

Cancer - Biophysicist Point of View

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Last updated July 21, 2004

"Everyone should know that the 'War on Cancer' is largely a fraud." Dr.Linus Pauling, Nobel Laureate

"Intellectually bankrupt, fiscally wasteful and therapeutically useless", said Dr.James Watson, Nobel Laureate when asked about cancer research and the National Cancer Program

Definition of Cancer

There are many different forms of cancer. Their manifestation is a growth of cells and tissues, which differ in various aspects from the surrounding tissue. Cancers occur in all living things. All lifeforms share similar DNA and RNA blueprints and cell physiology. Therefore, the mechanisms for cancer development and methods for cancer treatment are similar.

What is Cancer ?

Cancer cells are very similar to cells of the organism from which they originated and have similar (but not identical) DNA and RNA. This is the reason why they are not very often detected by the immune system, in particular if it is weakened. Cancer cells usually have an increased ability to divide rapidly and their number of divisions is not limited by telomeres on DNA (a counter system to limit number of divisions to 40-60). This can lead to the formation of large masses of tissue and in turn may lead to disruption of bodily functions due to destruction of organs or vital structures.

How is Cancer formed ?

Cancer cells are formed from normal cells due to a modification / mutation of DNA and/or RNA. These modifications / mutations can occur spontaneously (II Law of Thermodynamics - increase of entropy) or they may be induced by other factors such as: nuclear radiation, electromagnetic radiation (microwaves, X-rays, Gamma-rays, Ultraviolet-rays, etc.), viruses and bacteria, parasites (due to tissue inflammation/irritation), heat, chemicals in the air, water and food, mechanical cell-level injury, free radicals, evolution and ageing of DNA and RNA, etc. All these can produce mutations that may start cancer. Cancer can be called therefore "Entropic Disease" since it is associated with the increase of entropy of the organism to the point where the organism cannot correct this itself. External intervention is required to allow the organism to return to an stable entropic state.

Cancer cells are formed continuously in the organism (it is estimated that there are about 10,000 cancer cells at any given time in a healthy person). The question is why some of these result in macroscopic-level cancers and some don't. First, not all damaged cells can multiply and many of them die quickly. Those which have the potential to divide and form cancer are effectively destroyed by the various mechanisms available to the immune system. This process takes place continuously. Therefore cancer develops if the immune system is not working properly and/or the amount of cells produced is too great for the immune system to eliminate. The rate of DNA and RNA mutations can be too high under some conditions such as: unhealthy environment (due to radiation, chemicals, etc.), poor diet (unhealthy cell environment), people with genetic predispositions to mutations and people of advanced age (above 80).

Precursors of Cancer and Cancer Prevention

A weak or non-functioning immune system, poor health, an unhealthy environment and advanced age (over 80) can contribute to cancer. In the majority of people cancer can be prevented with proper lifestyle which consists of a low-entropy diet, exercise, sleep, stress reduction, etc. In most cases cancer develops slowly over many years. With a positive change of lifestyle and healthy environment this trend can be reversed in the majority of cases (probably in 90% -> 95%) - the cancer will shrink and eventually disappear.

Mechanisms responsible for Cancer development

Factors which produce cancer cells are: radiation (such as X-rays, nuclear, microwaves, cosmic, ultrasound, etc.), toxic cell environment, chemicals in the air, water and food, bacteria and viruses. Factors which suppress immune functions are the same factors as above plus poor diet, stress, lack of proper exercise and lack of sufficient rest and sleep.

Traditional Treatment of Cancer

Cancer can be a very scary thing. The survival rates of some cancers is very low and treatments are not very effective (if one uses traditional medicine). On top of that, cancer is demonized as this scary thing which is growing in you and is going to kill you. Many people feel helpless and put blind trust in traditional medicine for treatment. Traditional medicine is very good in detecting and monitoring cancer but it is very poor and ineffective in the treatment of cancer. Detection is good and aided by imaging techniques such as NMR, CT-scan, ultrasound, PET, etc. and many other chemical, genetic, tissue, etc. tests. Below a few conventional medical treatments techniques are mentioned:

Radiation Therapy

Attempts to locally destroy cancer cells with the various types of radiation such as X-ray, Gamma-ray, particle beams, isotopes, ultrasound, etc. Beams of radiation are focused mainly on the cancer growth and doses are calculated to minimize the collateral damage to surrounding tissues, which nevertheless occurs. This kind of treatment increases the entropy of the organism, suppresses the immune system, destroys healthy cells and potentially forms new mutated cells some of which could become cancerous (and possibly more dangerous than original cancer cells).

Chemotherapy

This aims to destroy the cancer cells with various types of chemicals. The substances used are supposed to target mainly the cancer cells (sometimes via direct injection to cancer tissue) and doses are calculated to minimize the collateral damage to surrounding tissues, which nevertheless occurs. This kind of treatment increases the entropy of the organism, suppresses the immune system, forms a toxic cell environment, destroys healthy cells and potentially forms new mutated cells some of which could become cancerous (and more dangerous than original cancer cells).

Surgery

This is another very invasive technique. Underlying logistics is to locally remove cancer cells with as few healthy cells as possible. This in turn should stop any further growth, since there are no cancer cells left in the body. This is a wrong assumption, since it is very difficult to find the exact boundaries of the cancer growth and remove all cells. Besides that, cancer cells can enter the blood stream and lymphatic fluid during an operation and spread to other parts of the body. This kind of treatment also increases the entropy of the organism, suppresses the immune system and destroys healthy cells and organs.

