Thinking Outside the Box: Viewing Cancer Holistically

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When a new cancer patient steps into my office, the first question that goes through my mind, no matter what type or stage of cancer, is: "what are the causes of this person's cancer?"

Discovering the cause of cancer is the first and most important step in its cure. The second step is understanding how cancer cells behave in the body and why – this is the main premise of this article, even though space restrictions only allows me to simply touch on a very complex topic.

When I begin testing the patient using a variety of different diagnostic modalities such as the IDEL Diagnostic Programme *(www.docgeorge.com)*. I usually find between 15-20 causative factors. The testing is comprehensive and takes about 5 hours of clinical time, but it can be the difference between life and death – any other way is guesswork.

Cancer is Multidimensional

Cancer is certainly multi-dimensional with inter–connecting causes on different levels. Cancer is related to a change in the biochemistry of the cell, and nutrition, pernicious agents (including medicinal drugs) and radiation can all directly affect the cell. On the physical level nutritional deficiencies, chronic inflammation caused by microorganisms such as viruses, bacteria, fungi and parasites, food intolerances as well as congested detoxification pathways, pH, redox and resistivity changes, toxic metals and organic xenobiotics, geopathic, electromagnetic, mobile phone and ionizing radiation stress can all be involved.

On a psychoemotional and spiritual level suppressed negative emotions, emotional traumas, negative beliefs, systemic entanglements (Hellinger) and blocked or distorted bio-energy flows - as found in the acupuncture meridians (teeth and scar foci) - are also contributing factors.

These are all trigger factors that can make cells divide uncontrollably. It must be stressed that it is never one cause but a myriad of causes all interacting over time to cause the cellular degeneration. Genetics is a small component of this cascade and predisposes the individual, but is usually responsible for no more than 7% of pathogenesis.

Orthodox medicine seems to focus on a local event on the level of the genetic material in the nucleus – something triggers this genetic material and the cell goes out of control, madly proliferating until a tumour develops – this all apparently occurs in a healthy body! The tumour then becomes the enemy which we have to destroy using surgery, chemotherapy and radiation while ignoring the myriad of causative factors that were responsible for the cancer in the first place. The end result is a further damaged body and a high probability of metastasis.

The crucial goal in cancer cures is to eliminate **all** the cancer cells in the body, **not** simply the tumour. In order to achieve this one must work on many levels to bring the body back into balance, eliminating the causative factors and using non-toxic, natural remedies to halt the rapid proliferation of cancer cells, while modulating the immune system. This is the premise of the Holistic Model of Cancer that I am espousing here.

Holistic Medicine sees cancer as a disease of the total organism, not just a localised event. It is a systemic disease that is multifactorial in its causes. It is therefore crucial to understand the workings of cancer cells – how do they respire, what are their byproducts, how do they differ from normal cells and why? It is this understanding that I believe will lead to thinking 'outside the box' – something that is imperative if we are going to have half a chance at curing the patient.

Cancer and Mitochondrial Dysfunction

Ultimately, all the possible causative factors mentioned above trigger the healthy cell to undergo biochemical havoc leading to the proliferation of cancer cells. It is also interesting to note that most of this triggering takes place in the cytoplasm where these pernicious agents and energies

concentrate, **not** the nucleus. P.G. Seeger in Germany who published 290 scientific works and was twice nominated for the Nobel Prize (in 1979 and 1980), showed that in cancer cells the respiratory chain was blocked by the destruction of important enzymes, such as cytochrome oxidase.

It was shown that cancer cells convert glucose into lactic acid to produce energy - Seeger and others found that cancer cells utilise only between 5 to 50% of the oxygen of normal cells. The lower the oxygen levels, the more virulent become the cancer cells. In 1957 Seeger successfully transformed normal cells into cancer cells within a few days by blocking the respiratory chain using chemicals. He also discovered after thousands of experiments that certain nutrients from the vegetable kingdom could restore cellular respiration in cancer cells and transform them back into normal cells.

