

Supportive Care for Cancer Patients During and After Chemotherapy Treatment

Abstract

Chinese medicine can help cancer patients go through chemotherapy by effectively reducing the various side effects of treatment and enhancing quality of life. This article offers an introduction to the author's four-phase approach to cancer support, which is based on the stages that cancer patients typically go through during and after chemotherapy, each of which requires a specific approach to treatment and specific lifestyle advice.

Introduction

In my clinical practice as an integrative primary care provider, I have often diagnosed cancer in my patients and referred them to local oncologists. As they started conventional treatment, I quickly began to recognise the toll chemotherapy, surgery and radiation had on them. Having trained in Chinese medicine, and specifically working with my mentor Dr Miki Shima¹ in supportive cancer care, I began treating those of my patients that were open to my integrative ideas of care. In my experience, these treatments sparked small but important movements toward a reduction of the side-effects of chemotherapy, such as improved appetite and reduced digestive symptoms, better sleep and energy, and weight gain. The benefits became apparent when I compared this patient group to those of my patients who were receiving allopathic treatment only. In time, I developed a four-phase approach based on the stages cancer patients typically go through during and after chemotherapy. This structure helped me categorise the most common health problems patients face and identify treatment priorities. I believe it can be of use to other practitioners working with the same client group. The present article is intended as an introduction to this approach.

Advances in the biomedical approach to cancer treatment

Current oncology research has applied many remarkable discoveries in molecular biology to the production of cutting-edge drugs for cancer treatment, leading to the development of a vast array of personalised drug therapies. One example is the use

of monoclonal antibodies (MAB), which are a part of our immune system. In our adaptive immune system, antigens or foreign materials - which are recognised as 'non-self' - can stimulate a T cell immune response, which in turn induces a B cell response. B cells then produce antibodies against the recognised antigen, leading to an immune cascade to destroy it. Since cancers originate from our own cells, they are often considered 'self' and go unnoticed by our immune surveillance. They do have protein receptors on their cell surface, which identify them as non-self, but the immune system does not recognise them as foreign - and therefore does not attack them. In the 1970s George Kohler and Cesar Milstein were able to take a specific myeloma cell line, or cell subspecies, and combine it with B cells in a way to produce specific antibodies to that specific myeloma antigen.² This opened the road to the creation of designer MABs that are currently used in cancer treatment. These uniquely created MABs attach to the specific non-self receptor on the cancer cell surface, making the cell recognisable as foreign, and therefore subject to immune attack. Examples include MABs that target the CD20 cell in non-Hodgkin's lymphoma and the HER2 (human epidermal growth factor receptor 2) seen in breast cancer.³

Another example of cutting-edge drug treatment includes a large group of drugs labelled 'molecular targeted therapies'. Normal cells modulate some of their internal functions using specific enzyme systems called kinases. Kinases act as the driver of specific molecular pathways, including cell replication. However, when specific kinases are activated by cancer cells, the outcome can be unrestricted

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Keywords:

Cancer, supportive cancer care, Chinese medicine, Japanese herbal treatment, Kampo, acupuncture, chemotherapy.

replication of that cancer species⁴. Currently, many kinase-inhibiting pharmaceuticals are being used to treat melanoma (B-RAF kinase inhibitor), non-small cell lung cancer (ALK³inhibitor) and B-cell blood malignancies (JAK² inhibitor) by preventing the activation of pathways that increase cancer cell replication.⁷

Another strategy cancer cells utilise for survival takes advantage of an immune response called 'checkpoint blockade'. Under normal circumstances, this response allows the immune system to control the amplitude of its response to a perceived threat, so that its reaction is gauged to the need. If there were no such control, autoimmunity could easily ensue. Cancer cells use this regulation to their advantage, as they co-opt the pathways that prevent the immune system from up-regulating its response to the increased replication of the cancer cells.⁸ Recently-introduced drugs have the ability to override these natural inhibitory signals. They act by taking the brakes off the inhibited immune system, activating our T cells' ability to seek out and destroy the malignant cells. Opdivo (nivolumab), an anti-PD-1 MAB, is an example of such new drugs, and is often used when other therapies for non-small cell lung cancer have failed. Human T cells carry cell surface receptor proteins (PDL-1), which regulate the extent of their immune response. Nivolumab is designed to unblock this receptor, thereby removing the inhibition on T cells and unleashing them to fight the cancer cells. Another MAB, called Vervoy (ipilimumab), activates the immune system by removing the blockade on the CTLA-4 receptor, another checkpoint inhibitor. By unblocking this checkpoint protein, which down-regulates the immune response, it allows cytotoxic T cells to destroy foreign appearing antigens.

The first assessment

Most of my cancer patients belong to one of two groups: those who are undergoing active chemotherapy – who are often referred to me by their oncologist – and those who come after the conclusion of their conventional treatment. The goal of the former is often simply to feel better; while the latter hope to build their energy and vitality, and return to the quality of life they remember having prior to their illness. In either case at the first meeting I explain my perspective on integrative cancer care. This is to allay possible concerns that I might recommend they steer away from biomedical treatment and to explain how I plan to help them feel better throughout the course of their therapies. Patients who have been cancer free for more than 30 days are considered 'in remission'. They need support to try and achieve 'cure', which is defined as being cancer-free for five years, during which time patients are under continued surveillance by their oncologists.

During the first meeting, I try to assess the patient's emotional state. I used to be more forthright in asking how someone is coping. With experience I came to see

that the expression of emotions becomes easier with the development of a trusting professional relationship. Now I wait and just offer a quiet focused time for patients to express their concerns. Talking with the patient's significant other and/or caregiver can also be helpful to gain insight into a patient's mood and demeanour. On their part, caregivers appreciate knowing how much we recognise and respect the work they do, in some cases managing virtually everything going on at home. In newly-diagnosed patients, it is not uncommon to recognise emerging patterns of PTSD (post-traumatic stress disorder), requiring referral to a psychologist and in some cases short-term medication.

In this first meeting, I explain the basic concepts of acupuncture treatment, including the channel system and how accessing its points can create changes in symptoms. I also discuss the complementary effect of the specific herbal formulas I use. To those undergoing chemotherapy, I mention the long-term and post-treatment goals of nourishing the body and returning to vitality from the depletion and toxicity of treatments. At some point during the course of chemotherapy, many patients express the overwhelming doubt, 'Is this therapy worth it?' They feel so unwell that they find it hard to believe their health will ever improve. When I recognise this attitude, my role is to remind them that the potential benefits of chemotherapy do make it worth it, and to support them to get through to the end, with the least amount of negative impact to their lives.

