Primary Cancer

articles by
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Genetic Repair Including "IRIDODIAL" An Insect Derived Genetic Repair Factor of Important Antimalignant Effect.

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Editor, Raum & Zeit (Germany):

"Even though large, specialized hospitals have not acknowledged the fact, it is nevertheless true that EXTRA-ORDINARILY EXPENSIVE RADIOTHERAPY AND CHEMOTHERAPIES ARE, WITHOUT A DOUBT, A FAILURE". The Internationally recognized oncologist Dr. Hans A. Nieper from Hannover, Germany reports in this article, not only on the presently known therapy methods, but introduces a promising therapeutic possibility in conquering cancer, namely the application of active substances from insects for the repair of genetic information which got lost in cancer cells." (Editor)

In 1973 in the Silbersee Hospital in Hannover, Germany, a so-called spontaneous healing of an advanced breast cancer was witnessed. The healing process in itself was very dramatic. With the help of monies used from a research grant given by the Volkswagen Automobile Company the cancer patient was given extensive tests. The results obtained seemed to show that the cause of the drastic disappearance of wide spread cancer metastasis throughout the bones of the patient, had its foundation in the ability of the body to repair a derailed genetic system in the cancer cells and not with the usual "immune system" response, as with people responding to a bacterial or viral infection.

RESISTANCE AND IMMUNE SYSTEM RESPONSE

In the past we have made a definite destinction between

the body's ability to repair itself and the body's resistance on one hand and the function of the immune system response on the other hand. In contrast to this, the immune response mechanism will be activated immediately at the onset of an illness, the presence of an elevated temperature or by active or passive inoculations (mobilization of the defense system like "calling out the military"). Of course there are also intermediate forms of defense mechanisms, the mechanism triggering the activation of lymph cells being one such example. In principle one has to draw a definite line between repair (resistance) and immune response.

During an activated immune response, the anti-bodies, which consist of peptides in various sizes, are the actual instruments fighting the external bacterial and viral invaders. These peptides also take action against cell membrane structures. In contrast the tools for the inner repair system of the cell are formed quite differently. Steroid and chinoid structures have priority in the inner cell repair system, while plasma peptides also get involved.

There are over one hundred fifty chemical structures presently known that possess reparative or resistance-stimulating abilities against degenerated cells, cancer cells, damaged cells and certain big "viruses", especially the herpes-type virus.

The chromosomal genetic systems of the human cell contain approximately two billion base pairs. As you can see we are dealing with a computer that has the extremely high capacity of 2 Billion bits. The largest part of available and stored information remains secured through a sort of sealing and locking mechanism. Only a small amount of the stored information of genetic possibilities is permitted to be released. Because of the strict regulation of the genetic system, the preservation of the formation of type and function of the genes is pre-programmed and secure. It appears that the genetic system has its own special watchdog genes responsible to maintain the proper order.

MISINFORMATION

For various reasons, previously secure gene systems

will begin to release information pertaining to the whole cell, which eventually may lead to chaos. Creating in stages, depending on the frequency of the unsolicited genetic information, a cancer cell can be formed and out of that cancer cell a malignant tumor or serious blood disease. One calls the gene responsible for causing such chaos "oncogenic", after a definition established by Peter Duesberg of Berkeley, CA. Another world renown scientist and oncology researcher is Dr. Vogt of Los Angeles, who is also of German descent like Peter Duesberg.

One has to mention that there are various other specific irregularities. In addition to the oncogenic genes for instance, the lipids of the mitochondrial membrane in the cell can change into malignant lipids and be responsible for the formation of cancer (Kosaki's specific 'Malignolipin').

In principle, the big problem is not actually the appearance of the oncogenic gene in the formation of the cancer cell, but a faulty locking or sealing mechanism. This mechanism is essential to keep the oncogenic genes latent and ineffective. Because of this attribute oncogenic "arrest" or "anti-oncogenic" genes are attracting special interest.

GENETIC REPARATIVE MECHANISM

At present we know of the following fundamental gene repair mechanisms which lend themselves to extinguishing oncogenic genes and possibly restoring cancer cells to their normal function or, if necessary, disposing of them.

1. The before mentioned anti-oncogenic genes in the gene system.
2. The so-called oncostatins (peptides) in the cell plasma (Todaro).

These oncostatins require for their activation the healthy condenser function of the outer membrane (50 to 90 kilovolt per centimeter). Healthy embryonic cells have the potential to re-program cancer cells back to normal cells. Experimentally such re-programmed cancer cells can be brought back to their normal embryotic stage. Several drugs which are based on the oncogene principle have been developed in Germany. Even though scientifically very interesting, the actual clinical value of these drugs is very much limited.

The limitation seems to be a purely quantitative problem--the distribution of the active substances throughout the body. It is difficult to reach a concentration high enough in the inner tumor.

3. The so called killer lymph cells which at times will only be activated through contact with cancer cells, contain a factor which the killer lymph cells inject into cancer cells. This factor is most likely a steroid derived from metabolism of the thymus. Tentatively we are dealing with a very short-lived endiol (Klemke) also called Tumosterone.

This subtance seemingly has a strong gene-repair action on oncogenic malignant derailments and at the same time prevents other irregularities in the genetic system. This action can be considered a rejuvenation effect by just "keeping the genes young". Mattern, a Hoffmann-LaRoche researcher in Basel, Switzerland observed the "injection" of what seems to be Tumosterone from the killer lymph cells "NKL" into the tumor cell's genetic system. However, the activation of the lymph cells against tumor cells, strictly speaking, falls more into the immune-response catagory.

4. In the white blood cells there consists a group of defense mechanisms known as lymphokines, in the lymph cell. Included in this group are the interferon, the tumor necrosis factor TNF and the interleukines. In the last few years many reports have been published covering these defense mechanisms. However, in my opinion, their practical value in the fight against cancer is overrated. Their period of definite effectiveness against leukemia, kidney cell tumors and melanoma is limited and only remains effective for a relatively short time. Alpha-interferon (effective against the so called "hairycell leukemia") is also officially recognized as a "genetic repair substance". Lymphokines work as partners in an endogenous regulatory system and can not freely be manipulated without the trading-in of adverse effects. Interleuken II is a striking example for this.

In the summer of 1978 A McGovern-Appointed-Committee of the US Senate investigated the success rate of chemo- and hormone-therapies, radiation and surgical procedures, declaring these therapies unofficially a failure. The recommendation was that further efforts, especially in regard to toxic chemo-therapy, would be a waste of energy and money and has been. The Committee further suggested that biological principles be explored. The Committee's report resulted in

the activation of research into lymphokines, starting with interferon.

