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Is an Integrative Cancer Therapy Concept (ICTC) the answer to improve the present situation in cancer care?

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Introduction

The demand for integrative oncology is on the upswing as both patients and doctors grow impatient with the failed war on cancer, internationally. More and more physicians move away from a one-size-fits-all kind of treatment to an integrated, patient-centered approach as we practice it at St. George Hospital, since more than twenty years.
Cancer is a multibillion Euro market that is growing fast and companies make a lot of money on something that doesn't work that well. Metastases are the major cause of death in cancer. Yet from 1972 to 2004, only 0.5% of the official Multi-Center studies focused primarily on metastasis.

Metastases (the spread of cancer from one spot to another) are a manifestation of treatment failure. The first treatment, after the diagnosis, was not effective enough to keep the cancer under control, so it came back. Today, the survival rate for metastatic cancer is about the same as in the 1970s.

Integrative oncology does not mean standard doses of chemo and radiation plus some vitamins, minerals, trace elements, bioactive substances and acupuncture treatment or neural therapy.
Cancer is a very complex disease and several cancer controlling systems have fallen ill. That is when the cancer establishment tells you to fight cancer and you march out for one of the conventional treatment modalities and attack the cancer with surgery, chemo, and radiation - weapons of mass destruction. But they weaken for instance an already debilitated immune system. The majority of the cancer drugs are not taken up by the cancer cells alone but also by the healthy cells, and organs like liver, nerves, kidney and blood components get damaged in the process. Good cells die along with the bad ones. We know that surgeries can cause metastases in the long run, once chemo and radiation have killed the P53 tumor-suppressor gene. Indeed, cancer usually returns between 6 and 11 years, which is why the statistics measure only 5-year survival rates.

When the initial treatment produces clear cancer markers, the patient is sent home and told to hope for the best. The cancer is declared "gone," yet a very fragile immune system and organs are left without any advice for the patient what to do to get it repaired. Too often the body flounders and the cancer returns – harder to kill than before and easier to metastasize. Therefore, the soil on which cancer could grow has to be turned around, that means we have to treat the causes. Conventional oncology is focused on the cancer and not so much on the carrier of the cancer - the patient.

It is becoming clear that we therefore are losing "the war on cancer", in great parts because the current paradigm is too focused on bombarding cancer cells and cancer tissue rather than healing a depleted body. It is accepted for instance, that cancer is a failure of the immune system. Rudolph Virchow in 1865 said: „Tumors are wounds that do not heal. Every cancer medication should improve wound healing."

Cancer is a very active tissue, it mutates quiet frequently and it is always tough for us to get adjusted to this. That is why we really need to support the immune system. The immune system, under normal conditions, kills daily many cancer cells. A tumor is partly you but not completely you, so we need to include the body's own immune system in the treatment. It is the only system in our body that can differentiate between self and non-self. Even if with conventional therapy, we could kill every single tumor cell but we would not support the immune system, then the cancer would, very likely, come back. The immune system must be supported to become stronger

than it was before the cancer was diagnosed. The intact immune system is potentially the best fighter against metastases. Yet conventional therapy weakens the immune system and almost never repairs or supports it. Most patients are not precisely informed about the immediate and long term toxicity of chemotherapy or radiation therapy. In many cancer patients we observe a shift in the Th1 to Th2 ratio with a Th2 dominance, which is very unfavourable. Such cases need support, which one we will explain later. Cancer patient are prone to infections and silent inflammation, which we should recognize and treat. Another aspect, often overlooked in conventional oncology are the environmental toxins. Cancer is associated with a high intake of such toxins. [1, 2] We have more than 80,000 chemicals in our environment, but only about 15% have been tested for safety. Chemicals damage several systems of the body, including the immune stem. Over time these toxins can damage the DNA, so that a cell turns into a cancer cell. Pesticides, for instance, damage the mitochondria. We find pesticides and heavy metals in almost all our patients. It is clear that if we want that a cancer patient gets well again, then, we have to detoxify them with chelation and other effective modalities. This is for us an integral part of our cancer strategy. We don't consider the job done when the cancer cells are killed; we pay attention to the inner terrain during treatment and, most importantly in terms of preventing cancer's return. **After the initial treatment is over,** we teach our patients how to boost their inner terrain, longterm, **to stabilize remission.**

