

BUILDING OJAS:

The road back to health from Chemotherapy

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Introduction

Cancer is characterized by the spread of abnormal cells in the body. Mutated cell growth is often uncontrollable and can cause death in the individual by eventually compromising the body's vital functions. The existence of cancer and its manifestations go back thousands of years as described in the classical texts of Ayurveda. While modern research has linked numerous causes to the proliferation of cancer cells within the body, malignant cancer cells are produced in all bodies. The general difference between a detectable cancer and that which does not develop further is the body's immune system and its many functions. From an ayurvedic perspective, *Ojas*, a Vedic concept that contains the body's defense against such pathogens, is disempowered at a time when cancer cells begin to populate. In today's world, the abundant use of chemotherapy to eradicate many cancers can leave the body in a severely weakened state. The success of chemotherapy is often a matter of ridding the body of more malignant cells before too many healthy cells are compromised. When the body has reached this point and the chemotherapy has ceased, the body's immune system, already compromised as evidenced by the high volume of cancer cells, is further impaired. In order for the body to continue to survive, immunity must be restored. In Ayurveda, the practice of restoring immunity is referred to as building Ojas. The cultivation of *Soma*, Rasayana or Rejuvenation therapies, including physical, mental, and spiritual practices must all be employed so that the body can fully recover and defend itself against future assaults.

Cancer and the use of Chemotherapy

Chemotherapy is the use of certain chemicals that are introduced to the body for the purpose of destroying disease. Antineoplastic (anti-cancer) therapy and Cytotoxic (cell-

killing) therapy are specific to treating cancer. ⁱ In the article *Chemotherapy and the war on cancer*, a historical account of the development of chemotherapy explains that during WWII an event causing exposure to mustard gas led to a decrease in white blood cells among those who were in contact with the gas. Continued research in the 1940's led to the experimental treatment of non-hodgkins lymphoma with nitrogen mustard. The mustard gas derivative caused a temporary regression of the mediastinal and lymphatic masses. By the late 1940's, compounds identified as antifolates were the first drugs to induce remission in cases of acute lymphoblastic leukemia. More stabilized versions of these drugs diminished tumors successfully in Breast, ovarian, bladder, and head and neck cancers. Clinical trials continued through the 1950's and 60's as natural and synthetic compounds were combined and tested on tumor cells at various stages. Chemotherapy was considered as constructive adjuvant therapy following the surgical removal of tumors. Although there has been tremendous support for the development of chemotherapy since the early stages of research, there exists a parallel concern around the "Acute and long-term toxicities of chemotherapies, which affects virtually every organ in the body".ⁱⁱ Oncologists have accepted this fact as the price for controlling such a fatal disease. In patients who are treated yearly with chemotherapy, approximately 20% are cured and another 20% experience a significant extension of life.ⁱⁱⁱ The remaining 60% of patients experience minimum benefit from cytostatic treatment and suffer from the effects. Common side effects resulting from the administration of chemotherapy drugs include: Decrease in blood cell counts, hair loss (reversible), confusion, nausea, vomiting, ringing in ears, hearing loss, kidney damage, bladder damage, fertility impairment, lung and heart damage, mouth ulcers, decreased appetite, liver damage, photosensitivity, skin rash, seizures, loss of reflexes, and weakness.^{iv} As several rounds of treatment are often dispensed over a period of time, the patient can develop psychological disturbances in anticipation of subsequent rounds. Although many of these conditions subside once the chemotherapy is over; the long-

term effects force the patients to discontinue treatments and leave the person in a deeply weakened state with low quality of life.^v

Ayurveda and Cancer

Cancer is described in the classical texts as inflammatory or non-inflammatory swelling and described as *Granthi* (minor neoplasm) or *Arbuda* (major neoplasm).^{vi} *Granthi* is the term most commonly used to describe benign tumors and is visible from the surface. *Arbuda* is the term that specifies a malignancy. Other terms from the texts include *Gulma*, which describes any palpable mass in the abdominal area; and *Dwirarbuda*, which refers to the spread of the malignant cells from its origin throughout the body.^{vii} Malignant tumors (*Tridosaja*) are the result of all three doshas deeply out of balance and unable to inhibit tissue damage.^{viii} According to the sushruta samhita, it is the vitiation of all three doshas that ultimately lead to the manifestation of tumors.^{ix} Dr. Marc Halpern explains the evolution of a tumor to be a function of Vata (faulty division of cells) pushing Kapha (tissue growth) and the excess of pitta creates malignancy making it sannipatika in nature .^x Cancer manifests differently in each individual according to their distinct exposure to pathogens and their unique constitutional makeup.^{xi} Not only is the spread of cancer due to the vitiation of the Vata, Pitta and Kapha doshas, but disturbances deeply rooted in the Rakta, Mamsa and Medas dhatus.^{xii}