All mentioned above methods are very invasive, destroy healthy cells and suppress the immune system. This approach leads to an increase of entropy of the organism and lowers the chances of recovery from cancer. All these methods are designed to treat symptoms (cancerous growth), not the cause of cancer (non-functioning immune system and factors contributing to cancer cells formation). Since the cause of the cancer is not addressed and treatment is not provided, cancer will in majority of cases spread and recur (the 5-year survival rate quoted by American Cancer Society is 63% and it is much lower for longer periods of time). Very often cancer patients in hospitals are consuming poor quality food with hydrogenated fats, which are very unhealthy and dangerous. This only illustrates that an holistic approach is not considered or followed. Cancer treatment is a good money making machine and patients' welfare is largely ignored.

New Research in Cancer Treatment

Genetically engineered bacteria and viruses

Some new promising research uses genetically engineered bacteria and viruses to infect and destroy cancer cells. This could be useful when cancer is already advanced and there are large masses of cancer cells. The potential drawback of these methods is the generation of large amounts of toxins from dying cancer cells, which in turn can suppress the immune system or even kill the patient. Also bacteria and viruses very often mutate which in turn can lead to infection and attack on healthy, non-cancerous cells.

Anti-cancer vaccines

Anti-cancer vaccines or even custom-made anti-cancer vaccines for a particular patient and cancer type are also a very promising line of research. By providing fragments of cancer cells to the immune system, one can potentially get the immune system response to destroy live cancer cells.

Cancer markers

Another promising line of research is related to chemical substances which could be used to mark cancer cells. This in turn will allow easier recognition of these cells by the immune system.

Cancer growth retarders / inhibitors

This line of research is related to the use of chemical substances which could retard / inhibit the growth of cancer cells. An interesting research topics are the substances blocking activity of telomerase, the enzyme responsible for the management/elongation of telomeres. Telomerase is found in high concentrations in 80% of tumors and allows tumor cells to gain "immortality" by removing restrictions on the number of cell divisions. This enzyme may also be useful in extending the lifespan of healthy cells and in turn extend the lifespan of the organism (cancer cells and their growth may hold much valuable information about fountain of youth and immortality).

All the above mentioned methods show some promise. However these methods by themselves do not provide reliable cancer treatment. It is possible that some of them in conjunction with the non-traditional treatment of cancer (listed below) will become the standard cancer treatment, in the 21st or 22nd century.

Non-traditional Treatment of Cancer

The development of cancer usually takes many years. Therefore, full treatment also can take several months or years (one has to be patient). What is important is to reverse the process in order to stop and reverse cancerous growth. There are no silver bullets to accomplish this task. People have to do all things right in order to have the best chance of reversing the process. In the majority of cases (probably in 90-95%) total reversal of cancer is possible.

Here are major factors contributing to health and cancer reversal:

- o the diet should be low-entropy, organic raw food-based. Acidity and pH balance should be monitored (with a pH meter or lacmus/litmus paper) since consumption of some foods can increase acidity (for example sugars) which promotes cancer and creates a toxic and cell-damaging environment.
- o chemicals should be eliminated from your home. Dishes could be washed with just warm water. Most of the things around the house can be cleaned with warm water, soap and vinegar. Chemicals should be eliminated also from your backyard and garden (such as pesticides, herbicides, etc.).
- o don't keep things totally sterile - small amounts of viruses and bacteria are vital to good health, since they keep your immune system "informed" about what is out there and they help to build better immunity. Bacteria and viruses are an integral part of the environment and the ecosystem and they play an essential role in evolution (exchange and modification of genes) and natural selection (testing of "new genetic designs" and elimination of genetic errors).
- o a proper amount of sleep in a comfortable bed with no metal parts (they change electromagnetic fields around the body) and in a well-ventilated, dark and quiet room.
- o avoidance of radiation from underground water and "Swiss Net" which are claimed to suppress or even block the immune system (some people claim it to be EMF at frequency 1420 MHz or wavelength 21 cm). Diviners (people who can find underground water with a divining rod) can find this radiation, since they are highly-sensitive bio-detectors of this low-level energy.
- o a person should lower the stress level and increase the level of happiness and satisfaction (stress produces a lot of harmful chemicals and free radicals).
- o a person should be involved in non-strenuous exercise such as walking, biking and swimming (strenuous exercise suppresses immune system probably due to free radicals and tissue damage).
- o a person should eliminate smoking, alcohol, an unhealthy environment (radiation from various sources such as cell phones, microwave ovens, cell antennas, X-rays, isotopes, chemicals, etc.). Even flying can be dangerous due to ionizing, cell-destroying cosmic radiation at high altitudes and pesticides often sprayed in the cabin to kill insects (sometimes during the flight).
- o various things such as special herbs, specific food supplements and massage, relaxation and meditation techniques, etc. can be used to boost the immune system.

Resources on WWW:

There are many resources available on the internet in regards to alternative treatments and raw food diets. One has to be careful however, since there are many unscrupulous individuals who are trying to exploit desperate people. Here are several websites which contain useful information:

Low Entropy Diet by Dr. Marek Roland <http://www.digital-recordings.com/publ/publifef.html>

Website of world expert on fats Dr. Udo Erasmus <http://www.udoerasmus.com>

Holistic Health for People and Animals <http://www.shirleys-wellness-cafe.com>

Educating instead of Medicating <http://www.curezone.com>