The following March of 1979, a second Senate hearing on the same subjects was called. This hearing was initiated by Edward Kennedy. I was the only foreign expert to testify. The majority of scientists questioned at that time voted, indeed, some years later, that "non-biological" cancer therapies were a failure. Statistical work from Bailar at Boston, confirmed the previous findings. Then, the federal cancer institute in Heidelberg, Germany has shown that the tumor reduction seen after the chemotherapy does not coincide with an extension of life expectancy. A fatal verdict of the value of chemotherapy.

5. Blood plasma contains several active substances which altogether have "rejuvenating" qualities. These substances are principally derived from the products of metabolic action of the cortex of the adrenal glands and of the lymph tissues. They are also cancer inhibiting and genetic repair-inducing. These substances include dehydroepiandrosterone (DHEA). In all probability, considerable amounts of additional repair substances not yet entirely known are produced at the same time. DHEA is available in an injectable solution, but it's clinical usefulness is limited. It is possible to stimulate the internal production of DHEA and of related repair substances in cancer patients by administering squalene in conjunction with large amounts of vitamin C. Squalene is an unsaturated terpene hydrocarbon found in shark liver oil (tri-pertinoid). Squalene plus ascorbic acid is also valuable in the treatment of herpes infections, herpes manifestations and increase of high risk irregularities in the female cervical canal (positive Pap smear). There, the reparative effect of Squalene plus ascorbate can directly be proven. When gene repair factors are offered routinely, the consideration of squalene and ascorbic acid is indispensible.

6. On the average, the usage or activation of repair substances produced in the human body is relatively limited in its effect simply because of quantitative limitations. The derived amount of defense substances simply can not overpower the billions and trillions of cancer cells. On top of that, each cancer cell can develop its own defense mechanism for protection against such subtances. Besides

that, interferon and interleuken preparations are extremely expensive. For that reason it is important to search through our environment for gene repair subtances that can be used effectively against human cancer. The possibility to succeed is very good.

GENETICLY EFFECTIVE SUBSTANCES

From the ochrosia plants (Moluccas Islands) the effective substance "Elipticin" is obtained. Shibata, in Japan, isolated at least thirteen saponin substances from the ginseng root which are effective against cancer and at the same time have a rejuvenating effect. The mandelonitriles, bitter almond substances (so far fifty-five variations are known) have the ability to split into various repair substances in the organism or in the cancer cell. The free Benzaldehyde released from it has been especially known for its direct gene repair ability of cancer cells (Kochi, Japan). The chemically simple acetaldehyde is also remarkably effective. Acetaldehyde has earned considerable importance as in the "Ehrenfeld Program" in preventive therapy against melanoma and in the primary therapy of brain tumors. Principle weapons in cancer and leukemia therapy for us today are: bitter almond substances, a synthetic variation of bitter almond substances, called ureyl-mandelonitrile which attaches itself to urea, and the Ehrenfeld program.

7. The insect eating carniverous plants, especially the venus fly trap, provide a series of gene repair substances and at the same time special membrane - attacking enzymes which are most interesting. The carnivorous extract has definite effectiveness in clinical oncology, not only to eliminate malignant cells, but also to eliminate tissue damage through radiotherapy. However the cost, to keep the extract effective and free from toxins, is relatively high. The usage of these substances by experienced oncologists increases every year. Likewise, the administration of carnivorous extract in dangerous herpes infections is extremely effective. During the process of dissolving trapped insects, carnivorous plants have to extinguish the genetic information released by the insect chromosomal material otherwise this information could be integrated into the plants own genetic system. Mrs. McClintock received a Nobel Prize for having discovered the "migrating of genes". Human intestines also apply a compulsory "gene extinguishing" principle. Is it

this principle that makes the intestine, the only epithelial organ, relatively resistant to malignization? In addition the carnivorous extracts also contain the repair factor "plumbagin" as well as special enzymes which are specifically active against tumor cell membranes and against membranes of radiated cells.

8. The Himalayan valerian plant contains the effective subtance didrovaltrate. The specific anti-cancer gene-repair effect of this substance was first discovered by Anton and his Associates in Strassburg, France. Dr. Thies, Hannover, Germany, described this substance in its chemical constitution. It has considerable use, especially in preventive therapy and in application against kidney tumors and tumors in the oral cavity. The substance first has to be changed metabolically into an effective dialdehyde which is lipid soluble and because of that, can to some extent penetrate larger tumors. During therapy it is necessary to administer at least twelve to twenty coated tablets daily, 600 - 1000 mgs per day. This becomes a cumbersome therapy when used over a long period of time. Unfortunately, no other method of application is possible to date. In today's cancer therapy didrovaltrate is used only periodically.

INSECTS - THE MOST EFFECTIVE PRODUCERS

9. Insects are the most effective productive producers of gene repair substances. Ants, for example, have the capacity to produce large amounts of gene-repair substances efficiently. The result is that insects like ants hardly ever develop tumors. They are able to host unbelievable amounts of viruses in their organism, without showing ill effects. Yet insects have no immune system, phylogenesis only equipped them with a repair principle. For this, ants sacrifice their individuality because of the total genetic surveillance of their population ("the socialistic ant"). Ant, and other insect colonies, therefore consist more or less of uniform phenotype. The genetic protection in ants is called iridodial, named after the Argentine ant, Iridomytrex. The substance iridodial is similar to the activated dialdehyde, called didrovaltrate, except that it shows a significantly smaller backbone molecule. In order to be effective, the backbone - molecule has to be energetically stimulated, a phenomenon of pivotal importance.

Most likely the specificity of the molecule is defined by the degree of stimulation it receives. Since ants are practically always found staying in geopathogenic zones, they apparently require especially strong repair potentials. On the other hand, they could derive the stimulating energy to activate iridodial from this energy input. In cancer patients some carnivorous plant extracts and the therapeutic value of iridodials outdistance most effective substances known to date in the medical treatment of cancer. A pre-requisite to their effectiveness is that the tumors have not grown beyond a certain size. Smaller tumors can be eliminated with this treatment, while larger ones do not respond as well. Even though directly effective against cancerous growth the problem seems to be that the more cancer there is, the less effective is the substance. However, all known types of tumors are influenced, even breast cancer, which shows resistance to most all of the repair substances, except "DHEA" (probably because of an unleashed virus problem).