Ayurveda and Chemotherapy

Visha Dravya is a Sanskrit term that refers to poisonous drugs. Chemotherapeutic agents belong in this classification, as they all possess a hot potency. While working to destroy cancerous cells, they inadvertently destroy healthy cells within the GI tract, mucous membrane, skin, hair root, and other organs. Chemotherapy drugs embody properties that directly oppose the Rasa, Kapha and Ojas in an individual, thereby creating vitiation in the

vata and pitta doshas while depleting the Kapha dosha, leading to the depletion of the rasa and Rakta dhatus and resulting in the depletion of Ojas.^{xiii}

Life after Chemo

When the round(s) of chemotherapy end(s), many of the acute symptoms end too. However there are long-term effects that are now a part of a persons' physical landscape. Common long-term (1 year and beyond) complaints include fatigue, anemia, neuropathy or numbness (due to injured nerves), lymphedema (arm or leg swelling), dry mouth, teeth problems, loss of taste, painful mouth and gums, jaw stiffness or jawbone changes, weight gain, weight loss, trouble swallowing, hormone depletion and lack of libido. Many of these conditions can develop months or years after the treatment has ended.^{xiv} There is also a large psychological component, where the entire paradigm of a healthy life is transformed. Even if the cancer is in remission, a cancer survivor can experience deep fear from the possibility of recurrence and as a result have difficulty making life decisions, such as career path or marriage. Values and goals may be altered, reflecting deeper inquiry into spiritual and existential concerns over death and dying. The psychological path of a cancer patient is constantly changing, with transitions being particularly stressful, such as the "Transition from treatment to long-term follow up."^{xv}

The Heart of Healing: Ojas

"Disease always forces us to confront our attachments. All attachments are temporary and are dissolved by Nature when She feels it is time to broaden our personalities. Disease is always an opportunity to learn from our mistakes, an opportunity that nature provides us out of Her maternal magnanimity. She hopes we will learn enough so we will never be sick. She can even teach us how to overcome deathRejuvenation is the first step in the direction of immortality".^{xvi} -Dr. Robert Svoboda

To understand the ayurvedic concept of Rasayana and its protocols, it is necessary to understand the concept of *Ojas* . It is defined poetically in verse from the Caraka Samhita:

Ojas:

It maintains the living beings by its saturation;

Without ojas no life of creatures exists,

It is the initial essence of embryo and also the essence of the embryo's nourishing material,

It enters into the cardiac cycle first,

If it is destroyed, it leads to destruction of that person,

It is the sustainer

It is located in the heart,

It is the cream of the nutrient fluid in the body,

It is where vital factors are established,

It is the fruit of them or they produce various types of fruits.^{xvii}

In the *Astanga Hridayam*, Ojas is seated in the *hrdaya* (Heart); although it is the essence of all the dhatus. It is what regulates the body and even has a texture(viscous) and color

(reddish yellow). The loss of ojas leads to a loss of life.^{xviii} According to Dr. Robert Svoboda ,

the definition of Ojas is "A hormone -like substance which is derived from Shukra. Ojas

produces the aura, transmits energy from mind to body, and controls immunity."^{xix} Dr. David

Frawley contends that Ojas is the foundation of the development of all other faculties: "The

internalized essence of digested food,water,air, impressions and thought, the basis for

patience, control of the senses and mental endurance."^{xx} Many causes of the loss of Ojas are

listed in the classical text and in the notes given by Professor K.R.Srikantha Murthy, who

references many additional factors from other classical sources including *Abhisanga*

(assault by evil spirits; micro-organisms such as bacteria, virus, etc.) and *Visa*, ingestion of

poisonous substances.^{xxi}Dr. Marc Halpern cites in *The Principles of Ayurvedic Medicine* that

Ojas can be defined as the "force of contentment and stability."^{xxii} Dr. Halpern connects the

condition of low ojas with the presence of cancer in the affected tissue; and as the disease

progresses, for the systemic Ojas to become lower and lower.^{xxiii} In order for long term healing to occur, one's Ojas needs to be rebuilt. The Astanga Hrdayam plainly states that the increase of Ojas creates "Contentment, nourishment of the body and increase of strength".^{xxiv}