If the patient resonates with my approach and is ready to begin supportive care, I request records, including laboratory testing, imaging, physical exam findings and biopsies. Many patients arrive at my clinic after their workup and with a diagnosis, and most will have had surgery or have started chemotherapy or radiation. Sometimes people will bring all the relevant documentation with them, although oncology clinics usually require a written request before they issue it. By studying a case, I can see its chronology and how it has unfolded, and the thought process of the treating oncologist. Each case is unique. It is certainly possible to start just with the information the patients themselves can give you; however, studying their medical records can bring many insights that would be otherwise unattainable. For example, the oncologist's notes might contain their strategy for further care, or an honest appraisal of the challenges ahead, when the seriousness of the disease has not been conveyed to the patient verbally.

Finally, medical records also contain details of the current drug therapy. Reviewing its possible side effects can bring light to the patterns of imbalance to be expected from a Chinese medicine perspective, which allows us to prevent them or treat them in time. Take for example, the side-effect profile of a common chemotherapy agent; paclitaxel (Taxol) includes a 60 per cent risk of neuropathy,⁹

which can be increased by the simultaneous use of other chemotherapy agents. As the condition is very difficult to treat, prevention is key. Neuropathy is not discussed in the English language literature on the treatment of cancer with Chinese medicine. However, my mentor Dr Shima understands peripheral neuropathy and chronic nerve pain in terms of Kidney deficiency against a background of combined Spleen and Stomach weakness and toxic heat in the Liver (from chemotherapy). Toxic heat damages the yin of Liver and Kidney, while a deficient Spleen and Stomach fail to nourish the Kidney, leading to neuropathy. If pain is the only symptom, Dr Shima sees this as Kidney yin deficiency. If pain is accompanied by signs of internal cold and cold extremities, the pattern is Kidney yang deficiency. The two commonly occur simultaneously. To prevent the occurrence of neuropathy, I also use supplements according a specific protocol, which is introduced in the case example at the end of this article.

Four-phase supportive treatment for cancer patients using Chinese medicine

As a result of the progress in the biomedical treatment of cancer, many patients today experience extended periods of remission, living with what is now starting to be regarded as a chronic disease. Not unlike coronary artery disease, or autoimmune diseases, cancer, while not curable, can in many cases be treated and managed so as to allow patients a high quality of life with minimal symptoms. This paradigm shift has opened the door to Chinese medicine as supportive treatment, first to help cancer patients through the intensity of conventional treatment, then to help them recover, rejuvenate and manage their condition in the long term.

Acupuncture is a mainstay for supportive care, and its role in controlling symptoms and improving quality of life in cancer patients has been widely recognised.¹⁰ In my clinic I regularly combine it with Chinese herbal formulas for increased effectiveness. This article offers a brief outline of the supportive treatment plan I use for my cancer patients, which is divided in four stages, corresponding to the four phases cancer patients undergoing chemotherapy typically go through, each being characterised by a specific constellation of symptoms and concerns. Phase-specific acupuncture and herbal treatment is discussed, as well as lifestyle advice. As there can be an overlap between phases, in the clinic it is not possible to draw absolute lines, so flexibility and creativity in treatment are imperative.

Phase one

The administration of chemotherapy, usually in the form of intravenous (IV) infusion, directly affects transportation and transformation of the Spleen and Stomach. Phase one formulas are therefore designed to relieve the ensuing acute symptoms of nausea, vomiting and, less commonly,

diarrhoea. Such symptoms typically reoccur cyclically with each infusion, in which case herbal formulas are used immediately after each treatment.

My mentor Dr Shima understands peripheral neuropathy in terms of Kidney deficiency against a background of combined Spleen and Stomach weakness and toxic heat in the Liver.

Phase two

Repeated cycles of chemotherapy inevitably weaken Spleen and Stomach function; hence supportive treatment between cycles of chemotherapy focuses on strengthening the digestive system, rather than controlling acute symptoms. This involves tonifying Stomach and/or Spleen qi, and yin and yang deficiency. Phase two formulas are usually introduced when acute reactions to drug treatment, as seen in phase one, have subsided and are stopped just before the next chemotherapy infusion.

Some patients tolerate their infusions with minimal acute gastrointestinal symptoms. If there are no acute symptoms after an infusion, these phase two formulas can be used from the start instead of phase one formulas.

Phase three

With the conclusion of the chemotherapy protocol, which is usually a three to six month cycle on the same drugs, the patient is normally given a break from drug treatment in order to assess its effect and determine the next step forward. For the patient, this is a time of recovery, and our goal in phase three is to begin to rebuild qi and blood. For those being treated for relapsing, recurrent or progressive disease, chemotherapy is often ongoing, in which case I continue to apply phase one and two principles, while attempting to introduce qi and blood tonics in small amounts.¹¹

Phase four

When remission is achieved, supportive treatment shifts to address the deeper, underlying deficiencies caused by protracted chemotherapy, and to support qi and blood through tonification of Kidney yin and yang. Phase three and four are often difficult to separate as they address the same imbalance at different levels of complexity and depth. As a rule of thumb, as Kidney tonics can be difficult to digest, first supporting the Spleen and Stomach by rebuilding qi and blood allows them to be better tolerated. Phase four formulas are used long term, as Kidney tonification is slow and gradual.

Although I have presented these as distinct and clearly marked phases, they sometimes overlap. Treatment

involves adapting to the constant changes in the patient's symptom presentation and is therefore not linear. Whenever one pattern clearly predominates, choosing a formula is relatively simple. If, however, the patient presents with a combination of distinct patterns, multiple formulas might be needed simultaneously. In this case Kampo recommends that the formulas are given separately, each at an appropriate time: qi and blood tonics before or during meals, Kidney tonics after meals, and qi/blood movers or pain formulas between meals. This separation is designed to allow each formula to be correctly 'read' by the body, while taking many formulas simultaneously would be confusing to the body. It is also important to not over-treat fragile patients, so when there are multiple concurrent issues, choosing a focus and correctly gauging the intensity of treatment becomes key.

Below we will look at each of the four phases in detail, including common symptoms, treatment with herbs and acupuncture, and advice given to the patient.

Phase one

Treatment in this phase commonly addresses digestive symptoms that immediately ensue from chemotherapy, but also radiation. These might include loss of appetite, queasiness (a churning feeling in the stomach), nausea (a feeling of impending vomiting), vomiting, indigestion and heartburn.

