

Application of Revici Chemotherapy in the Treatment of Cancer

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Introduction

Nutritional Medicine has a great future in the treatment of the cancer process, not only in prevention but in cure. The development of principles around investigation of the cancer environment, measurement of therapeutic effect and understanding the ways in which these modalities work are very important to this process.

This paper looks at early observations and theories put forward by Revici. It discusses the concept of catabolic and anabolic process in association with alkalinity and acidity, the balance of anabolic and catabolic processes at both the cellular and tissue level and how to ascertain this.

In treatment of cancer using nutritional and metabolic processes, one of the very first minerals is potassium. Potassium movement in and out of the cell changes the cell potential and the biophysics of the cell. Chemotherapy and radiotherapy tend to lower the intracellular potassium, lowering the overall polarisation. In the short term this process may be desirable, however with continued monitoring it has been shown that this condition can persist. Cancerous cells tend to thrive in an environment that is persistently high in potassium or persistently low. Therefore regimes to aid the organism rid itself of cancer needs to have the ability in part to change potassium levels in the cell and in doing so change the biophysics of the cell. This process can be activated with selenium products and alcohols. Selenium can lower the intracellular potassium, and Heptanol can increase the intracellular potassium, thereby changing the environment and decreasing the ability of cancer to create its own steady state.

This paper finishes with clinical examples of the process showing how Iron levels, Ferritin, Haemoglobin can be influenced by the shifts of potassium in and out of the cell.

Emmanuel Revici

Emmanuel Revici had been active since 1921 as an independent research scientist and physician. He lived in New York and died in

1998. Although he was primarily associated with cancer therapies, his discoveries in the area of microbiology, radiotherapy and biochemistry, in my view, set a whole new way of looking at the pathophysiology of cancer.

Today what I'd like to discuss is the area of my own work with cancer. In particular with reference to Dr Revici's ideas, insights and medicines in the area of cancer and tumour management. In working with cancer one often works with whoever comes and in whatever condition that person actually presents with. Proper monitoring, understanding and working with that patient are very important. Not only are you working with their life spirit, and their emotional world, you are also working with their physiology and biochemistry in such a way as to try and slow the process down, reduce the pain and stop the process of cancer moving within that person's body. This gives the person a period of time to re-evaluate their life situation. Time to think, time to feel, to mobilise the patients' resources on all levels with a long term goal of tumour shrinkage and the restoration of the patient's health.

Too much of cancer treatment has been ad-hoc for too long. Researchers in the area of cancer such as Revici, Rife and Enderlien have each developed a unique approach. Their early work and observations have led them to follow different paths to that of mainstream science. The observations that they have been able to reproduce have led to unique ways of approaching cancer therapy. The ability then to measure outcomes and monitor the administration of therapy has been enabled by the initial measuring tools.

Revici's early observations in terminal cancer patients around the nature and timing of their pain led him to develop a hypothesis of two types of cancer pain. Some patients experienced their worst pain in the morning after a long fast prior to food. They reported a gradual reduction in pain over the day and a decrease in pain after eating. The second group of patients found fasting decreased their pain and their pain was exacerbated by eating and often increased during the day. The first type of pain he described as acid pain; this pain he postulated was reduced by eating because of

the alkaline tide, i.e., the soaking up of hydrogen ions by food in the stomach, thus creating a general alkalisiation of the body. The second type of pain he described as alkaline, being increased by the alkalising effect of the alkaline tide.

To test this theory he gave the patient with acid pain sodium bicarbonate, an alkalisating agent, and found a reduction in the pain. With the alkaline pain patient, he found that sodium bicarbonate increased their pain. However phosphoric acid 50% solution 1.5cc caused a reduction in pain. What followed these initial observations was extensive research in animals and in clinical trials over 40 years culminating in the publishing of "Research in Physiopathology as a Basis of Guided Chemotherapy".

