

Cesium Therapy in Cancer Patients

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SARTORI, H E *Cesium therapy in cancer patients* PHARMACOL BIOCHEM BEHAV 21: Suppl 1, 11-13, 1984 —The effect of cesium therapy on various cancers is reported. A total of 50 patients were treated over a 3 year period with CsCl. The majority of the patients have been unresponsive to previous maximal modalities of cancer treatment and were considered terminal cases. The Cs-treatment consisted of CsCl in addition to some vitamins, minerals, chelating agents and salts of selenium, potassium and magnesium. In addition, a special diet was also instituted. There was an impressive 50% recovery of various cancers, i.e., cancer of unknown primary, breast, colon, prostate, pancreas, lung, liver, lymphoma, ewing sarcoma of the pelvis and adeno-cancer of the gallbladder, by the Cs-therapy employed. There was a 26% and 24% death within the initial 2 weeks and 12 months of treatment, respectively. A consistent finding in these patients was the disappearance of pain within the initial 3 days of Cs-treatment. The small number of autopsies made showed the absence of cancer cells in most cases and the clinical impression indicates a remarkably successful outcome of treatment.

Cancer Cesium Diet Human Minerals Vitamins

CERTAIN foods contain biologically active compounds and/or ingredients, i.e., vitamins, inorganic salts, organic compounds, essential fatty acids, minerals, and chelating agents which may either precipitate or prevent cancer development. The relationship between dietary consumption and cancer development is not clear and further investigation continues [5]. Noteworthy is the report [3] on the presence of high levels of cesium [Cs] and rubidium (Rb) in food along with availability of various supportive compounds as vitamins A and C, along with zinc and selenium in diet of populations residing in areas with low incidence of cancer, e.g., the Hopi Indian territory in Arizona, the Hunza area in North Pakistan, and the volcanic regions of Brazil. The diet of these populations is similar to the nutritive requirements for the high pH cancer therapy developed by Brewer [2] subsequent series of physical experiments with cancer cells. In these tests the presence of Cs⁺ or Rb⁺ in the adjacent fluids of the tumor cell is believed to raise the pH of the cancer cell where cell mitosis will cease resulting in reduction of life span of the cancer cell. The introduction of such alkaline pH by these alkali salts may also neutralize the acidic and toxic material within the cancer cell. This report combines the use of CsCl with various supportive agents, which have been hypothesized both to enhance the entry of Cs⁺ into the cancer cell and to stimulate the immune response, in the treatment of various cancers.

METHOD

Treatment was performed on 50 patients during the last three years at Life Science Universal Medical Center Clinics in Rockville, MD and in Washington, DC. All patients were terminal subjects with generalized metastatic disease. Forty-seven of the 50 patients studied had received maximal modalities of treatment, i.e., surgery, radiation and various chemotherapy, before the metabolic Cs-treatment was in-

stituted. Three patients were comatose and 14 of the patients were considered terminal due to previous treatments outcome and cancer complications. The type of cancer of the patients studied and their number is detailed in Table 1.

The Cs-treatment was given in conjunction of other supportive compounds and under diet control in addition to utilization of specific compounds to produce adequate circulation and oxygenation. According to individual cases CsCl was given at daily dosages of 6 to 9 g, in 3 equally divided doses, with vitamin A-emulsion (100,000 to 300,000 U), vitamin C (4 to 30 g), zinc (80 to 100 mg), selenium (600 to 1,200 mcg) and amygdalin (1,500 mg) in addition to other supplementations according to the specific needs of the patient. The diet consisted mainly of whole grains, vegetables, linolenic acid rich oils (linseed, walnut, soy, wheat germ) and other supplemental food. To increase efficiency of the treatment and improve the circulation and oxygenation, the patients received the chelating agent EDTA, dimethylsulfoxide (DMSO) and also a combination of vitamins, K and Mg salts.

RESULTS

Table 1 summarizes the results of the Cs-treatment of 50 cancer patients studied over 3 years. They had generalized metastatic disease, except for 3 patients. Initial death occurrences for the initial 2 week treatment was in the same order and magnitude of these recorded for the 12 month period. The percent of survival of breast, colon, prostate, pancreas and lung cancer accounted to approximately 50% which was higher than that noted for liver cancer and the lymphoma patients treated. An overall 50% recovery from cancer by the Cs-therapy was determined in the 50 patients treated. Data from the autopsy made indicated the absence of tumors in patients dying within 14 days of the Cs-treatment. One of the most striking effects of the treatment was the disappearance