Spleen and Stomach functions are a key area in cancer support and detailed questions to assess their excess and deficiency should be asked. A strong digestive system that ensures adequate nutrition and hydration is necessary to absorb the vital nutrients required for tissue repair and immune protection. Severe vomiting or diarrhoea can cause life-threatening dehydration and electrolyte imbalances. As Chinese medicine practitioners, we are aware of the impact of Spleen and Stomach dysfunction on organ and channel qi, as well as wei qi (defensive qi), ying qi (construction qi) and their relationship - and how the health of the middle burner affects immunity and the risk of developing infections. Many chemotherapy agents may compromise immunity; the ensuing frequent infections, besides being a health threat in and of themselves, also require chemotherapy treatment to be modified, so as to not result in immune suppression and the development of complications.

Herbal medicine in phase one

The formulas used in this phase address Stomach dysfunction, which normally stems from damp, cold or heat accumulation. I prescribe herbal medicine exclusively in capsule form, which I find to be the best solution when working with North American patients. Each capsule is

500 milligrams and dosage spans between two and four capsules three times daily, depending on severity of symptoms, tolerability of the formula and weight of the patient. For all of the formulas discussed here, I start with a test dosage of one 500 milligram capsule three times per day. If no ill effects are noted, I raise the dosage to two capsules, three times daily. All being well, depending on patient size and symptoms, I further raise the dosage to three or four capsules, three times a day, for a specific time frame, based on what I am trying to accomplish. During chemotherapy this higher dosage may last for one to two weeks. For post-chemotherapy patients it may be one to two months. In this time, I keep checking the patient to reassess their symptoms and any changes in the abdominal pattern.¹² Below are the formulas I most frequently use with the criteria of their application:

Xiao Ban Xia Jia Fu Ling Tang (Minor Pinellia plus Poria Decoction) works well for nausea accompanied by tachycardia with an abdominal conformation of fullness in the epigastrium and water stagnation in the Stomach. I learned from Dr Shima that the Japanese Kampo practitioner Dr Mori OMD,¹³ chairman of the paediatric division of the Osaka College of Acupuncture and Moxibustion, recommended this formula particularly for children, saying that it has little interaction with standard chemotherapy and has the advantage of being palatable.

Xuan Fu Dai Zhe Tang (Inula and Hematite Decoction) works well for nausea at night, queasiness, tightness in the epigastrium and frequent belching. Its associated conformation is abdominal weakness; the pulse is weak.

Xiang Sha Liu Jun Zi Tang (Six-Gentlemen Decoction with Aucklandia and Amomum) is indicated for an abdominal conformation characterised by epigastric distension and a feeling of water movement in the upper abdomen,¹⁴ it works well for people in whom nausea is accompanied by emotional upset; it clears the head and improves the mood.

Ban Xia Xie Xin Tang (Pinellia Decoction to Drain the Epigastrium) is used for queasiness and dry heaves accompanied by an abdominal pattern of epigastric fullness with fluids detected on palpation. If the symptoms suggest a prevalence of heat rather than cold, I often have people mix this formula with ice water and sip it throughout the day. Sipping involves swallowing small quantities of the mixture rather than drinking whole mouthfuls, which could damage the yang.

Huo Xiang Zheng Qi San (Patchouli/Agastache Powder to Rectify the Qi) is stronger than *Xiang Sha Liu Jun Zi Tang* in reducing nausea, and is used for people suffering from abdominal distension and pain, with palpation revealing a tight and hard epigastric area.

Kampo medicine and abdominal palpation

I practise in the Japanese tradition of herbal medicine known as Kampo, which has its roots in ancient China (Han dynasty) and developed in Japan. In 1976, physicians began training in this style, and many Kampo formulas were included in the Japanese National Health Insurance programme. Currently more than 140 formulas are available under physician's prescription and paid for by the government.

Fukushin – the examination of the abdomen through palpation – is a key diagnostic tool used in Kampo medicine, and one with which many traditional Chinese medicine (TCM) practitioners are not familiar. It is based on the principle that the physical, emotional, mental and spiritual condition of a person are reflected in their hara (abdomen). Kampo posits that connecting with the hara through touch allows the understanding of the patient's condition that is necessary for the practice of superior acupuncture and herbal medicine. In fukushin the practitioner examines the entire abdomen of the patient with soft and light touch, following a specific sequence:

- First the practitioner checks the overall strength and weakness of the abdomen. Each abdomen will be somewhere on the continuum between the two extremes of tension and flaccidity. This finding reflects the general constitution of the patient. At the same time, any temperature variations and feelings of dryness, dampness or stickiness of the skin are also noted.
- The area under the left breast, over the rib-cage, is palpated for the presence of pulsation or abnormal movement; this reflects the condition of the Heart.
- The subcostal region is palpated for tightness of the muscles. This can be either or both sides and indicates Liver qi stagnation. The associated herb is Chai Hu (Bupleuri Radix).
- The area below the sternum (the epigastrium) is palpated for tightness, which is indicative of qi stagnation of the Liver, Stomach or Heart, and is associated with Ban Xia (Pinelliae Rhizoma) formulas.
- The rectus abdominis muscle is palpated for tightness, which is common in children and is understood to stem from Liver and Spleen deficiency resulting in Liver wind. The associated medicinal is Bai Shao Yao (Paeoniae Radix alba).
- The midline between the umbilicus and sternum is palpated with very light touch to identify abnormal aortic movements, which is a pulsation that is felt at a very superficial level. This indicates either Heart heat excess or deficiency of yin or blood, and shen disturbance; it needs to be differentiated from

abnormal aortic movements in the midline between the umbilicus and pubic area (indicating Kidney yin deficiency). Pulsations of the aorta on deep palpation are considered a normal finding.

- The side of the hand is used to tap lightly on the abdomen, checking for a sound of splashing water, which indicates fluid in the stomach or intestines. This is interpreted as cold damp in the middle jiao and Fu Ling (Poria) is the representative herb to treat it.
- The area approximately two inches around the umbilicus is palpated with deep pressure for soreness, which indicates cold toxins in the abdomen.
- The lateral and lower abdomen, from the anterior superior iliac spine (ASIS) to the groin, is where the lower segments of the ascending and descending colon are located. Tightness and spasm here suggest accumulation in the intestines; the associated herb is Da Huang (Rhei Radix et Rhizoma).
- Feeling a mass in the lower abdomen on the diagonal line between the umbilicus and the ASIS points to blood stagnation. In Kampo this is called oketsu, defined as local or generalised stagnation of blood, especially in the hara. Its manifestations could be, for example, varicose veins, haematomas, uterine fibroids, Raynaud's disease, menstrual clotting or headaches. Herbal formulas are prescribed along a continuum depending on the patient's strength, from *Si Wu Tang* (Four Substance Decoction) and *Dang Gui Shao Yao San* (Tangkuei and Peony Powder) for weak constitutions to *Tong Dao San* (Tangkuei and Carthamus Powder) and *Zhe Chong Yin* (Drink to Turn Back the Penetrating [Vessel]) for people of medium strength, to *Di Dang Tang* (Appropriate Decoction) and *Tao He Cheng Qi Tang* (Peach Pit Decoction to Order the Qi) for those with strong constitutions marked by excess.
- The area located between two to three inches below the navel and the pubic bone (the lower linea alba) is the Kidney area. Deficiency is recognised when the fingers sink into this area finding little or no resistance. It is not uncommon for this sign to be accompanied by weakness of the lower back. The herb associated with this pattern is Shu Di Huang (Rehmanniae Radix preparata).