Several methods of application of iridodial are now offered in Germany. Iridodial can be administered orally, intramuscularly or intravenously. Presently an oral, much more effective and more substantial capsule of iridodial is being developed.

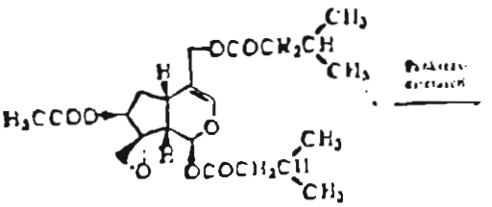
TREATMENT COST REDUCTION POSSIBLE

Only relatively unreliable laboratory technical methods are presently available for the early detection of cancer. Modern methods of testing include the alga test by Doetsch which is being developed and shows promise for a much earlier cancer diagnosis. Blood serum out of patients hosting cancer in a very early stage produces a cytopathic-generic effect in certain green algae, e.g. in Euglenia.

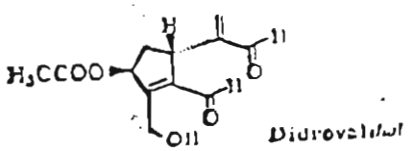
Not only are iridodials more effective and much less expensive, they are also completely free of any side effects, they are not toxic and they can be administered without complication in early and suspected stages of the disease for an unlimited time. This was not possible with presently known cancer medications because of pharmacodynamic reasons emerging out of their toxicity. Incomplete and so called palliative surgical procedures against cancer would make a

lot more sense when followed by massive therapy with iridodial, carnivora extract, squalene-ascorbate and thymus.

The financial expenditures for the treatment and control of cancer would become considerably less expensive and special oncological hospitals would be less necessary. Cancer patients could be treated successfully and less expensively, but most of all, humanely, by their family physician or by an internist.

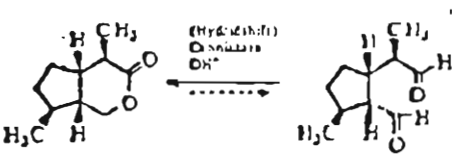


Didrovaltratum



Didrovaldial

Conversion of Valepotriate (Didrovaltrate) of the Himalayan valeriana plant into the highly antimalignant genetic repair factor Didrovaldial with the help of enzymatic or energetic processes. Didrovaldial is lipid soluble and may penetrate even bigger tumors. It is functionally closely related to the insect's Iridodial.



Nepetalacton Iridodial

Formula of the insect derived Iridodial molecule. It is bifunctional which suggests that it may repair or seal genetic defects. It requires a certain degree of energetic excitation to become effective. This energetic excitation

determines its effectiveness also in e.g the antimalignant therapy of man. Iridodials brutally control the genetic information not permitting any degree of individuality-but also not permitting a malignancy chaos.

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THE NON-TOXIC LONG-TERM THERAPY OF CANCER: Necessity, State of the Art, Trends by Dr. Hans A. Nieper, M.D., Dept. of Medicine, Silbersee Hospital, Hannover FRG.

Hans A. Nieper was born at Hannover, Germany, May 23, 1928. After university training at Freiburg in 1951 he went on to demonstrate a creative and intelligent understanding of subcellular dynamics. In cooperation with the chemist who first developed the industrial synthesis of acrylic acid, Dr. Kohler, he pioneered in 1958 the development of a chemotherapeutical approach to subcellular cancer dysregulation dynamics. His earliest publication was a booklet in 1953 on a theory of cell growth regulation. He has since published more than 200 articles, many of which are currently available from the Brewer Science Library, 325 N. Central Avenue, Richland Center, Wisconsin 53581 U.S.A. or call 608-647-6513. FAX: 608-647-6797

Dr. Nieper is the inventor of electrolyte carriers or mineral transporters, which are coming to play an increasingly important role in protective metabolic therapy which he calls eumetabolic therapy. In 1972 Dr. Nieper developed his de-shielding therapy employing enzymatic decomposition of mucoid shielding surrounding tumor cell membranes and observed how both proteolytic enzymes and glycolytic enzymes are required for this process. He also conducted extensive research work in the field of non-toxic anticancer agents such as thiruamederivatives, oncostatatic metal carriers and mandelonitriles.

Dr. Nieper is founder of the German Society of Medical Tumor Therapy, a life-time member of the prestigious Deutsche Ges. Fur Naturforscher und Arzte, of the American Association for the Advancement of Science, and a member of the Board of Trustees of the International Academy of Preventive Medicine.

His hobby for many years has been gravity theory and research, and his work in this field has attracted the attention of scientists with NASA and with many European and U.S. industries. This earned him a bibliography in the prestigious Two Thousand Men of Achievement. Data obtained from the Juniper and Venus probes seem to support Nieper's "Shielding Theory of Gravity." Dr. Nieper expects the extraction of abundant power from gravity field energy.

Dr. Nieper serves as an Associate Editor of the Journal of the International Academy of Preventive Medicine (JIAPM) and is also preparing an article for his Journal dealing with protective myocardiology to appear in a future issue.

INTRODUCTION

Since 1955, when surgery achieved a high standard, hardly any progress in the cure of cancer has occurred. Better results in the treatment of lymphogranulomatosis, of certain leukemias in children, of sarcomas and of lymphomas are so small in number as to hardly affect the overall statistics.

Certain euphoric reports, embellished due to various motives, and results, and which concern more the outcome of short-term and intermediate treatment than the absolute decrease of mortality from cancer, cannot hide this grim reality.

This apparent conceptual and therapeutic cul-de-sac is particularly depressing for one who can see behind the scenes of this tragic arena. Practically no institute, official society or research group today offers us a way out of this sad reality.

Thus, the in-depth critical analysis presented in Krokowski's paper in this same issue of JIAPM is of special interest.

McGovern Committee Findings

Following a hearing in June of 1978 the McGovern Committee of the United States Senate concluded that the about 8 billion dollars, which was additionally spent since 1971 on the "war against cancer," had been in effect wasted because of "false priorities" in research. It would appear that the increased popularity of so-called "unorthodox" therapeutic methods and conceptual approaches (especially non-toxic, harmless ones) has become an almost inevitable consequence of this confused state of affairs (N.Y. Times, 1978). Indeed, NCI's reports of November 1978 reflect rather strongly this new focusing on host defense parameters in cancer, and clearly one of the several necessary new directions is increased attention to prophlylaxis of metastasis as urged by Krokowski's article (1978).