So what is destroying these very important cytochrome enzymes? There is no question that the heavy metals and xenobiotics in our environment are the prime cause as they target and destroy cardiolipine, a lipid contained in the inner mitochondrial membrane, to which the cytochrome enzymes of the respiratory chain are attached. When the cardiolipine is destroyed by these pernicious agents, the oxidative processes are adversely affected.

The destruction of this enzyme Cytochrome Oxidase (Cytochrome a/a3) is what triggers the cell to begin dividing as a cancer cell. This is really important to understand in order to be able to reverse these degenerative, cancerous cells by utilizing specialized enzyme-active nutritional substances and select vegetable and fruit hydrogen acceptors. These enzyme-rich nutritional substances include: Saccharomyces cerevisiae (live fluid yeast strain), red beet juice, raw blueberry juice, bromelain (pineapple enzyme), raw pineapple juice, raw red grapes, raw red cherries, carotene (specifically beta carotene from carrot juice). Others would include barley Grass powder, Kamut Grass powder and Chlorella.

Cancer and Anaerobic Respiration

Prof. Otto Warburg, a twice Nobel Prize winner for his work in the behaviour of cancer cells summarized it very succinctly:

Cancer has only one prime cause. It is the replacement of normal oxygen respiration of the body's cells by an anaerobic [i.e., oxygen-deficient] cell respiration.

Dr. Otto Warburg

As Dr. Majid Ali, M.D. aptly states:

"*the state of the oxygen in the body, not chemotherapy or radiotherapy, determines the long-term health and quality of life of the patient".*

He further purports an Oxygen Model of Cancer that has three basic aspects: Acidosis (too much acidity) leading to Oxidosis (too much oxidation) which further leads to Dysoxygenosis (lack of oxygen) – this sequence of events is what is required to trigger the growth of cancer cells. Dr. Ali continues to say: "Chemotherapy drugs significantly contribute to oxidosis (too much oxidative stress), acidosis (too much acidity), and dysoxygenosis (oxygen dysfunction) in many ways. It is for these reasons that nearly all cancers become much more aggressive and grow rapidly when they return following chemotherapy."

It is reported that cancer cells can produce forty times more lactic acid than normal cells.[1] Cancer scientists have assumed that since cancer cells usually have poor vascular systems, they lack oxygen and therefore revert to fermentation for their major source of energy. Researchers believe it is the lack of oxygen that causes cancer cells to produce excessive lactic acid.

Cancer cells have a voracious metabolism for sugar – they use 18 times more glucose than normal cells and produce only 2 molecules of ATP as opposed to the 38 molecules of normal cells. Cancer is therefore caused by an oxygen-deficient, glucose-rich (sugar) environment.

These observations provide us with important clues to how we should treat a cancer patient – first, **do not** feed cancer cells **sugar**, which is their primary food. Second, make certain that the body obtains plenty of **oxygen** to facilitate the respiratory chain and unblock important enzyme systems. We will soon see how another famous scientist; Dr. Johann Budwig managed to do just this.

Reoxygenation of Cancer Cells

Even though Prof. Otto Warburg won two Nobel prizes for his work on oxygen and cancer cells, demonstrating that a reduction of oxygen by 35% was enough to trigger a healthy cell to become a partially anaerobic cancer cell. One thing that he could not seem to solve, however, was how to get the oxygen back into the cancer cell. He knew that fatty acids on the membrane of the cancer cell had something to do with this, but it was Dr. Johanna Budwig, a German fat researcher, whose research found that phosphatides and lipoproteins were highly deficient in cancer patients and were crucial for the oxygenation of the cancer cell.

By using liberal amounts of high-quality linseed oil and the sulphur-amino acids cysteine and methionine the respiratory chain was reactivated and cancer patients recovered. This is now known as the *Budwig Diet* and consists of adding Flaxseed oil to Quark or Cottage cheese. It is now an obligatory dietary protocol in most of the cancer patients that I supervise nutritionally.