An Ayurvedic Solution

"Ayurvedic Herbology reaches its culmination in the science of rejuvenation .Aimed at the renewal of both body and mind, Ayurvedic herbology does not seek simply longevity, but moves towards a life of pure awareness, natural creativity, spontaneous delight." –Dr. David Frawley and Dr. Vasant Lad, *The Yoga of Herbs*

Rasayana, or Rejuvenation therapy, provides multi-dimensional relief to the many residual issues imposed on a person who has undergone chemotherapy. The general effects of rasayana therapy include Vayahsthapana (anti-aging), Balya (restoring power), and Jeevaniya (improving vitality).^{xxv} Rasayana literally means "The path of Rasa." This implies a journey back to health. Dr. Svoboda impresses the importance of the health of the Rasa dhatu, which is the substance by which other dhatus are formed. He continues to describe healthy Rasa as the primary element in creating healthy shukra, where ojas are produced.^{xxvi} Bri Maya Tiwari describes Rasa as "The mother essence of healing."^{xxvii} She continues to define Rasa as the taste we have for all things, not only with our mouths to taste food, but through sensory impressions as well. The path to healing includes all forms of Rasa, and in choosing the appropriate foods and rituals (sadhanas) in one's daily life, one can engage in the inherent intelligence of acting in accord with their surroundings, thereby forging a clear path to health.^{xxviii} Nourishing the Rasa requires the physical consumption of the sweet taste. Made up of the elements water and earth, it is the perfect foil to the hot, sharp qualities of Chemotherapy. Dr. Svoboda defines honey and its origins, pollen , which is referred to as the sperm of plants, as plant shukra, which increases human shukra and thereby nourishing Rasa.^{xxix} In this way honey is a primary food in rasayana therapy. The

Sanskrit term for honey, *Madhu*, appears in numerous classical rejuvenative formulas. One such formula that is very popular is Chyavanprash, a spicy sweet amla based jam consisting of 5 of the 6 tastes(excludes salty). Other foods which provide the sweet taste include Whole Grains, root vegetables, fruits and milk. Foods that have the sweet taste have a cool potency(virya) and a sweet post digestive effect (vipaka). Each dhatu benefits from the sweet taste; Foods that increase the Rasa Dhatu include some dairy products, fruits and oils; Molasses, black grapes, carrots and beets enrich the rakta dhatu; Meat, grains and nuts build mamsa dhatu; Oils, dairy, wheat and nuts replenish the medas dhatu; Bone soups will aid the Asthi dhatu; Ghee, butter and nuts protect the majja dhatu; Milk, ghee, almonds and sesame seeds enliven the shukra dhatu.^{xxx} A balanced amount of sweet taste in accordance with one's constitution will help the recovering patient to rebuild healthy tissue. It is also essential to eat seasonally and locally. In Maya Tiwari's *Living Ahimsa Diet*, she makes a strong case for the effectiveness of honoring the cycles of nature. The presence of foods as they appear in order out of the ground is not coincidence; but rather an ancient agreement between all living things to feed and be fed at the appropriate time. Since us as humans are created from the same elements that have created the seasons, we share this inherent rhythm with nature. "Only the rhythms of the seasons have the power to fully restore our vital tissues and their innate memories that guide their form and function to perfect health".^{xxxi} Another important component of restoring health to a body ravaged by cancer and its treatments are the plant-based medicines utilized in Rasayana therapy. In the article published by *AYU :An international Quarterly Journal of Research in Ayurveda*, A trial involving a total of 36 cancer patients were divided into two control groups where one group received chemotherapy and radiotherapy and another group received the same cancer treatments along with an ayurvedic formulation *Rasayana Avaleha*. The results showed a clear indication that the formula helped to protect patients from the adverse effects while going through treatment.^{xxxii} The herbs used in this formula are ones that are used in many classical rejuvenative formulas and continue to be the subject of many clinical studies. The formula contains Amalaki, Ashwaganda, Gaduchi, Yastimadhu, Jivanti, Tulasi and Pippali.