The therapy itself is quite complex, but basically involves three components: **diet,** aggressive **supplementation** with nutrients and pancreas product (containing naturally occurring enzymes), and **detoxification**. The protocols are individualized and each patient receives a diet designed for his or her specific needs. The diets are quite variable, ranging from a pure vegetarian program to a more lacto-vegetarian diet, which also could include, in selected cases, a small amount of fish and meat. The supplement regimens are also individualized, and powerful. The supplement regimens include a range of vitamins, minerals, trace elements, anti-oxidants and animal glandular products, prescribed according to each patient's particular needs and cancer type. The use of nutritional supplements for cancer patients is vastly misunderstood in conventional oncology. Most of the oncologists I know have little or no idea about it. And since they don’t know the details, they tell patients not to use it, because they contain antioxidants and since radiation and chemotherapy are pro-oxidant, the nutritional supplements could interfere with the activity of these pro-oxidant treatments.

Before trying to answer the question as to the value of nutritional supplements while undergoing conventional cancer treatment, it might be helpful to discuss the similarities and differences between conventional treatment and nutritional supplements. An ideal chemotherapeutic agent would be one that is highly selective in its action by promoting the destruction of cancer cells while not harming, but rather nurturing normal cells. Unfortunately, conventional therapy does not do this. Radiation, chemotherapy, antihormonal treatments, and even the targeted monoclonal antibody treatments generally are harmful to normal cells; hence the adverse side effects observed during their administration. We achieve this selectivity with insulin potentiation and hyperthermia. With this we damage, respectively kill cancer tissue, but don’t harm healthy tissue, especially the immune system. In this phase it is extremely important to support the immune system, so it can do all the repairs necessary. Nutritional supplements have different effects on cancer cells than on normal cells. They are harmful to cancer cells but nurture normal cells. These nutrients do not, we believe, have a direct anti-cancer effect, but instead serve to improve overall metabolic function, balancing the hormones and supporting the immune system. In addition to these supplements, every cancer patient has to take large amounts of proteolytic enzymes (Bromelain, Papain) and pancreas enzymes (Trypsin, Chemotrypsin) in capsule form, which we believe provides an additional anti-cancer effect. During the development of cancer a series of pro-cancer events occur, natural substances can interfere with these processes without harming normal cell. These events are: (1) gene mutation genetic instability; (2) gene expression (switching on and off); (3) abnormal signal transduction; (4) abnormal cell communication; (5) new vessel formation angiogenesis; (6) invasion into tissues; (7) and other organs; (8) immune

suppression and other forms of immune evasion. There is a long list of literature available how these substances can affect several steps of this process. For example, curcumin (derived from turmeric) inhibit; PTK, PKC, NFkB, and PGE2 synthesis which play a role in inflammation and cancer, inhibiting invasive enzymes, while stimulating or supporting the immune system. EPA (from fish oil) inhibits PKC and PGE2 synthesis, stimulates or supports the immune system and inhibits invasive enzymes. Vitamin D3 (1,25 dihydroxy D) has 9 possible anticancer effects, melatonin even 15, vitamin A and boswellia have15. These compounds can be compared with chemotherapy drugs, they are 30 times less potent in vitro and about 21 times less toxic than chemotherapy drugs. Each substance acts during several steps of the malignant process. They act synergistically and are used most effective in combination with hyperthermia and as maintenance when the cancer is gone or under control. In combination with our specific cancer destructing methods like Insulin Potentiated Chemotherapy (IPT) and hyperthermia we have to support the patient to improve his repair mechanisms and his immune system. Another important component of all phases in our integrative cancer therapy concept is **detoxification**.

During our therapy, we found that as patients repair and rebuild their system, large amounts of metabolic wastes and stored toxins are released. As a result, patients routinely develop a variety of symptoms, most commonly described as "flu-like," such as low grade fevers, muscle aches and pains, even rashes. Together with hyperthermia and low dose Insulin Potentiated Chemotherapy we can cause tumor lysis, which is responsible for these symptoms. Therefore, detoxification is during this phase very important. Detoxification is carried out with a variety of different methods; like chelation, alkalinization with Bicarbonate or coffee enemas to clean the bowels and support the liver. Coffee enemas enhance liver function and in turn, the processing and excretion of metabolic wastes. The coffee enemas are done daily, and patients, most commonly, report symptomatic relief. Coffee enemas have been discussed in the orthodox medical literature. The rectal instillation of fluids will stimulate gallbladder contraction and emptying.[21]

The list of such efforts to improve the health in our cancer patients includes teaching our patients

- how to make permanent changes in their diet
- how to make ongoing use of chelation, colonics, coffee enemas and other detoxing tools
- how to get the hormones rebalanced
- how to get heavy metals and root canals out of the mouth

and learning how to coop with emotional and psychological problems, which may be contributing to a depressed immune system.