Orientation

Some of my current reprints are now available in English translations from the Brewer Science Library at Richland Center, Wisconsin 53581 (Nieper, List). By 1956 I realized that cytostatic therapy was programmed to reach a dead end. In this regard the reader is referred to my essay on the crisis of mechanistic medicine which appeared in the last issue of this Journal (Nieper, 1979).

We have to acknowledge that the only "physician" who can heal a cancer process in the patient's own organism is Nature. This is true for any disease, and particularly so for cancer, which must be regarded as integrated into the mechanisms and natural laws of the organism itself. Approaches and concepts that are alien to this biological identity and which neglect this biological reality must fail. Furthermore, cancer is basically a chronic disease with a very long subclinical or latent stage and, according to physicians' observations, rarely exists with long stable phases. Consequently, it can only be successfully treated with a therapy which can be administered over an indefinite period of time and which must in no way damage the patient's defense system; but to the contrary, should improve it in every way and in every phase.

Finally, one must consider that the course of this disease, as well as the success of treatment, is undoubtedly determined by the relationship between agressiveness of the disease on the one hand and host defense capacities on the other hand. It is not simply the invasiveness of the cancer, but the host's vital, overall susceptibility and resistance ratio which must be considered. Thus, cancer must be treated continuously and as early as possible, namely, at the time when the relationship between these opposing forces has not yet shifted to the detriment of the organism. These general rules, which are so rational clinically and so obvious to the practitioners of preventive medicine, have nevertheless been scarcely applied in the therapeutic methods generally accepted so far in our war against cancer.

The Surgical Solution?

Surgery is still a modern treatment because it is eumetabolic and can free the patient's organism from the immuno-suppressive action of the tumor. This may explain the partial success of surgery in the treatment of cancer; however, this approach has two short comings:

1) There is fundamentally no radical surgery of cancer because the disease process involves the whole organism. A definitive cure of cancer by surgical measures is statistically due to the relationship between disease and host forces and not to the "radicality" of this intervention.

2) The surgical intervention is by necessity always a short term measure and is, therefore,

basically unable to cope with the chronic long-term problems of the disease involving systemic metabolic dysregulation.

The Radiological Solution?

Lasting successes following treatment with X-rays or radioisotopes are also due to the afore-mentined disease-host relationship rather than to the absolute or direct efficiency of these methods. From a biological standpoint, also, surgery and radiations are short-term applications which can in no way cope with the long-term biological nature of cancer dynamics. Moreover, radiation is likely to damage or destroy the immune system. The relative or absolute damage to the body's immune defenses can be prolonged, and in a surprising number of cases it can be so severe that a statistical comparison show irradiated patients, particularly with tele-cobalt, to fare worse than untreated patients. In this regard, critical analysis by the radiologist, Stjarnsward (1978), has caused worldwide excitement. His interpretation is shared by several other authorities in the field, and is especially applicable for radiotherapy of early breast cancer and of the chest region.

The Chemical Solution?

The cytostatic chemotherapy of cancer has proven disappointing, more than is generally admitted. Hidden in this approach are profound conceptual errors which have prompted me, since 1956, not to devote any further scientific interest to developing this approach.

Practically all groups of substances which play a role in the toximolecular therapy of cancer have an active principle which negatively affects the structure and dynamics of the cells. There is little or no therapeutic selectively for cancer cells on the basis of cell structure and only marginal selectivity on the basis of cell function. In my opinion, classes of chemical agents which affect the structure of cellular components are of little use for the long-term treatment of cancer. These properties make them systemically toxic and damaging to the host organism, which is the only "physician" able to heal cancer.

Due to the acute and chronic toxicity, the cytostatic, toximolecular therapy is not suitable for long-term eumetabolic therapy. Even more importantly, cytostatic therapy is not suitable for a preventive, protective approach, continued without time limitatation, namely the sort of therapy necessitated by metabolic dysregulation and biological breakdown at the core of the cancer process. Therefore, this therapeutic concept (the chemical or toximolecular solution) is not applicable for the early phase of cancer which would be particularly responsive to treatment. The arsenal of cytostatic therapies includes agents related to nitrogen mustard, ethylene amines and various antimetabolites, phytochromogens, and platinum compounds. Such cytostatic agents will possibly remain important for some time, but only as "emergency brakes" for short-term use, to reduce tumor volume or to achieve a slight tumor inhibition at a subtoxic dosage. Systemic toxicity is acceptably low for colchicine derivatives (Proresid) and for most forms of the carcinostatic hormone therapies. Ixoten (trophosphamide) can be useful at low dosage; e.g., 30-80 mg. per day, since it may inhibit suppressor cells and immune reactions against surface antigens but leaves intact, at the same time, the system of cellbound immune defense. This seems also to apply to Alkeran at a dosage of 0.5 - 1.0 mg. a day.

The Dilemma

A chemotherapy with toxic consequences that shift the balance of tumor-host relationships to the negative side must sooner or later end in a metabolic cul-de-sac. The only therapeutic agents which can be considered as suitable for a true long-term metabolic therapy of cancer are those which affect the cell metabolism and also can be eliminated (detoxified) without lasting damage to cellular structures. Only a eumetabolic or biological, long-term therapy can be considered as the desirable protective therapy for the very early stages of this chronic disease pattern. This concept is operative in the contrasexual hormone therapy whose relative non-toxicity is certainly the reason for its high rank among the various therapeutic modalities despite its modest successes with limited indications. Similarly, thanks to the sound but all too often undervalued instinct of physicians practicing modern modes of alternative medicine, weak-acting but non-toxic biological substances such as mistletoe, colchicine derivatives, extracts of thymus, of spleen, nitrilosides from plants, and enzymes from plant and animal sources have performed better than many a powerfully promoted toxic chemotherapeutic agent.

A biological Solution?

Our search over the past 20 years to develop a long-term, non-toxic therapy of cancer has become increasingly known in the medical community. Two years ago I reported on the development and on the results achieved with such methods (Nieper, 1977 a,b) and those findings remain valid. I anticipate that a follow-up report can be made about our current and improved treatment program in about two years.

