

Cellular Extraction Therapy (CET): A possible treatment for Cancer?

Abstract: The primary or fundamental cause of cancer appears to be the result of low cellular oxygenation levels. Dr Otto Warburg won a Nobel Prize in 1931 for proving cancer is caused by a lack of oxygen respiration in cells. This paper presents a natural mechanism by which oxygen can be delivered to cells, including cells with cancer, which would totally eliminate cancer from the body over time.

Theory: Warburg and other scientists have found that aerobic respiratory enzymes in cells die when the cellular level of oxygen decreases. (McCabe, 2001). Therefore, in order for such cells to survive, they must function anaerobically. Warburg indicates that cells which produce energy by fermenting sugars (anaerobic metabolism) may turn cancerous. Warburg (1966) states “Cancer, above all other diseases, has countless secondary causes. But, even for cancer, there is only one prime cause. Summarized in a few words, the prime cause of cancer is the replacement of the respiration of oxygen in normal body cells by a fermentation of sugar. All normal body cells meet their energy needs by respiration of oxygen, whereas **cancer cells meet their energy needs in great part by fermentation**. All normal body cells are thus obligate aerobes, whereas all cancer cells are partial anaerobes.”

It has been observed that the heart never develops cancer. This is because the body is designed in such a way that the heart cannot sustain anaerobic metabolism (Huang Y et al, 2004). The reason for this is because when cells function anaerobically, they produce lactic acid. When lactic acid accumulates in muscle tissue, the muscle ceases to function until the lactic acid is either removed or metabolised. If the heart ceases to function, then the body dies. In order to ensure that the heart is always functioning, the heart is not capable of continuously operating anaerobically. For this reason the heart itself never develops cancer. The eventual shutdown of muscle activity due to the accumulation of lactic acid in muscle tissue may have evolved as a way of ensuring that the muscles don't become entirely dependant on an anaerobic metabolism, hence protecting them from developing cancer.

Radiation and Chemotherapy can be successfully used to kill cancer cells because cancer cells are weaker than normal cells, hence they are more susceptible to damage. (McCabe, 2001). Unfortunately, Radiation and Chemotherapy both damage respiratory enzymes in normal cells, increasing the probability that such cells may begin to function anaerobically, thus become cancerous themselves. (McCabe, 2001). The major implication of this and other cancer research is that increasing the level of oxygen in the body at the cellular level would not only kill cancer cells, but prevent it from developing in the first place. (Lindenschmidt et al, 1986).

Unfortunately it is rather difficult to transport additional oxygen into cells. The levels of haemoglobin, the oxygen carrying molecule present on red blood cells in the body are limited. What is needed are mechanisms that can transport oxygen into cells, or generate oxygen within cells. The cellular components found in plants, leaves and grasses appear to have these abilities, as well as other mechanisms of action that effectively fight cancer.

Lee WY, et al, (1990), discusses a derivative of chlorophyll called CpD-A. This derivative was extracted from silk worm (*Bombyx mori*) excretas, along with three other chlorophyll derivatives, namely CpD-B, CpD-C, and CpD-D. However, only CpD-A was extensively studied to understand its role as a “photosensitizer” for photodynamic therapy of tumours in vitro. CpD-A was found to be photoreactive both in itself and also in its cell bound forms. Following exposure to lights of varied wavelength, cell bound CpD-A produced fluorescent light and a single molecule of oxygen. 650 nm was found to be the maximum absorbance band, and CpD-A was effectively activated after only ten minutes of light irradiation. What was also found to be of interest, was the fact that CpD-A had specificity for human and mouse tumor cells, despite the differences between the two species. A greater amount of CpD-A and fluorescence was observed in cancer cells, as opposed to normal cells. Tumour cells treated with CpD-A were completely destroyed in just two hours of light irradiation. Over 80% of the normal, non-tumour mouse and human cells remained alive after treatment.

Another article of interest was presented by Ebermann R et al, (1996). This article states that chlorophyll as well as some of its synthetically produced derivatives act as important sensitizers in photodynamic cancer therapy. Quinones such as hypericin and fagopyrin, which are also found in plants, also have light dependant activity. Upon photoexcitation with visible light, Ebermann R et al, (1996) states that these molecules also produce single molecules of oxygen.

Chernomorsky S, et al, (1999), states that food sources that yield chlorophyll derivatives may play a significant role in cancer prevention. Chernomorsky S, et al, (1999), also mentions that Chlorophyll is known to be converted into derivatives such as pheophytin, pyropheophytin and pheophorbide after it is ingested by humans. Chernomorsky S, et al (1999) found that these derivatives displayed antimutagenic and tumoricidal properties. de Vogel, et al (2005) found that consuming green vegetables may reduce the risk of developing colon cancer, as chlorophyll was found to prevent the cytotoxic, detrimental and hyperproliferative effect that dietary haem can have on the colon.

So why do humans develop cancer, if we digest such beneficial foods? Clearly, if we consume the previously mentioned cellular components present in plants, and spend a small amount of time in the sun (to induce photoexcitation of the plant components absorbed by human tissue to increase cellular oxygen levels) our cellular oxygen concentration would be higher, which would be lethal to cancer. Consuming such foods would not only kill cancer, but it would help prevent it from arising in the first place. Clearly, we need to increase cellular oxygen levels in the body to defeat cancer, and

consuming the above plant nutrients would be enough to achieve this. So why do humans still develop cancer, and why are we unable to cure it? The answer is that the above plant nutrients (the majority at least) are found in leaves, not fruit. Human beings do not appear to have the ability to digest cellulose which would liberate these nutrients from leaves and allow these nutrients to be absorbed by the body.