Amalaki (*Embllica Officinialis*) or Dhatri (the nurse) is one of the strongest rejuvenatives in ayurveda. It is a premium source of vitamin C, rebuilds and retains new tissues and increases red blood cell count, and is also a major component in the rejuvenative Chyavanprash. Ashwaganda (*Withania Somnifera*) is considered among one of the best rejuvenative herbs for the muscles, marrow, semen and vata constitution, especially in cases where tissues are debilitated as a result of chronic disease.^{xxxiii} Guduchi (*Tinospora Cordifolia*) is a potent anti-inflammatory and excellent tonic for the immune system.^{xxxiv} Yashtimadhu (*Glycyrrhiza glabra*) otherwise known as Licorice, is an effective expectorant, demulcent, emetic, Kapha-cleansing agent, laxative, restorative, rejuvenative agent.^{xxxv}, Jivanti (*Leptadina reticulate*) is a natural source of Quercetin.^{xxxvi} Tulasi (*Ocimum sanctum*) or Holy Basil, is the most sacred plant in India, as it opens the heart and mind, clears the aura and strengthens immunity.^{xxxvii} Pippali (*piper Longum*), also known as long pepper is a stimulant, expectorant and revives weakened organic functions.^{xxxviii} Flavonoids as potent antioxidants are vital for protection against disease and are present in Guduchi, Ashwaganda, Amalaki, Pippali, and Tulasi.^{xxxix} Many of these herbs have a sweet rasa, cool virya and sweet vipaka, which aid in nourishing Kapha dosha, depleted by cytotoxic chemicals. As a result these herbs serve to offset the cancer anorexia-cahexia syndrome, a source of malnutrition in cancer patients. Guduchi, Ashwaganda and Jivanti are also known adaptogens, correcting imbalances without negative side-effects.^{xl} To combat the psychological conditions that occur post-treatment, Dr. David Frawley, in his book *Ayurveda and the Mind*, highlights key rejuvenating herbs for the mind. Calamus (*acorus calamus*) is a rejuvenative for the brain and nervous system, and used by the ancient Vedic seers. Calamus is currently restricted for internal use by the FDA.^{xli} Gotu Kola (*Centella asiatica*), is a rejuvenative that increases intelligence and memory, as well as fortifies the immune system;^{xlii} And Shanka pushpi (*Canscora desuccata*).^{xliii} Brahmi, or Mandukaparni, (*Hydrocotyle asiatica*, Umbellifera, *Bacopa monniera*, Scrophulariaceae) is considered one of the most important nervine herbs in Ayurveda. In *The Yoga of Herbs* by Drs. David Frawley

and Vasant Lad, Brahmi is a great rejuvenative when combined with ghee, as it revitalizes brain cells and purifies the nervous system.^{xliv} The Caraka Samhita has many Rasayana formulas containing the aforementioned herbs. One such formula promises that if used every day for three years a person will live a vital 100 years disease-free, will be physically strong and solid and untouchable by poison. It begins with the herbs haritaki, amalaka, bibhitaka, haridra, salaparni, bala, vidanga, guduchi, sunthi, madhuka, pippali and katphala cooked into ghee; then amalaka powder (which has been impregnated 100 times with amalaka juice) mixed with $\frac{1}{4}$ quantity of iron powder(iron Bhasma) , combined with the herbal ghee mixture and some extra honey and sugar. 10gm of the formulation is to be taken every morning and a diet of Sali and swastika rice with ghee along with green gram or milk taken at night.^{xlv} If required, rasayana herbs can add bulk and increase tissue where needed, but more importantly these substances will add quality tissue to the body, thereby promoting longevity and the quality of life.^{xlvi}

Yoga

According to David Frawley in his book "Ayurveda and the Mind", Dr. Frawley defines Yoga as a means to gain awareness around the "original impetus of life". It is the human experience to move towards integration, consciously or unconsciously, with universal wholeness and peace. This greater system of yoga can reverse psychological distress by reuniting the mind back into pure consciousness, which "resides in perfect peace."^{xlvi} Where the protocols of Ayurveda heal the body in a physical and subtle way, it also prepares the body for Yoga, an inner pathway that ultimately merges the mind which the "Cyclical nature of the cosmos".^{xlviii} Embodied in the classical eight limbs of yoga lie a treasure of healing practices for the cancer survivor. The use of asana, pranayama, mantra and meditation are invaluable tools to aid in the whole Ayurvedic healing process. Asana includes all postures, either seated or moving, that when done correctly with the right intention, can open up and loosen stagnant energies that may have played a part in causing illness.^{xlix} Pranayama is a