The patient's symptoms are then combined with the results of the abdominal palpation to determine the pattern of illness, referred to as the shoh. The abdominal findings point to the key herb to be used in the treatment and to a family of formulas built around this herb, while the symptoms direct the practitioner to the most appropriate herbal formula within that family. There is

no disease diagnosis, only what is observed in a given patient at that specific point in time - the shoh - which is subject to change.

For example, if a patient has mild bilateral subcostal tightness, this would point to Chai Hu; if the abdominal examination also revealed tightness in the epigastric region, and the patient reported headaches, side rib pain, alternating chills and fever, *Xiao Chai Hu Tang* (Minor Bupleurum Decoction) would be the appropriate formula. If the subcostal tightness was accompanied by mild epigastric tightness and tension in the rectus abdominis, along with symptoms of headaches, alternating fever and chills, arthralgia and facial flushing, the shoh would point to *Chai Hu Gui Zhi Tang* (Bupleurum and Cinnamon Twig Decoction). If, on the other hand, the subcostal tightness was accompanied by mild epigastric and rectus muscle tensions with symptoms of cough, fever that comes and goes, tenes-

mus and cold limbs, the shoh would point to *Si Ni San* (Frigid Extremities Powder).

To take a different key herb, if the patient's abdominal exam reveals weakness of the lower linea alba, which feels soft and spongy, this points to Shu Di Huang. If the accompanying symptoms are urinary difficulty, lumbar pain and memory issues, the shoh calls for *Liu Wei Di Huang Wan* (Six-Ingredient Pill with Rehmannia). If the weakness along the lower the linea alba is accompanied by numbness in the lateral lower abdomen and muscle spasm of the lower rectus abdominis muscles, the shoh suggests a more severe deficiency of the Kidney; Shu Di Huang is still the principal herb, but it is here used in different proportions or combinations. This abdominal pattern only points to Kidney deficiency; together with symptoms of cold, it indicates Kidney yang deficiency, the appropriate formula for which is *Ba Wei Di Huang Wan* (Eight-Ingredient Pill with Rehmannia).

Frequency of treatment

During active chemotherapy treatment, I recommend patients to come on a weekly basis. However, if they have bothersome symptoms after their IV infusion, I suggest that they schedule their appointment within 24 to 36 hours after the infusion to lessen the symptoms. I also recommend that patients schedule appointments on the same day of the week and at the same time of the day, if possible, which in my experience reduces missed appointments.

Oral chemotherapy has only been introduced in the last few years and is now becoming increasingly available. Based on my limited experience with only a couple drugs, it seems to impact white blood cell counts and cardiac function, and, early on in treatment, digestion, which then tends to improve over time. Like those on IV treatments, I recommend that these patients also come on a weekly basis, if financially affordable, as frequent visits help maintain the body's balance. I use symptoms along with abdominal findings to determine whether formulas from phase one or phase two are appropriate.

Diet in phases one and two

During phase one and two, I encourage patients to eat cooked and easily digestible soups and stews. I often recommend they supplement their diet with protein shakes and smoothies, which provide basic nutrients in a form that allows for easy assimilation. My preference goes to a combination of rice and pea protein, or whey protein, as soy proteins can encourage angiogenesis (the formation of new blood vessels) due to the copper they contain.

Rather than recommending a specific diet, I suggest patients to focus on foods that are appealing to them. Oftentimes few things are, as the appetite wanes and

the sense of taste and smell diminish. However, I do recommend that they avoid refined sugars and processed foods, which often contain chemicals and preservatives as well as high amounts of sugar.¹⁵ High sugar intake combined with impaired mitochondrial function (from treatment) results in raised insulin levels. Insulin is a growth-promoting factor and a highly pro-inflammatory hormone, which can negatively impact the effectiveness of the chemotherapy. The effects of high insulin levels are also to be avoided post-treatment.

Acupuncture in phases one and two

In addition to reducing the digestive symptoms, I find frequent acupuncture treatments help to improve sleep, reduce anxiety and boost energy and mood. During the first sessions, I use a minimal number of points. My goals are to bolster and balance the system, reduce side effects of therapy and calm the shen, without over-stimulating or depleting the patient. For those that are extremely debilitated or older than 75 years of age, I often use gold-plated needles; gold is considered very tonifying and requires less manipulation to create an effect, whereas silver is sedating. During the first few days after chemotherapy treatment many patients have very low energy, and acupuncture is very helpful. The following points are often used: Dazhu BL-11 (Sea of blood, supports the bone marrow), Geshu BL-17 (tonifies blood), Ganshu BL-18 (supports the Liver and reduces tension), Shenshu BL-23 (supports Kidney qi), Weizhong BL-40 (supports the yang), Xingjian LIV-2 (for anxiety and insomnia), Fuliu KID-7 (warms Kidney yang), Sanyinjiao SP-6 (supports the Spleen and regulates the Stomach), Zusanli ST-36 (regulates and supports Spleen and addresses all digestive disorders), Zhongwan REN-12 (for Stomach disorders;

it regulates and tonifies Spleen, Stomach and Liver), Neiguan P-6 (regulates Heart and Blood, calms the mind) and Hegu L.I.-4 (tonifies wei qi). These points can be used throughout active chemotherapy.

In addition, the Eight Extraordinary Vessels can be treated to balance and strengthen the yuan qi (original qi). Their use is seldom taught in acupuncture schools, as little written material is available in English to guide their use. Treatment of the yuan qi through the Eight Extraordinary Vessels requires adequate qi to allow its redistribution and rebalancing. In debilitated patients caution must be exercised so as to not overtax an already weakened system, causing post-treatment fatigue and tiredness. Therefore I sometimes wait until the completion of chemotherapy treatment when the underlying deficiencies can be strengthened using herbs, acupuncture and diet. As the pulse and abdomen reflect improvement, I introduce Extraordinary Vessel treatment. The most commonly used master-couple pairs during cancer treatment are the Chong Mai (Penetrating Vessel): Gongsun SP-4 / Neiguan P-6 and the Ren Mai (Conception Vessel): Lieque LU-7 / Zhaohai KID-6; which Extraordinary Vessel should be treated is decided on the basis of the pulse patterns.¹⁶

Phase two

Chemotherapy treatments are typically given for extended periods of time, during which symptoms such as nausea and vomiting gradually lessen, while chronic loss of appetite, fatigue, muscle weakness, loose stools and coldness often become prominent and persistent issues. Even those with strong constitutions and extremely good diets will ultimately experience symptoms of Spleen deficiency, leading to - and resulting from - chronic nutritional depletion.