Condon, R.E., and Telford, G.L. (1991) as well as Williams, R.A. and Myers, P. (1994) mention that the human appendix is both a developmental derivative and evolutionary vestige of the end of the by far larger herbivorous caecum found in our primate ancestors. The caecum is found to be a large, complex gastrointestinal organ in most vertebrates, and is specialized for the digestion of plants. (Kardong, 2002). Although humans have a mixed diet, and are herbivorous, the bacteria in human caeca don't secrete cellulase, the enzyme needed for cellulose degradation and digestion. (Glover & Warwick, 1998).

A large amount of medical research has been focused on the human appendix, however the specific function carried out by the human appendix, if any, is still unclear and unknown. (Williams & Myers, 1994).

What appears to be needed is a mechanism by which humans can degrade cellulose, so that the cellular components contained within plant matter can be better absorbed by the body. This may once have been the function of the human appendix, but if it was, it has now been lost.

One means of replicating this possible lost function of the human appendix is to lyse the cellulose before digestion, to extract the cellular components so that these may be absorbed by the human body. I call this Cellular Extraction Therapy. To do this, plant matter may be boiled in water, so that the heat will cause the cellulose to lyse, releasing the plant nutrients into the water. The boiling time should be kept to a minimum, so that the cellular components released into solution remain largely unaltered. I provide a suggestion for this boiling below:

Place the plant matter (such as spinach, parsley, etc) into a pot of water. Bring the water to boiling, and boil for approximately 10-15 minutes. During this time, the plant matter may be pressed or crushed to assist cellular lysis. After boiling, place the entire solution, including the boiled plant matter, into a glass container. Make certain that the water is now green in colour. If the water appears brown, boiling was carried out for too long, thus the cellular plant components have been changed by heat, hence the solution should be discarded. If the solution is green in colour, leave to stand at room temperature overnight. This is to allow more cellular components to seep from the plant matter into the solution. As a final step to help promote lysis, place the solution back into a pot and bring the solution to boiling point. Immediately pour the solution into a glass container. This solution may be kept refrigerated for two days. I suggest taking two cups of the solution each day, one cup in the morning and one at night. The boiled plant matter (non-

liquid component) may be discarded if desired. A simple alternative to this would be to drink green tea!

This simple boiling and crushing method of plant matter would allow man to access nutrients that only our primitive ancestors would have been able to consume. Mans current way of life excludes such essential, naturally occurring nutrients and plant components, which may explain the high prevalence of many diseases in society today. This simple idea which returns man to a natural diet may effectively treat and cure many of humanities currently untreatable diseases, including Cancer. Many of mans diseases may simply be the result of the fact that we have turned our back on nature, hence our own wellbeing.

I hereby invite both medical and science researchers interested in this work to carry out independent clinical trials to validate the effectiveness of this proposed therapy.

References:

1. Chernomorsky S, Segelman A, Poretz RD (1999). Effect of dietary chlorophyll derivatives on mutagenesis and tumor cell growth. *Teratogenesis Carcinog Mutagen.* 19(5):313-22.
2. Condon, R.E., and Telford, G.L. (1991) "Appendicitis." In : Sabiston Textbook of Surgery: The biological Basis of Modern Surgical practice. Townsend, C.M., editor. Fourteenth edition. W.B. Saunders and Co, Philadelphia, PA. pp. 884-898
3. de Vogel J, Jonker-Termont DS, van Lieshout EM, Katan MB, van der Meer R. (2005). Green vegetables, red meat and colon cancer: chlorophyll prevents the cytotoxic and hyperproliferative effects of haem in rat colon. *Carcinogenesis.* Feb;26(2):387-93.
4. Ebermann R, Alth G, Kreitner M, Kubin A. (1996). Natural products derived from plants as potential drugs for the photodynamic destruction of tumor cells. *J Photochem Photobiol B.* Nov;36(2):95-7.
5. Glover, Warwick (1998). The human veniform appendix. *Technical journal.* Volume 3, Issue 1 :31-38. April 1988.
6. Huang Y, Hickey RP, Yeh JL, Liu D, Dadak A, Young LH, Johnson RS, Giordano FJ. (2004). Cardiac myocyte-specific HIF-1alpha deletion alters vascularization, energy availability, calcium flux, and contractility in the normoxic heart. *FASEB J.* Jul;18(10): 1138-40.
7. Kardong, K.V. (2002). *Vertebrates: Comparative anatomy, function, evolution.* Third edition. McGraw-Hill: New York, NY.
8. Lee WY, Park JH, Kim BS, Han MJ, Hahn BS. (1990). Chlorophyll derivatives (CpD) extracted from silk worm excreta are specifically cytotoxic to tumour cells in vitro. *Yonsei Med J.* Sep;31(3):225-33.
9. Lindenschmidt RC, Tryka AF, Witschi HP. (1986). Inhibition of mouse lung tumor development by hyperoxia. *Cancer Res.* Apr;46(4 pt 2):1994-2000.

10. McCabe, E. (2001). Adapted from two-time Nobel prize winner Otto Warburg's "The prime cause and prevention of Cancer" and his other papers by Ed McCabe. Lecture delivered to the membership of the cancer control society annual meeting, labour day 2001, by Ed McCabe.
11. Otto Warburg, (1966). The Prime Cause and Prevention of Cancer, Lecture delivered to Nobel Laureates on June 30, 1966 at landau, Lake Constance, Germany.
12. Williams, R.A. and Myers, P. (1994). Pathology of the appendix. Chapman and Hall medical: New York, pp. 5.