An Overview of Eumetabolic Approaches

I should like to offer an overview of our non-toxic, eumetabolic long-term therapy of cancer: our approach is to begin treatment as early as possible; at the latest, when a diagnosis ascertains the presence, localization or size of tumor. Basically, there is no rational argument to delay the therapeutic approach described here. Any combination with radical or palliative surgery, or with radiation or chemotherapy in a nonimmune-destructive range, is acceptable. In clinical reality such procedures have generally preceded our therapeutic efforts. The cancer treatment concept and program introduced by my associates and me is based on three measures: 1) direct treatment of the cancer cell or tumor; 2) activation of the body's defense system; 3) unblocking of the immunologic defense mechanisms of the body. Let us now consider these three measures in greater detail.

1. Direct Treatment of Tumor

Application of systemically non-toxic inhibiting substances like arbutine (diglucoside of hydroquinone), copper gluconate, colchicine derivates (Proreside), mistletoe extracts, and if indicated, hormone therapy would constitute a biological direct tumor treatment approach consistent with a eumetabolic treatment procedure. Hydroquinones have been studied by Gerhard Domagk as non-toxic cancer inhibitors. To this latter group may also belong the natural mandelonitriles which originated as cancer inhibitors in Chinese and Russian folk medicine and were brought to America and Europe. Rationally applied they can be used for decades of treatment without adverse side effects and have, under certain favorable conditions, a considerable carcinostatic long-term effect. Unfortunately, circumstances in the United States have made such approaches the object of an emotional political conflict. Their mechanism of action and possible future value will be discussed below.

Zinc Orotate

A very simple, though in my opinion indispensible, method for direct tumor treatment is high-dosage zinc therapy with carrier molecules having affinity for cancer cells, such as zinc orotate. This principle was orginally discovered by Duncan and Dreosti (1976).

High intracellular zinc concentrations inhibit thymidine-kinase activity and paralyze tumor agressiveness and progression while at the same time activating the immune system. The daily dosage is 350-1000 mg. of zinc orotate or aspartate, which should be given alternatingly. The requirement for this treatment is that the tumors do not exceed a volume of up to 1 ml. And are limited in number. Otherwise, the zinc concentration in the tumors apparently cannot be boosted to sufficiently high levels. This high dosage zinc therapy is to be used at the early stage of the disease since it is also very important for the normalization of immune parameters.

Conventional Cytostatic Agents

Out of the group of conventional, systemically toxic cytostatic agents, we use, as a rule Alkeran (3-8 mg. week) or Ixoten (trophosphamide being the generic name-Ixoten has officially been on the market in Germany for 12 years, being a successor to cyclophosphamide), (40-100 mg daily). In cases of mammary carcinoma and liver metastasis, injections of 5 FU can be given, but a dosage not exceeding 250 mg. every 7-10 days.(Note: We have found that trophosphamide (Ixoten) given 100 mg/day for more than 700 consecutive days does not result in any negative effect on anti-cancer immune parameters, provided a supportive immuno-therapy (as outlined here) is carried out. We find this an important observation which is paralleled by important therapeutic results, especially in ovarian carcinoma. This has to be understood as a subtoxic long-term chemotherapy and not a toxic chemotherapy.)

Infusion of Ozonide

A special measure for short-term efforts to reduce tumor volume (e.g., in the management of threatened ileus) is intravenous infusion of a lipid ozonide. For this purpose 0.7-1.2 mg ozone is added under pressure to 100 cc "Intralipid-Kabi." The clinical effect is evident only for some days or weeks. In addition, it is possible with this method to diminish the oncogenic immune blocking as can be measured by the increased reaction to BCG or tuberculin.

Natural Mandelonitriles

The natural mandelonitriles, which occur mostly as nitrilosides such as amygdalin, prunasin, cassavin, dhurrin, and many others, are not only part of ancient folk medicine, but, contrary to opposing statements, are effective in experimental models: e.g., Ehrlich carcinoma of mouse, lung metastases from spontaneous mammary carcinoma of Swiss mice, Walker carcinoma in the rat, Guerin tumor in the rat (Metianu, 1977/78), tumor in the dog (Summa, 1972), as well as other animal models. It is not so much the degree of activity that is decisive, but the observation that these substances are apparently representative of specific carcinostatic active principles which can be given in reasonable amounts for an unlimited length of time since they are non-toxic: I have observed this in 14 years of continuous use (Nieper, 1977a,b) in humans.

The active principle of the mandelonitriles has not yet been fully elucidated which has had a negative effect on the work with these substances. The following hypotheses are being currently discussed.:

A. Cyanide is set free in tumor cell due to increased activity of beta glucosidase or beta glucuronidase. Many findings appear to contradict this hypothesis.

B. Tumor cell specific degradation of L-glucose isomer from natural nitrilosides. Casati (1973) has shown that only tumor cells can utilize L-glucose.

C. The degradation of nitrilosides results in the formation of thiocyanate which, according to work of De Saussure, can dissolve immune complexes, generally, and blocking immune complexes on tumor cell membranes, specifically.

D. Neunhoeffer (1976) and Klemke (1978) assume that nitrilosides react with the typical oncogenic hydroxylamine impurities of malignant peptides and thus eliminate a specific oncotoxic principle. Several as yet unpublished findings strongly support this interpretation which also explains why cyanobenzyl groups are essential for the action as against other nitriles. The outstanding, very interesting clinical action of mandelonitriles on plasmacytoma can only be explained by this hypothesis, particularly since the action is initially not a companied by an equivalent normalization of the electrophoretic findings. Hydroxylamine impurities at the amino groups are marked features of plasmacytoma. The interested reader is referred to the studies of Neuhoeffer (1976) and Klemke (1978) concerning the central oncogenic significance of hydroxylamine formation. Peptides contaminated with hydroxylamines become alien to the organism metabolically and immunologically since their biological information has become "illegible." Moreover, the very important direct pain killing effect of nitrilosides in cancer can, at the earliest, be explained by hydroxylamine inactivation.

Future Therapeutic Orientations

Based on our clinical experience we renounce in many respects, the attempted destruction of the tumor cells by toxic therapy. The non-toxic long-term agents that are presently at our disposal are aimed at paralyzing the tumor cell and its host - damaging, aggressive mechanisms so that the body's potential defense system, as discussed below, can dominate and possibly eliminate the invasive cancer processes.

Concerning future positive therapeutic orientations, I attribute considerable significance to the concept of a substance called Tumosterone first defined by Klemke (1978). Tumosterone is chemically an endiol steroid connected to a thymosterine, which, with the assistance of thymosine, is probably converted to tumosterone as defined by Klemke who worked in New Jersey and New York several years ago. Tumosterone is thought to repair nucleic structure and errors in tumor cells and to normalize the readout of genetic information. There appears to be a growing body of evidence supporting the likelihood of this concept which makes it one of the most dramatic developments in recent times in this field. Possibly not only malignant "misinformation" can be corrected in part, but also the breakdown in genetic code control accompanying the aging process and immuno-diseases may be treated by this approach. In the future I will prepare a manuscript for the JIAPM where I will review this literature and expand on this metabolic approach to dysregulation disease control.