TABLE 1
THE EFFECT OF CSCL TREATMENT REGIMENS ON VARIOUS ADVANCED TYPES OF
CANCER IN MAN

Tumor	(n)	Morbidity Time Post Therapy		Number of Survivals
		14 days	12 month	
Breast	(10)	3*†	2	5
Unknown primary	(8)	2*	2	4
Colon	(9)	2	2	5
Prostate	(6)	1*	2	3
Pancreas	(4)	1	1	2
Lung	(5)	1*	1	3
Liver	(3)	1	1	1
Lymphoma	(3)	1*	—	2
Ewing Sarcoma Pelvis	(1)	—	1	—
Adeno-cancer of Gallbladder	(1)	1	—	—
Total Cases	(50)	13	12	25

*An autopsy was performed on one patient of each group which did not indicate the presence of cancer

†One case of breast cancer died due to traumatic fracture of the neck

of pain in all patients within 1 to 3 days after initiation of the Cs-therapy

These studies were performed under my direction, initiated in April, 1981. Twenty-eight patients were initially treated with CsCl between April, 1981 to October, 1982. They were subjected to various cancer therapies, e.g., surgery, radiation and chemotherapy, and were considered terminal cases with general metastatic disease except for 3 patients who were not previously treated. Three patients were comatose at the time of the Cs treatment. Thirteen patients died within less than 2 weeks of treatment. Each patient showed a reduction in tumor mass by the Cs-treatment. Of the breast cancer patients, the most impressive effect was seen in a female patient who was comatose at the beginning of the Cs-treatment and was considered a terminal case. The Cs-therapy, with other ingredients used, was immediately instituted by the nasogastric route because there was no cooperation from the patient. The daily CsCl dose given amounted to 30 g, 10 g given 3 times daily. The patient was able to leave after 5 days of treatment. However, the patient's fall on the floor resulted in complications, i.e., fracture of the neck, and death. The autopsy revealed that the cancer metastasis had essentially eaten away her hip bone causing this tragic accident. The autopsy performed also showed the presence of very little cancer tissue.

The next most frequent cancer treated was of unknown primary. Treatment of 8 cases showed a death rate of 2 within 14 days of treatment and an additional 2 deaths within 12 months while 4 of the patients are still living. In one case, an autopsy was made in a patient after one week of Cs-treatment and showed a complete disappearance of the cancer. There were 7 cases of colon cancer patients who were treated with CsCl. Two of these patients died within 14 days, one of these patients had previous massive chemotherapy, and little time was available to restore her metabolic condition. The previously existing infiltration of

the abdominal wall disappeared. However, no consent was given for an autopsy.

In one lymphoma case the patient displayed an unusual large abdomen which was hard and he weighed approximately 250 pounds. This massively enlarged abdomen began to decline in volume, i.e., a loss of approximately 120 pounds of body weight was noted after 3 months of the Cs-therapy. The spleen which was originally maximally enlarged and reaching into the pelvis was reduced to almost normal size. The liver position was down to about the level of the umbilicus and was also reduced to normal size in 3 months. The patient is still living after 3 years after his discharge. Unfortunately, there is no follow-up on this patient and he is being maintained on chemotherapy.

DISCUSSION

The results presented demonstrate the rate of efficacy of CsCl in cancer therapy. The total 50 cancer cases studied show an impressive 50% survival rate. This confirms the work of Messiha reported in these proceedings showing that the higher the dose it is, the more effective it seems to be. The autopsy obtained from the patient whose death was attributed to traumatic fracture of the neck, indicated that cancer has been initially further advanced resulting in bone destruction. However, the absence of cancer after the massive CsCl dose used in this case is demonstrable of the Cs-therapy. It appears that both dosage, i.e., as much as 30 g/day, and route of drug administration, i.e., nasogastric pathway, might have contributed to the patient's rapid recovery. It should be noted, however, that CsCl dose regimens should not exceed 20 to 40 g due to side effects, mainly nausea, and diarrhea. The author's personal experience with CsCl after an acute dose of 40 g CsCl indicates that extensive nausea and paresthesia around the mouth are the major side effects. This is probably due to K depletion. The usual dose

used in the clinic ranges from 2 to 3 g given by mouth 3 times daily. At a latter time, at which time there is no indication of cancer presence, the CsCl dosage will be reduced to a preventative dose between 0.5 to 1 g a day

The lymphoma case presented shows that CsCl efficiently reduced massive enlargements of spleen and liver as well as maximal ascites, causing an abdominal configuration of a tight, hard hemisphere, to almost normalize after 3 months of therapy. This period of time was required to eliminate such a massive volume resulting in the reduction of the body weight noted.