Herbal medicine in phase two

Phase two formulas are usually prescribed between chemotherapy cycles, to improve digestion and the absorption of nutrients, and to tonify qi and blood. During this time, my goal is to strengthen the patient in preparation for the next cycle of treatment. The same formulas can also be used for patients who are receiving localised abdominal radiation, if Spleen qi deficiency develops, as often seen in the treatment of gynaecological malignancies. Some of the commonly used formulas during this phase are as follows.

Si Jun Zi Tang (Four-Gentlemen Decoction) is effective for poor appetite with an associated pattern of pallor, weak voice, borborygmus and abdominal weakness. For this purpose it is taken 30 minutes prior to meals. Once appetite has improved, it can be reduced to the lowest effective dose, for long term use.

Liu Jun Zi Tang (Six-Gentlemen Decoction) also improves digestion while relieving the patient's subjective feeling of abdominal distension, which is combined with

weight loss, fatigue, cold hands and feet and a weak pulse. Abdominal features of this formula include overall weakness or laxity on palpation with concurrent firmness of the epigastrium, and a feeling of fluid in the stomach area. This formula can be used for an extended period of time as it is well balanced, not too heavy nor too drying and is also useful for leaky gut.

Phase two formulas are usually prescribed between chemotherapy cycles, to improve digestion and the absorption of nutrients, and to tonify qi and blood.

Bu Zhong Yi Qi Tang (Tonify the Middle to Augment the Qi Decoction) is used for those with a delicate constitution with weak pulse, fatigue and decreased gastro-intestinal function. The abdominal pattern is generalised abdominal weakness and pulsation at the umbilicus.

Li Zhong Tang (Regulate the Middle Decoction) is prescribed for symptoms of insomnia, pain in the chest, loose stool, oedema and cold hands and feet. The abdomen is weak and cold, there is epigastric tightness, a sensation of fullness in the stomach, and a feeling of fluid in the upper abdomen. The associated pulse is slow, deep and weak.

A note on 'detoxification'

During the weeks between chemotherapy cycles, patients sometimes express concerns over the toxicity of the drugs they have taken, and ask about doing something to 'detox'. The molecules that result from chemotherapy agents indeed need to be broken down. Detoxification implies mobilising all these molecules and removing them from the body via specific metabolic pathways in the liver and kidneys. To put it simply, toxins are first taken from their storage, primarily in the adipose tissue, and transported to the liver. Here they are converted into water-soluble metabolic compounds (phase one) that can be then altered via a second metabolic process (phase two) and are finally excreted. For the detoxification pathways to work efficiently, specific nutrients must be present that allow these complex transformations to occur. Most cancer patients are nutrient-depleted from the challenges associated with their treatment, and their detoxification system is already overloaded. As a result, their liver's ability to perform effectively is often compromised. The intermediate metabolites from poor phase one or two function can be more dangerous than the sequestered toxins stored in the adipose tissues. Moreover, supplements taken at this stage may alter the speed at which the liver phases work, potentially increasing or decreasing the rate at which chemotherapy agents are removed from the body. Therefore my approach is conservative and

I wait until treatment has been completed and then use laboratory testing to judge the body's metabolic condition before beginning a detox programme.¹⁷

A note on interactions

We should also be alert to and anticipate possible interactions between herbs, supplements, prescription and over-the-counter drugs that the patient might be taking, as the actions of chemotherapy agents may be changed either favourably or unfavourably by products – whether natural or otherwise – competing for receptors for metabolism. One reliable resource on interaction is the *Natural Medicine Comprehensive Database*.¹⁸ A recent case illustrates this point well. The patient was starting on Velcade (bortezomib), a protease inhibitor, and was in the habit of drinking large amounts of green tea. Green tea contains epigallocatechin gallate (EGCG), which can cause a reduction in the effectiveness of this specific chemotherapeutic agent. At the other end of the spectrum, curcumin has been shown to act synergistically with the drug 5-fluorouracil to inhibit a specific colon cancer cell line.¹⁹

Due to the lack of clinical studies in the English language on Chinese herbal formulas, the use of Chinese herbs as supportive treatment for cancer is met by oncologists with a spectrum of responses ranging from mild suspicion to frank opposition, especially if used simultaneously with IV treatment. If the oncologist expresses concerns over possible adverse interactions, I instruct patients to stop all herbs and supplements 24 hours prior to each chemotherapy infusion, and to restart them the day after their IV.

Phase three

With the conclusion of the chemotherapy cycle, the oncologist will often try to wait, usually two to three months, to allow the inflammatory effects on the tissues to abate and healing to take place, before rescanning the body. If tests are carried out too soon, inflammatory reactions might be mistaken for cancer growth and result in a false positive diagnosis of recurrent disease. Evaluations performed after this break include laboratory testing for cancer markers, blood counts, organ function tests and radiologic imaging. The results determine further care plans. If the disease is unchanged or aggravated, then a shift in treatment and the introduction of new drugs may be necessary. If the tests reveal an absence of disease – remission – the choice is either watchful waiting or to continue the effective treatments.²⁰

If there is no plan to resume treatment, this time marks the beginning of phase three, which focuses on rebuilding qi and blood and lasts, on average, from three to six months, depending on the level of depletion. During phase three, I recommend that the patient continues receiving regular acupuncture at least twice a month, and

weekly if financially feasible. During this early time of recovery patients are typically very motivated to resume a more 'normal' life and seem very committed to treatment. As time passes, patients with no relapse can become complacent and less diligent.

Herbal medicine in phase three

Representative phase three formulas are as follows:

Ba Zhen Tang (Eight Treasure Decoction) is used for blood and qi deficiency with a focus on blood, manifesting as paleness, weakness of digestion, low back pain, fatigue and anorexia. The lower abdomen looks full on observation but feels weak and soft when pressure is applied.

Shi Quan Da Bu Tang (All-Inclusive Great Tonifying Decoction) is prescribed for debility of both qi and blood. Symptoms include anorexia, digestive weakness, sallow complexion and muscular spasms and pain. The abdominal pattern is generalised abdominal softness; the pulse is weak. In the Kampo tradition this formula is empirically used for debility after illness or post-partum and it is the go-to formula post-surgery.