2. Improvement or Restoration of the Body's Defense Against Cancer

This eumetabolic approach requires at the outset a determination of immune profiles or status which give a measure of the defense capacity of the body, its reserve capacity and its proneness to immune exhaustion.

Immune Status Assesment

For this purpose it is necessary to have a whole blood analysis for zinc, copper, magnesium, potassium, phosphate, calcium, and also an analytical evaluation of lymphocyte behavior (See Appendix-Table 4). Infraseparation of lymphocytes according to their size (e.g., naked-nuclear, small forms, younger forms with more cytoplasma) proved to be more valuable and more practical to give an insight into cellbound anticancer host defense than is noting rosette-formations of T-and B-lymphocytes. This same examination of the cellular immune system is to determine whether or not it interacts with the cancerous disease factors. Occasionally, this is not the case, particularly with blood groups A or A_1. According to our findings about eight percent of all cancer patients are totally non-reactive.

BCG-Pasteur

(0.1 mg BCG Pasteur in 5 ml. Of Ringer solution) is injected in several large subcutaneous depots to test the immune reaction. Subsequently, a reddish halo of about 5-9 cm. Diameter should develop around each of 6-10 subcutaneous injection sites; moreover, some temperature may develop (up to 39° C.). What has often been observed in connection with BCG vaccination is the activation of cell-bound immunity against cancer, especially of the macrophages. However, T-cell activation has also been observed. The BCG procedure at the same time, of course, is the first measure in the activation of the immune system apart from the biological "feeding" of this system prior to its use.

Zn/Cu Ratio

The relative levels of copper and zinc in whole blood and the results of the lymphocyte infraseparation throw light on the tumor aggression and on the contrasting availability of the immune reserves. The legends accompanying the figures given further expand on the meaning of the Zn/Cu ratio. The procedures are simple and adequate for this purpose.

Thymus Activation

Subsequent to the establishment of an immune status profile, it is necessary to activate thymus function with zinc and vitamin A or beta-carotene. These agents are indispensable for adequate thymus function. Since moderately large doses of zinc can feed the tumor by activating protein synthesis, zinc should be given either at a very low dosage (at which immune system is activated) or at a very high dosage (which inhibits tumor cells by blocking thymidine-kinase activity.)

For immune system activation therapy in cases of advanced cancer, I recommend 0.2-0.5 mg. zinc gluconate and zinc aspartate (350-1000 mg. daily) is only suitable when the tumor size is very limited. Vitamin A and beta-carotene both activate the thymus lymphocyte (T-cell) system. Beta-carotene is preferable and one to three glasses of carrot juice daily with 5-7 cc. cream per glass for better gastrointestinal absorption (or capsules containing beta-caroten) is recommended.

Magnesium supplements are also important, even in those exceptional cases when the whole blood analysis indicates no magnesium deficiency. The function of the macrophages and the formation of properdin (which is again commanding the interest of oncologists) are dependent on the magnesium supply. Magnesium chloride (1-3 g/day) and injections of magnesium ascorbate (Magnorbin) are suitable.

Finally, to prevent immune exhaustion, it is advised to give gamma globulin; e.g., 2-5 cc. "Beriglobin" per week. Even at the lower limit of 2 cc., the action is occasionally spectacular clinically as well as causing reactivation of BCG injection sites. Gamma globulin apparently contains a factor which activates the T-lymphocytes.

3. Active Measure to Overcome the Blocking or Shielding Phenomenon

Investigations have confirmed many times that tumor cells produce an HCG-like shielding substance which makes the tumor cell membrane antigens unrecognizable to the immune system defenses and, after having spread in the body fluids, blinds lymphocytes that have already been transformed. This malignant, immune-blocking HCG apparently acts by its electric (i.e., "resonance-diminishing"), repellent properties and not by a definable chemical reaction-a fact that we regard as very important.

Acevedo and his-coworkers (1978) have recently provided the same interpretation, independent of our work. The oncogenic HCG production may be understood as a trophoblastic cell atavism, for it will be recalled that the blastula is immunologically protected in the same way from the mother. Hydroxylamine contamination of the malignant HCG unfortunately prevents, to a large extent, the application of the immunological HCG pregnancy detection test in the diagnosis of cancer.

Degradation of the shielding mucoid of cancer cells can be archived with enzymes that have at the same time proteolytic and glycolytic activity. Crude bromelain extract, papain and papayotin are very effective in vivo, whereas trypsin has only little efficacy. This continious treatment requires from 600 to 1000 mg. bromelain daily with a bromelain activity of 1240 gdu (gelatin digesting units employed in the testing of bromelain activity). I call this treatment the "enzymic de-shielding therapy" of cancer. (Nieper, 1976)

Specially stabilized crude bromelain (Anavit CCI) contains an enzyme factor which inactivates prostaglandin E_2 and thromboxanes. Oncogenic prostaglandin E_2 inhibits the tumor-killing function of macrophages while thromboxanes lead to platelet aggregation and certainly favor the nidation of castaway tumor cells as shown by Schultz (1978). Therefore, the enzymic de-shielding therapy is also necessary to prevent metastasis as urged by Krokowski in his article apppearing elsewhere in this issue of the JIAPM.

In addition to the program already outlined, we obtain an active immunization with BCG, gernerally in the form of BCG-Pasteur, 0.1-1.2 mg in 5-10 cc. Ringer solution for subcutaneous injection in 8-12 different sites followed by rubbing of the injection site: we prefer this procedure to scarification. Any subsequent temperature elevations which last up to 48 hours can be easily controlled at any time. Such temperature elevation is desirable for therapeutic success. This point has also been stated emphatically by Mathe (Cancer-Immune Conference, Hannover), and we fully confirm this finding and regard it as the reason for the relative success of the subcutaneous injection approach over scarification (Nieper, 1979).

Whenever possible. We strive to initiate the above-mentioned eumetabolic program as early as possible in treatment. In cases of relatively advanced cancer, where the immune system is greatly stressed or even exhausted, our suggested measures are relatively ineffective, and BCG vaccination can even accelerate exhaustion. We consider it basically inadmissible to conduct a BCG-therapy without "feeding" the immune system at the time, thus making prior determination of immune status essential.