Cancer does not appear suddenly; there is more to this than normal cells becoming abnormal. There are several severe underlying diseases such as a too high load of heavy metals, imbalance of the hormone system, imbalances or blocked immune system, chronic infections, silent inflammation, etc. etc. The cancer nodule is only a symptom of these many ill making factors. To treat the symptom, that means to take the node out, or radiate it, or throw a chemical on it, is too easy. Treating just the symptom is like shooting the messenger of bad news. Usually, the conventional oncologists do not trust the body's ability to heal it self. It is clear now, that cancer is a biological answer to internal imbalances created by unresolved inner conflicts in conjunction with other factors, such as lifestyle, diet, environmental toxins and infectious agents, psychological and mental conflicts, etc.

Targeted Delivery of Chemo enhanced by hyperthermia

Hyperthermia is a treatment modality in cancer, which is rather old, but still not wide-spread in oncology. Although hyperthermia, by itself, is oncotoxic, meaning that it can destroy cancer cells, it induces also heat shock proteins, which make the cancer recognizable by the immune system. Heat shock proteins are the signals for the natural killer cell to eliminate that cell. So, hyperthermia does not only destroy cancer, it also induces an immune answer to cancer. You see here already the fundamental difference between conventional cancer treatment and our approach. In our system the cancer gets destroyed within the body by hyperthermia and the immune system gets the chance to recognize the cancer and learns how to destroy it. We know that hyperthermia can enhance the activity of chemotherapy and radiotherapy. This is interesting for us, but not what we were looking for. We wanted to have on one side higher effectivety at the tumor site and on the other side less toxicity out of our treatment. Our slogan is to attack the cancer, but support the host. In conventional oncology patients often suffers more from the treatment than from the disease. What we also learned was very simple. It is long know, that insulin, the body's own hormone allows us to target chemotherapy drugs directly to the cancer cells while largely bypassing the healthy cells.

This approach, IPT, was first used for cancer treatment in 1946 and has been a successful cancer treatment used around the world, ever since. Studies at George Washington University, the National Cancer Institute, and M. D. Anderson Hospital and Tumor Institute demonstrated that insulin potentiates (makes more effective) chemotherapy drugs. Otto Warburg, a German Noble Prize winner, taught us that cancer cells differ from normal cells in the aspect that their main fuel is glucose (sugar). This is a clear difference that can be used to our advantage in therapy. When we administer insulin to drop a patient's blood sugar level, cancer cells become ravenous for any sugar (fuel) that they can find left in the bloodstream.

At the therapeutic moment, or “therapeutic window” - that is usually when the blood sugar level drops into the 40s - the cancer cells are screaming for sugar, all doors and windows are open. Now we administer the chemo drugs, and the cancer cells take the drugs also in their effort to get more sugar. It doesn't take long for the drugs to find their way into the cancer cells; a few minutes later the patient's blood sugar level can be brought back up to normal.

A 1981 George Washington University study found that using insulin increased the killing effect of one of the key chemo drugs, methotrexate, by a factor of 10,000.[5,6] The use of insulin to target chemo works so well, that patients need to receive only about 10%-20% of the usual dose. This cancer destruction can be enhanced even further by the synchronical application of local or systemic hyperthermia. Hyperthermia enhances the metabolism of cells in general and an increase in metabolism means a higher demand for sugar. A normal cell can gain 36 mol of ATP from one mol of glucose, a cancer cell can gain only 3 mols since it burns down glucose by anaerobic glycolysis to pyruvate, respectively to lactic acid. So, long term exposure of cancer tissue to heat means metabolic exhaustion and together with the targeted chemo drugs through IPT: **death of the tumor**. The smaller dosage of chemo used by IPT and the additional enhancement by hyperthermia avoids a lot of the known side effects on the bone marrow, immune system and other vital organs. Our patients, typically, do not have severe nausea, or gastro-intestinal symptoms, or hair loss as commonly happens in conventional therapy. Our patients feel better during treatment and report a better quality of life than these patients who undergo conventional treatment.