All this scientific research and its practical results continue to be ignored by the Cancer Establishment and despite the evidence to the contrary, they still maintain that cancer originates in the nucleus; that it cannot be reversed but only treated by killing all cancer cells; that curing cancer with nutrition is impossible, and those who do it anyway are frauds and quacks, and must be prevented from practising. Cured cancer patients have praised the Lord on many occasions for the 'quacks' that have helped them cure their cancer!

[1] Holm H, Staedt E, Schlickeiser G, Gunther HJ, Leweling H. Substrate balances across colonic carcinomas in humans. Cancer Res l995;55:l373-8.

To further facilitate our understanding, let's look briefly at the different steps in the development of a cancer cell.

Steps in the Development of a Cancer Cell

Cancer cells do not just grow of their own accord without reason. The first step in the pathogenesis of the cancer cells is the attachment of carcinogenic type molecules to the membrane surface. This involves two factors: (a) the presence of carcinogenic-type molecules primarily of the polycyclic type, and (b) a chronic inflammation from other factors such as disturbed pH that will change the polarization of the cell as well as its **Trans Membrane Potential** (**TMP**). These pernicious agents attach to cardiolipine and block the Cytochrome Oxidase enzymes, therefore competing with oxygen and not allowing it to enter the cell in optimal amounts, even though glucose is still allowed to enter. The cell will then begin to convert from aerobic respiration to anaerobic respiration.

The next step in the absence of oxygen is for the glucose to undergo fermentation to lactic acid. The cell's pH will inevitably become acidic, finally dropping to pH 6.5 or lower.

In this acid medium the DNA loses its positive and negative radical sequence which changes the amino acid sequences entering the cell. Ultimately the RNA is changed and the cell become apoptotic, completely losing its control mechanism. It is highly likely that chromosomal aberrations will occur at this stage. Making the cell alkaline and oxygenating it will help it to produce enough energy to activate the p53 gene to produce the proteins that can cause apotosis.

Finally, in the acid medium the various cell enzymes are completely changed. Von Ardenne has shown that lysosomal enzymes are changed into very toxic compounds. These toxins kill the cells in the main body of the tumour mass. A tumour therefore consists of a thin layer of rapidly growing cells surrounding the dead mass. The acid toxins leak out from the tumour mass and poison the host. They thus give rise to the pains generally associated with cancer. They can also act as carcinogens. The high acidity and low oxygen environment also triggers vascular endothelial growth factor (VEGF) leading to angiogenesis that feed the growing tumour.

So as you can see, cancer is a destructive behaviour of cells, incited and perpetuated by many factors that cumulatively lead to anomalous oxygen signalling. It has six other principal characteristics:

1. Respiratory-to-fermentative (RTF) shift in ATP production.
2. Production of abnormal quantities of organic acids, lactic acid and others.
3. Creation of an insulate of coagulated proteins (sialo-glycoproteins) around malignant cells to repel leukocytes.
4. Uncontrolled cellular replication that disrupts local tissue architecture
5. Colonization of distant tissues in which the destructive behaviour of neoplastic cells continues.
6. Under certain conditions, a cancer cell can be coaxed to alter its behaviour.

Cancer cells severely punish healthy cells that get in their way. They smear the surfaces of noncancerous cells with their toxic acids, blocking their membrane channels, receptors, and pumps. They clot proteins in the fluids that bathe noncancerous cells, and so rob them of their nourishment.

The process of protein clotting also reduces blood and lymph flow in healthy tissues, so devitalizing them. By those and other nefarious activities, cancer cells also cause mutations in genes of noncancerous cells. The cumulative results of all those phenomena is deoxygenation of normal cells causing cancer-like metabolic changes in noncancerous cells, which literally cannibalizes them.

So how can we reverse this extreme acid environment of a cancer cell, which is one of the key factors in the series of events that make the cancer cells more and more virulent?