Ren Shen Yang Rong Tang (Ginseng Decoction to Nourish Luxuriance) is said to increase vitality and nourish the Liver, Kidney, Lungs and Heart. I use it for patients who are emaciated and present symptoms of generalised weakness, night sweats, emaciation, fatigue, anorexia, insomnia, cognitive dysfunction, chills and diarrhoea. It is considered useful for those who do not eat well and appear malnourished.

Nutritional supplements can also be added during this phase for metabolic support.

While I have divided the use of the herbal formulas into distinct phases, there can be a blurring of lines, especially between phase three and four. For example, patients in phase three can display pronounced Kidney weakness alongside qi and blood deficiency, in which case it is beneficial to add small amounts of Kidney tonics, which are then increased as the qi and blood become stronger.

Sleep and fatigue

Sleep disturbances and fatigue are widespread problems, especially in elderly people and the chronically ill. However, they become ubiquitous amongst chemotherapy patients, with treatments either causing insomnia or intensifying the severity of a pre-existing sleep problem.

Common factors that disturb sleep in this patient group are anxiety and depression, steroid treatments that accompany infusions, and adrenal imbalances. Chemotherapy leads to ongoing chronic inflammation through the associated cell destruction and immune activation. Our bodies regulate both these processes via the adrenal pathways, therefore chemotherapy patients' adrenal hormones are often out of balance. This can result in being overstimulated and unable to sleep, which in turn

affects the normal circadian rhythm making people feel wired and tired. In some cases, since the adrenal hormones quell inflammation, in the long run the constant demand leads to them dropping in level, resulting in fatigue, low energy and continued inflammation. Over time sleep can then become increasingly fragmented and of poor quality, which affects recovery. Phase three patients uniformly need assistance with these issues.

My goal during chemotherapy was to support qi and blood and help the patient sustain treatment. With the end of chemotherapy treatment, the goal shifts to helping the patient to recover. In my experience this is a slow process: phase three and four can take altogether between 12 to 18 months of post-chemotherapy support before strength and consistent levels of energy are attained. Restorative sleep is necessary for recovery, and often requires multiple sleep supplements. It is also essential to instruct patients on sleep hygiene, so that unhelpful habits can be corrected. These are the principles I ask my patients to put into practice:

- Be in bed before midnight. This allows the hypothalamic sleep-wake cycle to maintain its rhythm, with adrenals powering down for the night and being ready the next morning for waking. When awake after midnight, the adrenal function starts turning on for the next day and the window for lowering cortisol and allowing the body recovery time is lost.
- Keep the bed just for sleeping and do not read or watch television in bed. This helps the brain associate bed and sleep.
- If you are awake at night for more than 30 minutes, get up and sit in a chair; listen to soft music or meditate until tired, then go back to bed.
- Avoid stimulation a couple of hours before bed. This includes over-stimulating television shows and computers. Use orange lights for night reading and computer work,²¹ and keep the bedroom as dark as possible.

I start treatment with a combination of traditional herbal formulas and sleep supplements, both listed below.

Wen Dan tang (Warm Gall Bladder Decoction) is used for insomnia with damp-phlegm in the Stomach. Typically, this is a nervous person who is anxious about going to sleep and commonly suffers from night sweats and loss of appetite. The abdominal conformation shows epigastric tightness and water stagnation in the stomach.

Gui Pi Tang (Restore the Spleen Decoction) is used for insomnia against a back-ground of Spleen and Stomach deficiency, it helps nourish the Heart and spirit and improve sleep. The presentation involves anaemia, loss of appetite, weak abdomen and cardiac pulsation felt on the ribcage under the left breast. The pulse is thin and submerged.

Tian Wang Bu Xin Dan (Emperor of Heaven's Special Pill to Tonify the Heart) is used to nourish yin and blood and calm the spirit. It is indicated for people with anaemia, emotional lability, palpitations, night sweats and a rapid pulse.

I pair herbal formulas with a choice of supplements that can improve sleep quality and duration, and ask patients to take them both about 30 minutes prior to bedtime. Melatonin is a key component for circadian rhythm regulation. However, its benefits in supportive cancer care go beyond sleep support to include increased natural killer cells, inhibition of cancer growth and apoptosis.²² I start with a dosage of one to three milligrams, and increase it gradually. In cancer it is commonly used at dosages as high as 15 to 20 milligrams, which have not been shown to reduce its production in the pineal gland.²³ I often prescribe the highest dosage, unless there is dizziness or dream-disturbed sleep. I am cautious with melatonin in lymphoma, leukaemia and myeloma, and offer it only short-term while patients are receiving chemotherapy, even though the reason to exercise caution is only theoretical.²⁴ Another effect attributed to melatonin is the lowering of corticotropin-releasing factor, which reduces cortisol, so care must also be taken with asthma in autoimmune patients and those on steroids.²⁵

Additionally, I prescribe supplements that are known to calm the excitatory nervous system in the brain, which can include L-theanine, inositol, GABA (gamma-amino butyric acid), glycine and magnesium. These act to counterbalance the excitatory neurotransmitter glutamate. I add them individually or in combination. There are no specific protocols for deciding which to add; I simply prescribe them individually, for several days, and see whether or not sleep improves. I usually try to go up to higher dosages to observe the effect before adding another in low dose.

Conventional medicine offers a variety of medications for sleep disturbances. Oncologists might prescribe sedative hypnotics, which reduce anxiety and help sleep, antidepressants or anti-anxiety drugs. I first try natural substances, and I only resort to small doses of trazadone (25-50 milligrams) in the rare cases in which they are not sufficient. This is a sedating and anti-anxiety antidepressant that does not disrupt normal REM (rapid eye movement) sleep, unlike other sleep medications.²⁶ The oncologists I work with are comfortable with me prescribing for my own patients, however I always discuss with them what is best for the patient.

Exercise

Regular physical activity is a key factor in recovery and has been shown to reduce the risk of recurrence.²⁷ At this stage, patients should start retraining their body and strive for committed regular activities, whether it is walking daily, doing bicep curls with a soup can, yoga,

Treatment involves adapting to the constant changes in the patient's symptom presentation and is therefore not linear.

tai chi or going to the gym. As the advertisement for Nike so aptly states, patients should 'Just do it'. The aim is the 'big three': flexibility, strength and endurance. Physical therapists who specialise in rehabilitation can help patients to start moving again by mobilising damaged tissues, reducing pain and releasing muscle contractures. Plans need to be individualised so that each person can start from where they are at and continue to see progress.

Diet in phases three and four

While during chemotherapy treatment I keep dietary advice to a minimum and encourage patients to eat what they find palatable, once treatment has been judged successful, I make specific dietary recommendations to support recovery and prevention. Although there are numerous approaches to diet and nutrition, there seems to be consensus among many practitioners regarding the effects of certain food types on cancer patients.