Treatment Observations

The following observations seem to us to constitute important development growing out of recent years of experience largely involving out-patients (94 percent).

First, concerning pretreatment of accessible tumors with iridium 192 (prior to undergoing the treatment program outlined and conceived by us): in this group we have inoperable mammary tumors as well as tumors in the oral region. In both indications the findings suggest that the achievable results are unusually good. This is particularly true for the mammary cacinomas. The better overall results of this method may be due to the fact that, unlike tele-cobalt treatment, needling with iridium 192 does not destroy the immune system. Furthermore, this method is excellent to control carcinomas with the known risk potential of inflammatory spreading over the skin. It appears that this treatment route, which combines iridium 192 needling with a non-toxic, carcinostatic long-term regimen, should be intensively pursued further.

Second is a point of fundamental important which concerns a substantial extension of our knowledge about the causes of the weak immune defense in cancer:

Consider the definition of life as a process determined by: a) organic matter (structure) and b) electric or electromagnetic rhythmic activity (behavior or function). Without the latter the organism would not function. Likewise, the immune defense system appears unable to function without specific electric resonance or behavior characteristics.

We definitely know that an electrically neutral material such as oil, plastic or neutral metal is tolerated by the organism for a practically unlimited length of time without being rejected. This is well known in plastic surgery. In this case the immune tolerance results from the lack of electrical resonance and not so much from a lack of potentially antigenic structures.

Electrical Resonance and its Restoration

In the past years we have put together evidence indicating that the cancer cell can avoid immune interceptin by the host organism due to its lack of electrical resonance. There is rather strong evidence that this constitutes the decisive principle in the neutralization of immunity. It is remarkable that neither the immunologically suppressive HCG, nor its counterpart in cancer, act by a special chemical constitution but rather by a principle which neutralizes electro-chemical interactions. Acevedo (1978) and his co-workers appear to have independently arrived at the same conclusions. By comparison we know, for example, that the broad spectrum antibiotic effect of apicillin, obtained from the propolis of honey bees, derives from its electrical properties and not its chemical structure.

Resistance / Capacitance Ratio

To measure resistance (k-ohm) and capacitance (microfarad) in conduction we use the Biotonometer which functions on the principle of a Wheatsone Bridge. Such measurements give an approximate although not consistently reliable, insight into the resonance of the organism itself. As a rule the ratio of resistance to capacitance increases with increasing immune neutralization.

Recall the halo phenomenon in melonoma with a sudden regression of skin tumors leaving a depigmented zone. In two such cases we measured a drastic decrease in the ratio of R/C during this halo phase. Accordingly, we suspect that the halo phenomenon is due to immune activation from increased electrical resonance. Recall also the fact that individuals with an apparently high electrical resonance either rarely have cancer or have a slowly progressing type. Such individuals are patients with hyperthyroidism or hypertension and an accompanying article in this issue by Schwartz provides interesting evidence relating to the former.

An intercurrent, essential hypertension can apparently cause complete remissions of an established metastatic malignancy. It has been reported, furthermore, that a level of over 20 mg. carbon disulfide per cubic meter of air induces essential hypertension in industrial workers, occasionally with renal involvement. According to my own findings, these workers have very low incidence of cancer. These observations and relections, together with the extremely important conclusions of Popp (1978) in this field, have prompted us to focus on the restoration of normal electric resonance in our treatment.

One of the practical means of achieving restoration of resonance is again through the use of proteolytic enzymes (such as bromelain) to accomplish a de-shielding of the mucoid layers of cancer cells that blind the killer lyphocytes and macrophages. Another means is the application of acetaldehyde in alcohol at a dosage of 200-600 mg. acetaldehyde in about 20 g. alcohol daily. This therapy appears to be particularly effective in the treatment of melanoma and will be the subject of a later report.

The method of choice, however, remains the supplementation with beta-carotene which has substantial resonance capacity, in contrast to vitamin A itself (Lewis & Pethig, 1977). The blood level should reach values of 6-8 mg. beta-carotene per liter. This results in deposits of beta-carotene in the skin, particularly in the palms of the hands, which is a desirable phenomenon. It also promotes activation of the thymus, as noted previously. Furthermore, we may no that the P=0 principle in the thymus gland appears to be a significant resonance carrier for the electro-activation of the immune system.

Beta-Carotene Deposits

Meanwhile we have made a very interesting finding: all patients who deposit beta-carotene in the skin and turn yellow are characterized by a good prognosis and respond well to treatment. Those patients who do not turn yellow, even with a large beta-carotene intake (e.g., 0.6-0.7 liter carrot juice with some cream daily), clearly have a poorer prognosis though that may initially not be evident. Mutual competition and inactivation of deposited beta-carotene and oncogenic immunosuppressive shielding by HCG (Hogan-Ryan, 1978) may explain this very important phenomenon. As a matter of fact, Hogan-Ryan (1978) recently reported that in Landschutz Ascites tumor, vitamin-A-alcohol has a deshielding property "like neuraminidase." Since beta-carotene is not an enzyme, like neuraminidase or bromelain, the inactivation of the oncogenic HCG-like

shielding and mucoid blocking by beta-carotene is possibly due to an electrical and not an enzymatic phenomenon.

Selenium

In the context of the aforementioned report by Lewis and Pethig (1977) on the presence of hopping charges in a glass-state (the glass-like condition in a deep freeze state). In this state only charges which are very "loose" will move. This may indicate that in normal temperature the respective substances such as beta-carotene will more easily give off charges or interfere electrically: frozen beta-carotene at 36 K is significant. Moreover, such a particular, photon-assisted, electrical excitability is also found in selenium. Interestingly, the intake of selenium in the human diet is known to be negatively correlated with cancer frequency. An extensive paper by Schrauzer, White and Schneider (1978) indicates a drastic lowering of cancer incidence merely by supplying selenium and that the addition of selenium to table salt is considered as a possible cancer-prophylactic measure which would, in addition, also lower the incidence of sudden myocardial arrest. In my own program of cancer therapy I prescribe selenium tetrachloride ($SeCl_{4,0}$ 1 % in syrup simplex, 1-2 tsp. Daily) and have been doing so for several years now.

Some Final Considerations

In the fight against the cancer cell only the cellular immune defense, together with lymphocytes and macrophages, play a significant role; whereas, antibodies against surface antigens can even increase the shielding effect and thus undesirably protect the cancer cell (the enhancement phenomenon.)

