordii), is at the center of Dr. Saluja’s groundbreaking research in the treatment of pancreatic cancer. (The translation of Lei Gong Teng is “thunder god vine.”)

Cancer cells protect themselves with a “survival protein” called HSP 70. In 2007, Dr. Saluja and his collaborators found that pancreatic cancer cells produce a lot of HSP 70, making pancreatic cancer especially aggressive and difficult to treat, since regular chemotherapy drugs do not counteract HSP 70. Researchers found that a compound derived from Lei Gong Teng, called triptolide, works to halt the development of HSP 70 in tumor cells. However, it was difficult to administer triptolide as a drug, because it is not water-soluble. Dr. Saluja and his team patented a method to create an injectable chemotherapy drug from triptolide, which proved to be highly effective against pancreatic cancer in animal models. They named their discovery Minnelide, in acknowledgement of the University of Minnesota and the compound triptolide.

In his lecture, Dr. Saluja described the process and development of Minnelide, as well as the complexities physicians face in treating pancreatic cancer.

“Can Acupuncture Control Cancer Cell Growth?” was the title of Dr. Alvin J. Beitz’s lecture, presented on December 2, 2013. Dr. Beitz is the Chair of the University of Minnesota’s Veterinary and Biomedical Science Department, and a professor of anatomy and neuroscience. Dr. Beitz discussed his newly published research paper, “The Effect of Electroacupuncture on Osteosarcoma Tumor Growth and Metastasis: Analysis of Different Treatment Regimens,” and presented some basic neuroscience models of acupuncture and acupuncture analgesia.

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Osteosarcoma is the most common malignant bone tumor found in children and adolescents, and is associated with many cancer-related complications including pain and metastasis. Cancer patients have found that complementary and alternative medicine approaches can successfully address cancer pain, fatigue, and the side effects of chemotherapy. However, little is known about the effect of acupuncture treatment on cancer itself, in terms of tumor growth and metastasis.

Recently, Dr. Beitz’s laboratory conducted a study which evaluated the effects of six different electroacupuncture (EA) regimens on osteosarcoma tumor growth and metastasis in both male and female mice. The most significant positive effects were observed when EA was applied to the ST-36 acupoint twice weekly (EA-2X/3) beginning at postimplantation day 3 (PID 3), which produced robust reductions in tumor growth.

Conversely, when EA was applied twice weekly (EA-2X/7), starting at PID 7, there was a significant increase in tumor growth. EA-2X/3 treatment also produced a marked reduction in pulmonary metastasis, thus providing evidence for EA’s potential anti-metastatic capabilities. Dr. Beitz’s research interest also includes mechanisms underlying acupuncture’s anti-inflammatory and antinociceptive effects.

Lunchtime lectures at AAAOM feature short talks in the speaker’s field of interest, and are open to AAAOM students and alumni, and members of the public, free of charge. Find us at:

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