To understand the process further the body can be divided into two compartments: the intracellular and extracellular. Movements in the pH at the intracellular level can be monitored and adjusted using agents that work at this level. Likewise movements at the extracellular level can be monitored and adjusted using agents that work at this level. To measure the pH shifts at these levels monitoring of different parameters is required. Urine pH, Specific Gravity along with the rise and fall of the Eosinophils give indications as to whether the extracellular compartment is acid or alkaline. Whole blood potassium is used to monitor the acid or alkaline nature at the intracellular level.

Revic refined this theory of acid and alkaline and used anabolic and catabolic to describe these variances. He used anabolic to describe the acid state and catabolic as the alkaline state.

For the purpose of this paper I would like to focus on the intracellular compartment and the use of selenium and heptanol. Revic was able to show selenium to be a catabolising agent, and heptanol an anabolising agent. These agents were shown to have strong and lasting anti-cancer activity along with their anabolising and catabolising effects. He used among other things, levels and changes in whole blood potassium to decide which agent to use, and how to prescribe and vary the dose.

Intracellular	Acid Anabolic	Acid Anabolic	Alkaline Catabolic	Alkaline Catabolic
Extracellular	Acid Anabolic	Alkaline Catabolic	Acid Anabolic	Alkaline Catabolic

Potassium

In the process of differentiation of anabolic (acid) and catabolic (alkali) off balances, Revic looked at many ways to ensure and define this at the cellular level. In his book "Research in Physiopathology as a Basis of Guided Chemotherapy" he discusses the role of potassium, as a key player in the overall maintenance of these off balances.

Potassium is mainly confined to the intracellular compartment. From a practical point of view, total blood potassium rather than intracellular measurements of potassium can be used.

When looking at the total blood potassium and extracellular potassium, four possible scenarios exist (Table 1, opposite).

It is therefore impossible to predict total body potassium from extracellular potassium. Revic describes a high total potassium as an anabolic (or Type A off balance) and a low total potassium as catabolic (Type D off balance) and suggests this is the best indicator for deciding the off balance at a cellular level. We set out to measure total potassium in a group of controls and after 50 random controls, found a mean of 33.8mEq. Revic puts this figure at 38mEq. However in review, this figure can change with differing methods. The observations that have been made since working with this parameter have been interesting.

In general (although there have been a couple of exceptions) people who have had radio or chemotherapy have a low overall potassium, and this is usually associated with a low extracellular potassium. These people are potassium deficient and also tend towards a catabolic state. In our clinic, since using this parameter, we have found that more people presenting with cancer exhibit a catabolic rather than anabolic state. We have also found that moving the whole blood potassium with methods I will describe, can have a corresponding and sometimes dramatic effect on serum Iron, Ferritin and Haemoglobin, normalising these parameters.

Revic Treatments

The ability to define the off balance at the cellular level led Revic to experiment with various substances that could altar the off

balance. His work led him to eventually look at two substances that not only would alter the existing off balance but also reduce tumours in that particular off balance. The first is Selenium.

Selenium

Selenium was originally used in cancer therapy as early as 1911 by August Von Wassermann. Working with animals, Von Wassermann was able with selenium compounds to cause liquefaction and necrosis of tumours. This was hailed as a great success. However Von Wassermann's compounds were too toxic and thus could not be employed in the treatment of human cancers.

Dr Revici started to explore selenium in its many forms looking to devise a non toxic but effective treatment for anabolic cancers. Through his own research and theorising he postulated that selenium was a catabolising substance along with oxygen and sulphur. He conducted numerous experiments in his institute and deserves to be credited with discovering pharmacologically active selenium products with very low toxicity.

The criterion he uses for the use of selenium in cancer is whole blood potassium. Selenium is used in anabolic conditions, i.e. when whole blood potassium is above the mean: in our case 33.8Eq. Its use in catabolic conditions should be closely monitored as it can lower the whole blood potassium and accelerate the growth of the tumour. The Revici compound used extensively in research was Heptyldiselenide, a lipid with a double selenium as a polar group. Doses as low as 4mcg to 100mg per day were used. Revici reports good results with this and in the cases to follow I will detail some results we have achieved.