Hyperthermia in combination with Insulin brings other assets to the table as well. In conventional treatment, only about 20% of the cells are being attacked at any one time. Hyperthermia plus IPT, however, sends cells into a growth phase so they are sensitized and this makes it more likely to kill the cancer cells. Another aspect why we like to combine IPT with hyperthermia is, that this

approach increases the cellular permeability, meaning glucose goes in more easily as does the low-dose chemo and so the cancer cell become more sensitive to heat.

Chemo Isn't the Only Game

Cancer cells tend to become resistant to chemo. It is therefore very helpful if we have something else available that contains something other than chemo. This is where high dose vitamin C can be used. It is used as an adjuvant agent to kill cancer cells. The US National Institutes of Health (NIH) reported in 2005 that high doses of vitamin C given intravenously are able to kill a high proportion of cancer cells. This mechanism of cellular death results from high levels of intracellular hydrogen peroxide which are produced in response to the vitamin C. High dosages of intravenous vitamin C can also help the immune system to control bacterial and fungal infections.

Whereas conventional oncologists don't use, or even tell their patient not to take, the antioxidants because they could interfere with the oxidative action of chemo-drugs, integrative oncologists, like us, use a number of antioxidants. Conventional therapy sees the need for the chemo agents to act for several days to damage as many dividing cells as possible. Our integrative therapy concept does not need this because with IPT and hyperthermia we target the cancer cells when the drugs are administered and kill them together with hyperthermia. This approach of using antioxidants afterwards to get the chemo out quickly is better for the immune and the natural repair mechanisms. In this phase it also very important to supply the patient with enough oxygen. We use ionized oxygen in combination with pulsed magnetic fields. This increases, not only, the oxygen supply to the tissues, but also increases the energy and helps to overcome the fatigue problem that very many cancer patients have. Cancer patient, in general, have no normal oxygen utilization; we can quantitatively measure that. Helpful is in this phase ozone treatment. A certain amount of ozone is mixed inside a bag of blood, the ozone disappears in seconds. There is no ozone in the blood when it reenters the patient because it has already formed into peroxides. We are infusing peroxides. respectively ozonides, that act for several weeks and stimulate the ATP (cellular energy) production as much as 40%; they are antibacterial/- fungal/-viral. Combining oxygen with antioxidants markedly increases also the synthesis of TNF-alpha, which the body produces to interfere with growth of tumors.

Emotional Baggage

The role of chronic stress in degenerative disease is well documented. People with positive outlook have a better prognosis. The mind-body link is basically biological. Cancer runs in families or patients have a genetic change, but these expressions are not cut in stone. The coding on our DNA acts like an antenna scanning what it finds, and then coding the proteins. The environment, diet - and ones' feelings, the way one responds to stress - can change how the body deals with weaknesses in the DNA. There is no doubt about a connection between the type of cancer and the emotions of a patient. It can be so specific that we for instance find that breast cancer is about a "nest conflict," an emotional trauma related to a loved one living in the home. One other aspect is that cancers are triggered by a traumatic emotional conflict or a severe shock, usually within two years prior to the cancer's diagnosis. But not all patients are willing to go deep into their psyche, usually, they don't like to talk about the traumatic event. They may not even remember the event, as it has been put into their subconscious. But awareness can be very important for healing and our immune system regulators. However, conventional medicine, with its focus on finding one drug/one cure, has difficulties to accept and integrate the concept of emotional stress into their treatment strategy. Conventional oncology is focused toward one magic bullet, but we are not going to defeat cancer looking for the magic bullet.

Most everybody now knows someone who has undergone conventional cancer treatment and they know how difficult it is. The majority of people who die of cancer die after taking mainstream cancer treatments. So many people get pushed into conventional treatment with the sales tactic of fear. That is not right. Everybody should have enough time to find out what is his way. One should keep in mind that one does not have the opportunity to reverse later when one learns more and knows better. Most treatments in conventional therapy are one way strategies. In contrast to our system, that always allows for reverse. Treating the whole human being makes a dramatic turnaround in cancer survival rates, particularly in later stage cancers. So, if we want to survive we have to create this personalized “platform”.

What hast to be done

- serious diet changes,
- physical exercise,
- coffee enemas,
- detoxification that lessen the chemicals in the bodies and in environments
- procedures and medical therapies that work together to heal holistically (e.g., IPT, vitamin C, nitrilosides, hyperthermia, ECT, quercetin, curcumin and other natural anticancer drugs, ozone etc.
- digging into the emotional level

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