Saturated fats are known to cause insulin resistance and increase insulin levels, along with the production of insulin-like growth factor 1 (IGF-1).^{28, 29} These factors are linked to inhibition of apoptosis, cellular proliferation and the growth of cancer. Omega 3s are polyunsaturated fats known to suppress the HER2 genes, an oncogene that when over-expressed becomes an important factor in the development and progression of certain types of aggressive breast cancers.³⁰ Flaxseed and walnut oil are natural sources of omega 3. Omega 9, a monounsaturated fatty acid that also has cancer-preventive properties, is found in olive and canola oil, almonds, Brazil nuts and avocado.

In Western fast food diets, there is a tendency to eat omega 6 oils in excess in the form of hydrogenated oils or PUFAs (polyunsaturated fatty acids). A high ratio of omega 6 to omega 3 (greater than 2-3:1) can promote significant inflammation and contribute to the pathogenesis of autoimmune diseases and cancer.³¹ Moreover, it activates the RAS-p21 protein, which can spark a chain reaction resulting in increased cell growth and replication.³² Fried foods, ice cream, sunflower and safflower oils are sources of omega 6 and should be avoided. Beef, pork, chicken and lamb are also high in omega 6 and should be avoided or at least reduced. Organic eggs can be consumed in small amounts. I also recommend eliminating caffeine, sodas and alcohol, potato crisps, pastries and cookies, and all processed foods. In the United States, there is a consensus that dairy products should be reduced or eliminated because of their high saturated fats content; moreover, if from non-organic farming, they also contain high levels of

hormones and antibiotics.

In the early recovery period - until the appetite, sense of taste and smell have recovered, and digestive symptoms have resolved - the patient should opt for simple and easily digestible meals. As digestion continues to improve, the diet can become higher in protein from nuts, vegetable protein powders, fresh water fish, duck and turkey,³³ which will help refurbish depleted resources. On average, the body needs 0.5 to 1.0 gram of protein per kilogram of body weight per day. Proteins are necessary to produce enzyme catalysts, repair tissue damage, generate muscle fibres and collagen, transport hormones, produce antibodies and assist in repairing injured peripheral nerves. However, to gain weight in the presence of chronic inflammation and debility, the daily protein requirement rises to 1.5 grams or more per kilogram of body weight.³⁴ During treatment, the body sources protein precursors from its own reserves in the muscles, resulting in sarcopenia or loss of muscle mass. Sufficient weight and muscle mass can be gained more readily after the conclusion of chemotherapy and adequate protein intake is crucial in recovery. I often recommend the same medical protein drinks as for phase one and two, sometimes with added branched-chain amino acids and MCT (medium chain triglycerides). I recommend snacks such as protein bars or nuts as a way to further supplement protein intake. Diet should consist of several portions of organic fruits and vegetables accompanied by whole grains. Protein intake should be high, especially from plant sources, and intake of animal fat should be low.

Letting go of old dietary habits and creating new ones requires commitment in terms of time and money, as well as motivation to shop and cook, and it is only possible when patients truly desire a healthier lifestyle.

Acupuncture in phase three

Acupuncture has been ongoing throughout the course of treatment. Now, too, it is important to carefully determine how much stimulation the patient can tolerate at a given acupuncture session. I base my assessment of the patient's strength on the examinations of the abdomen and pulse. When the patient's strength allows it, I add Extraordinary Vessel treatments to support the yuan qi and the Divergent Channels to harmonise yin and yang and the zangfu organs. I proceed slowly, as over-stimulation can worsen fatigue. However, in young strong patients, it is possible to treat the Extraordinary Vessels right from the beginning.

Phase four

With the completion of conventional treatment, and the assumed or achieved remission, the oncologist's focus becomes vigilant watchfulness for any early recurrence or persistent adverse side-effects from treatment. This marks the beginning of phase four. At this stage, lower physical stamina, persistent weight loss, cognitive impairment and

the sense of having aged are common. With the return to daily activities, the requirement of greater energy output reveals the deeper effects of chemotherapy. The patient's reserves have been depleted; it is at this time that signs and symptoms of Kidney deficiency become apparent.

The goal of phase four is to support the patient with Kidney tonics, although qi and blood tonics are often still needed, especially at the beginning. Concurrently, other supportive formulas may still be needed to address possible persistent side effects of treatment, such as low blood counts, chronic pain, and even mood and sleep issues. My experience suggests that it takes at least 12 months to optimise recovery and rejuvenation.

Herbal medicine in phase four

There are two abdominal conformations for Kidney patterns of yin deficiency, which have been discussed in the section on Kampo. The choice of a specific formula is based on symptoms. *Liu Wei Di Huang Wan* and *Ba Wei Di Huang Wan* are often my choice for Kidney tonification post-chemotherapy.³⁵ Other options include *Zuo Gui Wan* (Restore the Left [Kidney] Pill), which is used to supplement Liver and Kidney yin and tonify blood in those presenting with lumbar pain, dizziness, fatigue and tinnitus; *You Gui Wan* (Restore the Right [Kidney] Pill) is used for Kidney yang deficiency with cold extremities, lack of vitality, and knee and back pain. *Zuo Gui Wan* and *You Gui Wan* can be combined together, based on symptoms.

After several months, when the patient shows signs of recovery, I start following the protocols I learned from Dr Shima, which I have found very effective. This style of treatment alternates two types of formulas: those aimed at preventing cancer reoccurrence, and those for tonification. Each phase lasts for three months, and one entire cycle is six months; cycles are repeated until a patient is considered cured.³⁶

The formulas in the first part of the cycle are historical formulas that were used for cancer before the development of modern biomedical treatments. In Dr Shima's approach, they are no longer intended to attempt to 'cure' cancer, but are part of an individualised programme to help cancer patients to recover. They focus on moving qi stagnation and blood stasis, clearing heat and toxicity, and resolving phlegm. Since these formulas contain dispersing and moving herbs, they can be depleting and need to be alternated with tonics.

Case summary

I have cared for Ms E., currently 43 years old, for several years. I was her primary physician in 2014 when she discovered a lump in her left breast, and I sent her for a mammogram. Her most recent routine clinical breast exam, in the previous year, was normal, as was her mammogram several months earlier. Based

on the radiologist's recommendation following the mammogram, an ultrasound and ultimately a needle biopsy were performed. She was diagnosed with invasive breast cancer and was referred for surgery and oncology evaluation. The breast biopsy revealed an oestrogen-receptor-negative, progesterone-receptor-negative and HER2-positive tumour; lymph node sampling revealed two positive axillary nodes.