Natural Chemotherapy

There are many natural substances known that can effectively kill cancer cells. One that is well researched (Dr. Keith Brewer),[3] and is very useful in metastatic cancers that can swiftly reverse an extremely acidic cancer cell into an alkaline one, is Cesium chloride - a natural mineral found in the earth, that has a pH of 8.0 and can freely enter the cancer cell. Cesium ions are taken into the cell via the sodium-potassium pump, substituting for potassium, and are trapped there. They also block the exit of the potassium ions by blocking the potassium channel proteins in the cell walls - one reason why it is crucial for patients to also take potassium along with the Cesium.

Cesium raises the cell pH to the range of 8.0, neutralizing the weak lactic acid and stopping pain within 12 to 24 hours. A pH range of 8.0 is a deadly environment for the cancer cell. The cancer cell dies within a few days and is absorbed and eliminated by the body.

The accumulation of Cesium and potassium ions in the cell negates the voltage potential across the cell membrane. This voltage potential is required to energize the sodium-glucose co-transport system that feeds the cell. The cell thus starves and will eventually lyse. The sodium-potassium pumps of cancer cells operate 20 times faster than normal cells, and will therefore starve much quicker than normal cells due to the fast uptake of Cesium.

[3] Reprinted from *Pharmacology Biochemistry & Behavior*, v. 21, Suppl., 1, by A. Keith Brewer, Ph.D.," The High pH Therapy for Cancer, Tests on Mice and Humans," pp. 1-5, Copyright 1984

There are certain factors which may enhance the Cesium-therapy. The Cesium penetration into the cancer cell can be increased by the following two methods: 1). The first approach resides in broadening the electron donor capacity of the cancer cell membrane by the application of cyanide, an electron donor radical as found in nitriles (apricot seeds, amygdalin, Laetrile), by using selenium, an electron donor radical; or 2). by the use of DMSO. The second approach enhances the potential gradient across the cancer cell membrane by the utilization of weak acids like ascorbic acid (Vitamin C) and retinoic acid (Vitamin A).

Perhaps the most well known physician to use Cesium to treat cancer is Dr. H. E. Sartori.[4] He began his Cesium (Cs) cancer therapy program in April 1981 at Life Sciences Universal Medical Clinics in Rockville, Maryland, where 50 patients with "terminal" metastatic cancer were treated.

The Cs-treatment consisted of Cesium Chloride, in addition to some vitamins, minerals, and optimizing diet. The results demonstrated an impressive 50% full recovery from various metastatic cancers that were given zero percent prognosis. There was a variety of cancers such as unknown primary, breast, colon, prostate, pancreas, lung, liver, lymphoma, ewing sarcoma of the pelvis and adenocancer of the gallbladder. A consistent finding in these patients was the disappearance of pain within the initial 3 days of Cs-treatment, probably due to the rapid neutralization of the lactic acid. The small number of autopsies made showed the absence of cancer cells in most cases, even after only a couple of weeks of using Cesium, and the clinical impression indicates a remarkably successful outcome of treatment. Please bear in mind that these were stage IV metastatic cancers with a zero prognosis by the medical fraternity, so a stage I or II cancer would certainly expect far higher success ratings closer to 80-95%.

Cesium is best used transdermally by mixing with DMSO. This method was introduced in the 1960's by a research team headed by Stanley W. Jacob, M.D.,[5] at the University of Oregon Medical School. A study was conducted in which DMSO was mixed with a haematoxylon (a purple dye) and injected into patients with cancer. The purpose of the study was to determine which cells would "attract" the DMSO. They learned that DMSO has an affinity for cancer cells. As a matter of fact, some of the cancer patients were cured during this study, even though DMSO was only being combined with a dye!

Other minerals are also used along with the Cesium such as Germanium, for stimulating natural killer cells and T-suppressor cells; Indium enhances food and mineral absorption by the body; Manganese makes up part of a molecule known as mucopolysaccharides, used to form collagen that builds tissues throughout the body; Molybdenum is instrumental in regulating pH balance in the body - for each pH point increase (e.g., 6.1-6.2), the oxygen level is increased ten times, so this is crucial; Selenium is essential for building glutathione peroxidise enzymes as well as immune modulation.