method that develops and expands the energy of the life-force (prana) beyond its ordinary limitationsⁱ. Conclusions to a pilot study showed that pranayama may improve sleep disturbance, anxiety and other chemotherapy associated symptoms.ⁱⁱ According to Dr. David Frawley, Mantra is the most important healing sound therapy in Ayurveda. The word mantra is a word that combines *Trayati*, that which saves, and *Manas*, the mind. He explains that mantra can heal emotional patterns by re-patterning them where counseling or analysis cannot. The more repetition of the mantra, the more effective it is for the individual.ⁱⁱⁱ Dr. Vasant Lad instructs that mantra should first be spoken aloud so that the sound is heard by the heart. Ultimately the vibrations of the mantra infiltrate the heart and no external sound is necessary, allowing the deepest resonance within, creating a powerful healing energy. Each person chooses their own mantra; as it is as unique as one's own constitution.^{liii}

Meditation is another powerful self-healing tool. A controlled study of ninety cancer patients showed a significant decrease in those who did mindfulness meditation for 7 weeks. 31% had fewer symptoms of stress and 65% had fewer episodes of mood disturbance than those who did not meditate. ^{liv} According to the American Cancer society, Some studies have also suggested that more meditation improves the chance of a positive outcome. ^{lv}Deepak Chopra describes the effectiveness of meditation and healing as follows: " *Rather than considering it a relaxation response, consider it as a heightened awareness or a restful alertness response. We meditate to experience an inner wakefulness, an inner knowingness that gives us a sense of control over the processes inside our body, as well as over our life experiences. In the silence of meditation there is alertness, flexibility, creativity, sensitivity, freshness, aliveness and renewal. There is pure consciousness, no contamination of experiences in the past, by memories or by cravings---awareness remains pure, full of energy, full of clarity.*"^{lvi} Additional holistic therapies that will help an individual back to health and strengthen ojas include aromatherapy and Chromotherapy . Aromatherapy enlists the sense of smell to take in the environment . Certain plants provide energetics through their oils that are extracted from the various parts, depending on the plant. If the

scent is in accordance with one's nature, the effects can be extremely beneficial to the mind, body and consciousness.^{lvii} Chromotherapy, or the use of color to improve overall health, is a broad field that covers everything from decorating the home in a color scheme that is according to one's prakriti to using colored lights to treat different parts of the body. Understanding the elemental quality of color and how it relates to nature is another way of bringing a sense of harmony to one's environment, setting the stage for effective healing. ^{lviii}

Soma and the quality of Life

For a cancer survivor, mortality is no longer a distant concept. Many survivors do not consider themselves healthy; There is always a chance of recurrence of the disease. However, many survivors find that their life takes on new meaning after cancer. Life and living take on greater value. This attitude often leads the survivor to a more thoughtful position on spirituality.^{lix} As with any crisis, a space is created where new paradigms are forged in seeking the greater meaning to life. According to David Frawley in his book *Soma in yoga and ayurveda*, greater longevity is only a benefit if we connect it to meaning, consciousness and creativity, and doing so requires "An ability to connect with the immortal essence of our being."^{lx} This is only one aspect of *Soma*. Dr. Frawley interprets, through his lifelong study of the Vedic texts, a vast concept that encompasses physical and non-physical, inner and outer manifestations of lasting bliss, resulting in the infinite quest for immortality. *Soma*, both material and otherwise, is rooted in the field of rejuvenation. Through traditional ayurveda therapies, diet and lifestyle, internal soma will unfold, revealing the potential for "immortality of spirit". In exploring this inner immortality, the physical body is no longer the object of greater longevity, but rather a desire to achieve a "Greater existence in consciousness itself" provides a true prolonged existence. ^{lxi}

Conclusion

In Maya Tiwari's *The path of Practice*, an autobiographical account of her victory over incurable ovarian cancer, she is summoned into healing through spiritual reckoning, after

being told that nothing else could be done to save her. Her journey back to perfect health is a testament to the value of the wisdom of Ayurveda and its protocols. Along with her devotion to her daily practices(sadhanas), Tiwari simultaneously engaged deeply into an agreement with the sea of souls before her; And to connect to the supreme consciousness that provides an everlasting awareness, or pure love.^{lxii} For the cancer survivor, it is a long road back to health. With the use of proper diet, herbs, sensory therapies and lifestyle choices, Ojas can be *strengthened*. However, if the person continues to explore the relationship between their own receptivity to the healing practices and the healing practices themselves, and they make their journey about this, with an open mind and an open heart... Ojas can be *restored*.

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