Hormone-receptor positive cancers grow in response to hormone stimulation. Therapy typically targets receptors to reduce stimulation of the cancer. In Ms E.'s case, therapy could only target the HER-2 hormone receptor, as the cancer did not have oestrogen receptors. Oestrogen-negative-HER-2 positive cancers can be particularly aggressive, and have higher chances of early relapse; Ms E. already had positive lymph nodes. She was given four different chemotherapy agents for six cycles during a three-month period, followed by unilateral mastectomy.³⁷ Two drugs were HER-2 receptor blockers; the other two aimed at destroying cancer cells.

After the mastectomy, Ms E. continued chemotherapy for six more months, followed by chest wall radiation. During this time she set in place her own personalised programme of care. She fine-tuned her already excellent diet, practised yoga and sought therapies for physical recovery, including physical therapy and light gym workout along with counselling to help mental and emotional balance. Months later she had elective contralateral mastectomy³⁸ followed by bilateral reconstruction.

Ms E. had a strong constitution, which allowed me to immediately apply more intensive acupuncture treatment, including the use of the Extraordinary Vessels. I also prescribed herbs and specific supplements to prevent the development of neuropathy and cardiac damage.³⁹ The intensity of the six initial chemotherapy cycles affected her digestion and caused diarrhoea, chills and abdominal pain, which lasted two to three days each time. I prescribed *Li Zhong Tang* as it works quickly in acute diarrhoea of this kind. My empirical points for the diarrhoea included: Tianshu ST-25, Zusanli ST-36, Pishu BL-20 and Neiting ST-44, Guanyuan REN-4 or Zhongwan REN-12, Zhangmen LIV-13 and Taibai SP-3. Points were chosen from this group based on palpation. The pulses of the Extraordinary Vessels indicated Ren Mai weakness. A regime of supplements aimed at preventing some of the more serious side effects the chemotherapy agents exposed her to: peripheral neuropathy (taxanes- and platinum-containing drugs) and cardiac toxicity (trastuzumab and taxanes). For neuropathy, I prescribed acetyl-L-carnitine, one gram twice a day; glutamine, three grams three times daily; N-acetyl-cysteine (NAC) 600 grams twice daily; pyrroloquinoline quinone (PQQ) 20 milligrams a day; and alpha-lipoic acid, 300-600 milligrams twice daily.⁴⁰ To prevent cardiac toxicity I also added tocotrienols, 125 milligrams once or twice a day; coenzyme Q10, 200

After she recovered from her reconstructive surgery, we began weekly acupuncture for scar healing, along with treatment for her Dai Mai imbalance

milligrams a day; taurine, 2 grams a day, and magnesium glycinate or malate, 120-500 milligrams a day. After chemotherapy was concluded, all these supplements were continued for several weeks on the lower dosages.⁴¹

During the months of treatment, essentially without a break, I used small doses of *Shi Quan Da Bu Tang*, one gram three times daily. During her chest wall irradiation, calendula and lithospermum ointment, mixed together, were used to moisturise her skin and reduce inflammation. This was combined with *Mai Men Dong* (*Ophiopogonis Radix*), taken as a single herb tea, for throat and oesophageal irritation and discomfort.

After she recovered from her reconstructive surgery, we began weekly acupuncture for scar healing, along with treatment for her Dai Mai imbalance (Zulinqi GB-41 and Waiguan SJ-5). This was diagnosed on the basis of her Extraordinary Vessel pulses, which remained consistent for months, revealing a persistent pattern. I interpreted it as Liver and Gall Bladder imbalance from the medications. In terms of herbal treatment, digestive herbs were continued and Kidney tonics were started. It is common practice in the Japanese approach to base acupuncture treatment on pulse patterns, and herbal formulas on abdominal conformation and symptoms. However, correlations between the abdominal conformation, herbs and the pulse are common. Based on the development of severe menopausal symptoms (hot flashes and sweating) the Kidney herbs were changed to *Zhi Bai Ba Wei Wan* (*Anemarrhena*, *Phellodendron* and *Rehmannia* Pill), commonly used for Kidney yin deficiency accompanied by empty heat. Concurrently, *Xiao Yao San* (*Rambling Powder*) was used for Liver qi stagnation and blood deficiency, diagnosed on the basis of subcostal tightness and lower lateral abdominal weakness. After three months, I stopped both formulas and began the three-month phase of cancer prevention to be alternated with tonic formulas. Based on *Treating Cancer with Chinese Herbs* by Hong-Yen Hsu,⁴² I then used *Zi Gen Mu Li Tang* (*Lithospermum* and *Oyster Shell* Combination) to detoxify blood, soften hardness and heal malignant sores in breast cancer, plus *Shi Liu Wei Liu Qi Yin* (*Sixteen-Ingredient Drink for Qi Flow*), for qi and blood stagnation causing tumours and malignant sores.⁴³ At this point, her husband was transferred and Ms E. relocated across the country and stopped being my patient. She continued taking small doses of *Zhi Bai Ba Wei Wan* (one 500 milligrams capsules, three times daily) as when she stopped, the hot flashes became intolerable. When she left, I provided her with a three-month supply

of the formulas to prevent cancer mentioned above, and made myself available to discuss the case with her new practitioner. Currently, eighteen months after completion of her treatments, she is cancer free.

Conclusions

This article is meant to give a broad-stroke description of my approach to supportive care for cancer patients with Chinese medicine. Many topics the article touches upon could be the subject of individual articles. What I offered here are basic guidelines and suggestions meant to stimulate self-directed study. While cancer patients pose challenging problems, the level of engagement they require has proven to be a very rewarding aspect of my career. I hope that having read this article, practitioners will feel more comfortable helping their patients navigate this difficult journey.

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References

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- 3 All drugs in this category can be recognised by the presence of the suffix 'mab' in their name.
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- 11 Typically using *Shi Quan Da Bu Tang* (All-Inclusive Great Tonifying Decoction). See below for details.
- 12 In the Kampo tradition, formulas are most often associated with an abdominal pattern, which is called 'abdominal conformation'; this, combined with the

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- 13 Oriental Medical Doctor. In the late 1980s Dr Shima invited Dr Mori to teach in the United States. It was Dr Mori who introduced Shonishin – a non-insertional form of acupuncture particularly used in paediatric treatment – to American practitioners.
 - 14 To check for fluids in the upper abdomen, lightly tap the stomach area with the side of your hand. If you hear the sound of water splashing, this indicates fluid accumulation in the stomach. Alternatively their presence is revealed when you tap with one hand while resting your other hand close by and parallel to the first one; the tapping induces a fluid wave that hits your 'listening' hand.
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