If someone were to tell you that the pancreas is an extremely important organ that helps to prevent the spread of cancer in the body, you would probably ask "why?" This question was answered at the beginning of the century!

Trophoblastic Theory Forgotten

John Beard, Ph.D. was a Scottish Embryologist who formulated the Trophoblast Theory of Cancer in 1902. Beard, who taught at the University of Edinburgh until his death in 1923, was not a physician but a research biologist whose main interest was the placenta. He published his first book "The Enzyme Treatment of Cancer" in 1911.

What he discovered was that cancer cells are virtually indistinguishable from pre-embryonic cells called "trophoblast cells" – these are cells that grow very quickly during the initial stages of pregnancy in order to stimulate the development of the placenta and umbilical chord.

Placental cells not only look like cancer cells under the microscope, Beard realized, but even more significantly, the trophoblastic cells behave like cancer cells. These placental cells are called trophoblasts and are the first cells to differentiate from the fertilized egg. The most highly malignant exhibitions of cancer known are the chorionepitheliomas comprised of frank trophoblast cells - cytologically, endocrinologically and otherwise indistinguishable from normal pregnancy trophoblast cells.

Researchers have identified a number of differences between cancer cells and normal cells, such as:

- First, cancer cells are invasive; such cells produce a host of enzymes that enable them to break down tissue barriers and spread through normal tissue with deadly efficacy.
- Secondly, cancer cells and malignant tissues develop their own blood supply - through the process known as angiogenesis - allowing the tumour to grow effectively wherever it chooses to grow.
- Thirdly, cancer cells and tumours, unlike normal tissues and organs, grow without restraint or inhibition – their apoptotic mechanism has 'switched off'; normal tissues grow as needed and when needed but only as appropriate.

It is interesting to find that cancer cells, like trophoblast cells, do not induce any immunological reaction. A prime reason for this was discovered in this century by Currie and Bhagshawe who showed that the tropho-

[4] H. E. Sartori, Cesium therapy in cancer patients, *Pharmacology Biochemistry & Behavior*, v. 21, Suppl., 1, 1984, Pages 11-13 [5] E. J. Tucker, A. Carrizo, Haematoxylon Dissolved in Dimethylsulfoxide [DMSO] Used in Recurrent Neoplasms, June 1968.

blast was surrounded by a coating (sialo-glycoprotein) including a molecule that gave it a negative charge. The molecule can be likened to mucilage and has been termed the **sialo-mucinous coat**.

A negative charge is also found on the white blood cells responsible for immune reactivity. Since two like charges repel, we have delineated the primary reason for lack of rejection based on immune responses. This same type of coating is found on the cancer cell. And in fact, it is one of the chief reasons for classifying all cancer cells as "trophoblastic."

Another observation was that the placental trophoblasts seem to take a downturn in activity around the time of the activation of the foetal pancreas, which occurs around the 56th day. This ties in with modern research which has shown that these trophoblast cells secrete a hormone called Human Chorionic Gonadotropin (HCG or CGH), and the quantities of this hormone rise until around the 56th day and then begin to taper off.

It is this very hormone that coats the trophoblast and cancer cell to make them both immunologically inert. This pregnancy hormone is expressed in all types of cancers. Dr. Manual Navaro in the 1960's and 70's found that measuring CGH in the urine was 95% accurate in the early detection of cancer – this test is no longer used.

After the trophoblast cells have built the placenta and embedded themselves in the endometrium, they have no further function. On the 56th day the embryo's pancreas begins to produce pancreatic enzymes which break down the sialo-glycoprotein coat and allows the phagocytes to engulf the trophoblast cell.