Heptanol

According to Revici a relative predominance of unsaturated fatty acids leads to an electrolyte imbalance within the cell and an alkaline environment in tumour tissues (Catabolic). In the opposite case, a predominance of sterols at the cell membrane leads to a reduction in cell membrane permeability with associated lack of oxygen and other micronutrients along with the build-up of lactic acid. This leads to an anabolic condition.

In dealing with the catabolic condition, Revici researched the use of fatty acid blocking or

chelating agents and he found the higher carbon alcohols contained these properties.

Butanol seemed to have immediate effects in alkaline pain and seemed to work at the extracellular level. He therefore developed a number of products with Heptanol as a base. We have seen in our own work the anti-tumour effects of Heptanol. It is used when the whole blood potassium is in the low range and the system at the cellular level is considered catabolic.

Case Studies

Case One

Patient History: Insurance agent, male, 53 years

Sideroblastic anaemia, generalised aches, pains, lethargy, malaise and myalgia. I had been working with him for three years with limited success. His pain and myalgia were progressively getting worse.

Finally I looked at his potassium and decided to use selenium as his sole medication. At the time when I first started treating him, I didn't have the whole blood potassium available. But because every other modality had failed and potassium was 3.9 (mean 4.5) I assumed that intracellular potassium was high. I started him on 900mcg of sodium selenite. Three weeks later he came back with a dramatic improvement. All his pain had gone, and his energy had returned to pre-illness levels.

I continued on this dose and organised whole blood potassium (now available) along with serum potassium. His serum potassium was 4.2 and whole blood potassium was 32.6 indicating that he had been anabolic and was moving towards a catabolic state at the intracellular level. I decreased the sodium selenite to 300mcg, and checked his serum potassium again in the next month. It was 4.7 and whole blood potassium was 29.5 indicating still further movement to a catabolic state. He continued to maintain improvement but said he was not as good as he had been in the first month of treatment. I stopped selenium and planned to review him in one month. An interesting observation in this case was the increase in Hb. This gentleman's Hb had stayed at 114 for two years. With the decrease in potassium the Hb increased to 121 (normal 125 – 152).

This patient is a good example of the movement of potassium out of the cell under

the influence of selenium. Because he had been in a deteriorating state until the initial treatment with selenium and because selenium was the only medication used and he made no other changes in his life, then selenium is the most likely activator of the shift. The corresponding fall in whole blood potassium with a rise in extracellular potassium indicated (according to Revici) a movement to a catabolic state within the cell. Maintenance of this was available with a reduced dose of selenium.

Case Two

Patient History: Female 42 years old

This patient presented in November 1994. Her history dated back to 1993 when she had a hysterectomy to remove fibroids. She was at this time diagnosed with cervical cancer showing deep cervical infiltration. Her lymph nodes tested negative. She elected post-operatively, not to have radiotherapy.

In October 1994, she developed abnormal swelling that was diagnosed as malignant ascites. A subsequent CT scan showed secondaries in her ovaries. She had a second operation and was noted at this time to have metastatic peritoneal seeding. Radiotherapy was not offered due to the degree of the spread. She was sent home with no further treatment being offered.

I started her on a program of ozone and vitamin C therapy in November 1994. I noted that she had a raised Ferritin of 240 (normal being 15–200).

In January 1995, I tested the Ferritin again and it had increased to 262 with a drop in serum iron at 6 (normal 11-27) where previously this had been normal. I have found that the Iron studies are good indicators of tumour activity and growth. The increasing abnormalities alerted me to progression of her disease state. She was complaining of fatigue and had mild ascites with some abdominal pain.

Intravenous administration of ozone and Vitamin C was stopped. I started her on selenium injections (Heptyldiselenide) as the only form of treatment at a dose of 2mls 3x/wk. Within two weeks she showed clinical improvement with a decrease in ascites and no pain. By February 1995, she felt fairly fit and was keen to return to work. Full iron studies in February 1995 showed normal iron levels with serum iron 14 (11-27) and ferritin 177 (15-

200). Since March 1995, she has been on oral selenium and one selenium injection per week. She has been symptom free since that time. Full abdominal CT scans and chest X-rays in July 1995 were normal. Iron studies remain normal and whole blood potassium is 34.5 (mean 33.8) indicating that selenium remains the treatment of choice.