The clinical efficacy of CsCl high pH metabolic therapy is best demonstrated by a recent case of primary liver cancer (not included in the 50 cases reported in this study). The patient was a 39 year old female teacher who was terminal. She was brought on a stretcher on April 25, 1984 with a large liver tumor extending approximately 3 cm below the umbilical level. The treatment was then immediately instituted. This consisted of administration of CsCl, β -carotin, vitamin C, Zn, Se, Mn, Cr and K salts by the oral route in addition to a concomitant massive IV doses of ascorbate, K, Mg, Zn, Cu, Mn, Cr salts, B-complex vitamins, folic acid, DMSO and heparin. After 5 consecutive treatment regimens EDTA was introduced to the therapy and the minerals present in the IV solution were discontinued. On May 10, 1984, the patient was discharged, returned home walking without assistance and displaying a pleasant smile on her face. The liver tumor had shrunk to 5 cm above the umbilicus. The determination of alphafetoprotein (AFP), a specific marker for liver cancer, rare embryonal cancer and teratomas, decreased from unusual high value of 39,000 units, compared to normal levels of 13 units, measured before initiation of Cs-therapy, to 5,000 units obtained on last day of treatment.

The mechanism of action of Cs in cancer has been little studied. Both Cs^+ and Rb^+ can specifically enter the cancer cells and embryonic cells, but not normal adult cells as has been demonstrated by Brewer [2]. The cancer cells contain high amounts of hydrogen ions rendering them acidic and they also contain high Na^+ levels than found in normal cells. If Cs^+ or Rb^+ can enter the cancer cells then the pH increases from as low as 5.5 to over pH 7.0. At a pH of 7.6 the cancer cell division will stop at a pH of 8.0 to 8.5 the life span of it is considerably shortened (only hours). In one case, the author has observed the shrinkage of metastases of breast cancer one hour after Cs-treatment. Two days later wrinkles of the skin appeared where the tumor was present. In another case of a colon cancer with massive metastasis, of massive infiltration of the abdominal wall, liver and other tissues, seemed to have been reduced within 24 hr and continuing rapidly until the demise of the patient on the 14th day of the Cs-treatment.

The uric acid levels measured at the onset of treatment was approximately 3.5 units which was increased to over 20

units suggesting massive breakdowns of DNA, which produces the uric acid output. Therefore, destruction of nuclear acids, as reflected by a significant rise in the uric acid, may be used as a predictive measurement for treatment outcome. The failure of uric acid elevation may be indicative of lack of destruction of cancer cells. This has proven to be a very consistent finding in our clinic.

There are certain factors which may enhance the Cs-therapy. The Cs-penetration into the cancer cell can be increased by the following three methods: 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 (amygdalin, Laetrile®, mandelonitrile, prunasin, ficin, cassivin), by selenium oxide, an electron donor radical, or 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). The third method attempts to improve the circulation to the tumor and facilitate the destruction of cross-linkages in the mucoid and fibrinous substances around the cancer cell. This can be achieved by chelation therapy, i.e., the use of EDTA as has been shown by Blumer [1] who reported on the reduction of cancer incidence by 90% by chelating patients (an average of 15 chelations in 8 years). This approach also reduced cardiovascular disease by 50%. Other chelating agents can be also used. Moreover, the use of β -carotene will lead to decomposition of blocking mucoid proteins mediated by electrical charges, also, heparin, which acts through electrical charges, will inactivate the immune repelling and immune binding capacities of the blocking mucoid proteins. These approaches will hinder cancer growth and they are virtually atoxic.

It should be noted that certain behavioral characteristics "the cancer personality" of the cancer patient may interfere in any projected treatment modality. This has been reported by Lawrence LeShan [4] in his book entitled "You Can Fight for Your Life". His studies suggested that cancer patients seeking treatment, e.g., chemotherapy, radiation or surgery, are probably motivated by a covert desire for death. For example, statements such as, "rather than undergoing any of those treatments, I would rather die in peace," or "I would never undergo any of those treatments or let anyone of my family undergo them because the effectiveness is unproven and the damage that is done with any of those treatments is higher than the effects," are often expressed. Thus, both chemotherapy and lifestyle changes may contribute to an effective therapy.

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REFERENCES

- Blumer, W and T. H. Reich. Leaded gasoline. A chase of cancer. *Environ Intern* 3: 465-471, 1980
- Brewer, K. A. Mechanism of carcinogenesis. Comments on therapy. *J Int Acad Prev Med* 5: 29-53, 1979
- Galloway, R. D., R. Giauque and F. M. Costa. Superior mineral content of some American Indian Foods in comparison to Federal counterpart conated commodities. *Ecol Food Nutr* : 203-208, 1974
- Le Shan, L. *You Can Fight For Your Life, Emotional Factors in the Treatment of Cancer*. New York: M. Evans and Comp., 1977
- Special Report. Food and cancer. *Nutr Rev* 24: 313-323, 1978