Treating Cancer with Systemic Enzymes

So what is the significance of this regarding the treatment of cancer? Simply that using pancreatic enzymes, which are known as 'systemic enzymes' helps to digest this sialo-glycoprotein coat of the cancer cell, therefore changing the charge from negative to positive. This inevitably facilitates the attraction of leucocytes which have a negative charge.

Beard believed that when the health of the pancreas becomes impaired and the output of pancreatic enzymes declines or stops, any malignant cancer cell that begins dividing, grows out of control.

If indeed this is the case, then an interesting question is raised – why is it possible to get pancreatic cancer when there are so many enzymes to digest the sialo-glycoprotein coat of the cancer cell?

The answer lies in the fact that for the pancreatic enzymes to be activated they need a highly alkaline environment such as pH 8.0. This is only present in the small intestine in the initial part of the duodenum. Cancer of the initial part of the small intestine or duodenum is rare. It must also be noted that pancreatic enzymes as used for digesting food, are not adequate for treating cancer as they do not contain the activating factors trypsin and chymotrypsin, which are imperative.

Enzyme formulas have now been created containing both trypsin and chymotrypsin – the most popular of these is Wolf/Benitez "WoBenzyme®" systemic enzyme formula, which is reportedly the second-best selling OTC product in parts of Europe – after ordinary aspirin.

Indeed, Dr. Gonzalez is presently conducting a phase II clinical trial using systemic enzymes to treat metastatic pancreatic cancer, with a 60% success rate.

Nutrition and Cancer

We have already mentioned above that sugar and all related products will feed cancer cells and help them become more virulent, by decreasing further their oxygen supply. However, there are other foods such as meat that should also be cut out altogether. Why?

Meat is rich in Glutamine, another essential food for cancer cells which will promote tumour growth. Please also bear in mind that high glutamine levels are also found in wheat. Cooked meat is also likely to contain Heterocyclic Amines (HCA's), known carcinogens, that are produced during the cooking process of many animal products, including chicken, beef, pork, and fish. Consumption of high saturate fat found in most meats, can increase certain hormone levels as well as inflammation in the body.

Eating plenty of fresh vegetables and their juices is always a good idea in cancer, along with some fresh fruit, but not a lot, and certainly not fresh fruit juices that are heavily laden with sugar. Eating some sea fish occasionally is good as protein is important for keeping the immune system healthy. All food intolerances should be strictly avoided, whatever they may be for each patient. Wholemeal cereal products are also fine, but wheat should be eaten very occasionally if at all. Pulses are also fine if soaked and cooked well. Strictly no refined products, sugar, fried foods, packaged foods, colourings and preservatives – nutrient-dense foods should always be sought.

Vitamin C and Cancer

Many practitioners use vitamin C with cancer patients based on Prof. Linus Pauling's and Dr. Cameron's research. What they do not realize is that there has been research to suggest that Vitamin C at ordinary doses (human equivalents of 1 to 5 grams/day) increased the growth rate of cancer while far larger doses (10grams or more) suppressed the cancer growth rate. This is because vitamin C and alpha-ketoglutarate are both required to produce collagen. The combination of producing collagen, a cellular building block, and a modest amount of additional energy could promote the growth of cancer. Larger amounts of vitamin C (10-12g daily minimum) would greatly enhance the respiratory chain and would restart the Citric Acid cycle and thus aerobic metabolism would be reinitiated. This would allow the cell to return to normal cell behaviour. In the process it would lower the concentrations of alpha-ketoglutarate and decrease the collagen producing (and vitamin C consuming) side chain.

One last thing that is often overlooked by many practitioners is **dehydration**. There is probably no quicker way to make the body more toxic and to decrease oxygen levels, than to drastically reduce the cell's water supply. In my practice at least 60-70% of cancer patients are extremely dehydrated.