Case Three

Patient History: Female, 77 years old

This patient had a primary Ca removed in 1989. She was seen in February 1995 and treated with radiotherapy for a recurrence in her sacral region. It was noted to be a large mass. She was first seen by myself following radiotherapy and was put on a nutritional program along with intravenous therapy of ozone and Vitamin C.

Her CEA dropped dramatically after radiotherapy but subsequently started to climb. She was started on selenium because her extracellular potassium was low, and it was assumed that her intracellular potassium was high. Her CEA after 6 weeks showed a dramatic rise. Selenium injections were stopped and heptanol injections were commenced. A month later she was checked again and her CEA still showed a rise. Oral heptanol drops were commenced and a month later the CEA had risen again to 135.7. I was quite puzzled and discussed the situation with her daughter. Her daughter rang one day and said that her mother was still taking oral selenium at 400mcg/day asking if this could be having an effect. The selenium was stopped and the heptanol continued at the same dose. Two weeks later her CEA showed a fall to 115.5.

This case indicates that care must be taken with selenium. It can't be used in all cases and in this instance, when the whole blood potassium testing became available, it was seen that this lady had a potassium deficiency; she was not anabolic. This case shows that the only accurate way to define whether the cellular level is Anabolic or Catabolic is to measure the whole blood potassium. Extracellular potassium can be misleading as it could indicate potassium deficiency or an Anabolic state. The appropriate treatment in this case was Heptanol and this alone was able to start reducing the CEA.

Case Four

Patient History: Female, 19 years

This patient was diagnosed with Acute Myeloid Leukaemia in April 1995. She was treated with one course of chemotherapy that put her into remission. It was suggested that she continue on a second course of chemotherapy; however she elected to pursue a nutritional approach.

When first seen by myself, she was weak and pale. She was started on a course of nutritional therapy along with intravenous vitamin C. Her Hb of 96 rose slowly over a period of 2 ½ months. Although the ferritin had dropped dramatically, the potassium remained very low – below 30. She was given heptanol by injection 3x weekly.

After two weeks her blood parameters were checked again. She reported over this time a dramatic increase in her energy levels. Potassium suddenly jumped from 28.8 to 36.6, switching her from a Catabolic to an Anabolic state. Associated with this was an increase in haemoglobin of 109 to 138 in the space of two weeks.

Heptanol was stopped at this point and ozone and vitamin C were discontinued. She was commenced on a nutritional program used for Anabolic cancers. Recent tests show no change from that July.

This case illustrates a connection between potassium levels and haematopoietic function. The rise in potassium shows a corresponding and dramatic increase in haemoglobin. Heptanol seemed to be the active agent in raising the whole blood potassium.

Case Five

Patient History

This case relates to a 28 year old male who in 1988 was diagnosed with Ependymoma in his right ventricle. 25% was removed with surgery, and radiotherapy gave a dramatic further reduction. However in 1991, MRI showed the tumour was growing again. He was started on magnetic therapy. This yielded an improvement. However this only lasted six months. Subsequently the tumour slowly grew.

He presented to me in May 1994. Initially I treated him with intravenous therapy of ozone and vitamin C. He was at the time drowsy, vague and incontinent.

No improvement was noted in his condition. A CT scan was taken in November 1994 prior to commencing him on Dr Revici's therapy. He was commenced on Heptyldiselenide injections 3x weekly. By January 1995, he showed marked improvement. He was fully continent, less drowsy with improved memory function. By February 1995 he was able to drive his car to commute to our clinic for treatment. His selenium injections were reduced to once a week and he was placed on oral selenium supplement. A CT scan of his brain in March 1995 confirmed tumour shrinkage.

He continues to improve on this regime. Since whole blood potassium levels have been available, we have measured this and found that his potassium is 34.7 (mean 33.8) confirming his off balance at the cellular level is Anabolic and selenium is the treatment of choice. A CT scan in July showed further reduction in the tumour.

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