Halting Metastasis

Over the last two decades, research into controlling or halting cancer metastasis has led to two promising new strategies. The first, anti-angiogenesis, targets the growth of new blood vessels (angiogenesis) that are required for tumour growth. Originally pioneered by noted cancer researcher Dr. Judah Folkman, anti-angiogenesis grew from his observation that tumours cannot grow without access to a constant supply of new blood vessels. Folkman theorized that cancer cells actively communicate with surrounding tissues to trigger the growth of new blood vessels (neovascularization) needed to supply nutrients and remove waste products. Once neovascularization is initiated, hundreds of new capillaries converge on the tumour site and are quickly coated with new layers of rapidly dividing tumour cells. There are a number of natural compounds that have been found to act as anti-angiogenesis factors – laetrile or vitamin B17 as well as Squalamine found in liver tissue (not the "liver oil") of the deep water shark. Squalamine is an aminosterol compound which the body readily uses to carry out its normal anti-angiogenesis function. Soy isoflavones have also shown promise as anti-angiogenesis factors.

The second strategy for controlling metastasis works by intercepting migrating cancer cells before they have a chance to establish new tumours. This approach targets a family of carbohydrate-binding proteins called galactoside-binding lectins, that help cancer cells stick together to form multi-celled clusters that are believed necessary for metastasis formation. Lectins also enable cancer cells to communicate with each other, as well as with other types of cells (cell-to-cell communication) to trigger cellular transformations that assist the spread of cancer.

A number of cancer researchers have focused on galectin-3 which strongly binds with galactose. Once the cancer cell in firmly lodged in the microcapillary network, galectins on the surface of the cancer cell start to bind to galactose receptors on endothelial cells and penetrate through the blood vessel walls. The final step after invading the vessel involves the release of chemical signals that trigger new blood vessel growth (angiogenesis), and a new tumour colony is firmly established.

Modified citrus pectin (MCP) is a unique dietary fibre that is produced by processing natural citrus pectin by altering its pH and splitting the carbohydrate chains to form a low molecular-weight, water-soluble fibre that is rich in the sugar, galactose. It is this presence of particularly high amounts of galactose that led researchers to wonder if MCP might bind with proteins (lectins) on cancer cells to inhibit their ability to bind with other tissues.

In 1992, Platt and colleagues demonstrated that MCP was effective at reducing metastases in mice injected with live melanoma cells. Seventeen days after being injected, the mice receiving untreated melanoma cells were found to have, on average, 33 new tumours (metastases) in their lungs, while the mice receiving the MCP-treated cells had virtually no lung tumours. Start with one teaspoon (5 grams) daily. Gradually increase to 2-3 teaspoons daily - mix in a blender with 8 oz. of water, juice or other liquid, and drink immediately.

The collagen-dissolving mechanism also plays a major role in the spread of cancer and the growth of secondary tumours in other organs or parts of the body (metastases). With the help of collagen-digesting enzymes called malignin (a sterioisomer of trypsin), a cancer cell can "eat" its way into the lumen of the small blood vessel and into the blood stream. The blood can then carry away cancer cells, by which means they can spread and invade other organs.

Rath's therapy may allow the body to digest the tumours more slowly, or the tumours may calcify. The daily protocol from Dr. Matthias Rath is reportedly:

- ✓ **14,000 mg Vitamin C**
- ✓ **12,000 mg Lysine**
- ✓ **2,000 mg Proline**
- ✓ **1,000 mg Green Tea Extract (EGCG)**

There are sound theoretical reasons to add 400 mg of highly absorbable Coenzyme 10 (CoQ10) to any anti-cancer protocol. This dosage reportedly initiates complete tumour regression in breast cancer patients and may work by stimulating the production of trypsin in the pancreas.

Epilogue

I will conclude by saying that this article only really brushes the surface of an extremely complex topic. There is much more to add including the role of emotions and their relationship to cancer; Dr. Hamer's work and how shocking experiences can actually lead to a lesion in the brain that identifies with specific cancers; how pleomorphic microbes can play a role in cancer formation … and much more.

Practitioners interested in further details of protocols mentioned above can find a lot more information at *www.docgeorge.com* – click on 'Natural Cancer Cures' – subscription will entitle you to access over 500 pages of material on this topic.

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