Immune Capacity and Membrane Polarization

The observations with the HCG shield and certain other findings suggest that the acceleration of lymphocytes and macrophages towards the antigen system of a cancer cell under attack is seen by me as a likely expression of a form of gravitational acceleration. This would mean, in other words, that without membrane polarization (which under normal conditions in man is about 50-80 mv), there will be no migration of white blood cells onto a target. Belbet in France called this "cytophlaxie" in 1917 and in those early days was able to show magnesium-dependent enzymes as increasing both cell membranes charge and WBC-migration.

We know that such Feinberg-interceptive momentums depend on the tension of a condenser charge: in other words, the polarization of cell membranes should be as large as possible for the cellular immune defense to function optimally. Indeed, such conditions (as found in hypertension and hyperthyroidism) are negatively correlated with cancer incidence. Thus, to activate the mobilization of ATp remains one of several possibilities in accomplishing an increase in the polarization of the condenser-like cell membranes. This may be achieved by the action of potassium-magnesium-aspartate (Trophicard, Tromcardin). Physical influences from Earth, Cosmos, or Technology, which are apt to discharge regulatory biological condenser systems, are to be absolutely avoided by healthy individuals as well as by cancer patients: e.g., electric blankets, blind springs from the Earth (detectable by dowsing or by the accelerated discharge of an electrometer), electrically discharged atmosphere in concrete buildings, in airplanes, in submarines or in shelters, etc.

Conclusions

I am convinced that the subject of electroresonance holds much promise for the future, particularly with respect to the control of cancer. Just recall the earlier experiments by Priore who was able to cure tumors induced in rodents by means of cardiorhythimically intermittent magnetic fields.

The successful realization of long-term eumetabolic medical tumor therapy requires the fullest cooperation of the patient. The efforts to gain the patient's cooperation must include education by means of clearly written instructions including a suitable diet program which does not promote cancer and the additional recording of all consultations on tape cassette, which the patient then take home.

We know from our particular, international patient population that the group of patients who learn easily and are most cooperative have about 220 percent higher success with respect to the 18-month cure rate than the less cooperative educable patients.

The patients who have survived 18 months of this treatment program well, and with a tendency for improvement, enter a phase in which their age-adjusted life expectancy remains relatively constant, statistically speaking. That is not the case with patients on chemotherapy who can expect a continued drop of life expectancy after 18 month of survival. Apparently a "decision" is reached after about 18 months whether or not the host organism will be dominant over the disease. (Completely independent from us, Mathe has also reported, in his immune-therapeutic program with BCG, a transition into a phase of relatively assured survival after 18 months (Nieper, 78).

Two years ago I reported a quasi-cure of 45-48 percent according to the 18th month criterion among incurable out-patients (Nieper, 1977a,b). Among the incurable patients who had to be hospitalized we achieved a quasi-cure rate of hardly 18 percent. This group included still some patients who were hospitalized mainly for diagnostic reasons.

For a group of patients who can be considered to be in very early stage of cancer, but still at risk (judging from tumor anamnesis, slight reduction of naked nucleus forms in the blood and from other immune criteria), the non-toxic long-term therapy program achieves a quasi-cure in 75-80 percent of the cases. Of course, these values are subject to criticism in several ways and should be regarded only as pointers. However, they do indicate an important basic insight: the earlier the stage in which this eumetabolic therapy is begun, the better the chance of lasting success.

Conventional medical approaches, embedded as they are in mechanistic concepts and strategies, have proven by now quite incapable of solving the cancer problem and its therapeutic management. The verdict of the United States Senate of June 1978 would appear to seal this conclusion although not much has happened since that 3 day Kennedy hearing; although, it would appear that all cancer research institutes are directly or indirectly being called upon to present non-toxic, long -term treatment proposals as well.

In Germany the collision between modern cancer therapy and the traditional health legislation of the government at Bonn could also lead to the end of prevailing "mechanistic" approaches here. In health legislation, having little preference for and no scientific education concerning metabolic-oriented, biological and preventive medical action, we can hardly expect the bureaucratic initiation of a modern biological cancer therapy. Progressively rational therapeutics can thrive just as poorly on any soil of tradition-bound, collectivistic bureaucracy anywhere in the international medical establishment.

Finally, we need the developed education and understanding of the potential patient to fight malignant disease and its treatment in the widest sense. A philosophy of society oriented to what I like to define as "ethical individualism" gives sufficient freedom to men to develop a degree of responsibility and initiative which is essential for the profiting from a sophisticated, protective health care. I would propose that we introduce the basic knowledge of protective and preventive medicine (and this also affects cancer disease very much) into the program of biology lessons in schools. It was with great personal joy that I learned of a group of 250 Danish schoolteachers who gave this idea a most favorable consideration.

People look for an alternative to today's narrowminded mechanistic understanding of health care, disease and therapy. This is what makes it most rewarding to follow new leads and avenues in helping to pioneer a new concept of health care generally a new approach to cancer specifically.

In closing, I should like to refer my readers to the Appendix of this paper for additional relevant information.

Acknowledgments

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APPENDIX

Table 1

Non-toxic Long-term Cancer Therapy Program

A list of the comprehensive eumetabolic program for the basic treatment of cancerous disease (Nieper Regimen).

In general a program of this kind should be carried out for an unlimited time. It can be combined with any kind of surgical intervention, or with chemotherapy or radiotherapy in subtoxic ranges.

However, it must be understood that a comprehensive therapeutic program of this kind must be a must be adapted by the art of the physician to his respective patients. The various parameters of diseases-host-relationship many vary drastically. As a matter of fact, there is not one patient like another. The deviations of the various factors and vectors are too important to fit into commonly applied biostatistics. R.J. Williams' work provides us with ample evidence of this reality of biological individuality.

A. Begin at once after first diagnosis, after surgery. Regardless of stage.

Combination with surgery, radiotherapy, toxic chemotherapy, and continued therapy thereafter for an unlimited length of time.

B. Methods:

1. Tumor inhibition without systemic toxicity:
   a. Subtoxic doses of conventional chemotherapy, e.g., 1-PAM (Alkeran) 1 mg. daily, Ixoten, 5-FU
   b. Hydroquinones, e.g., arbutin 0.5 g. daily
   c. Mandelonitriles, e.g., 1-isom.0am., dhurrin, cassavin
   d. Copper gluconate, zinc orotate at high dosage (Duncan)
   e. Hormone therapy

2. Activation of immune defense system:
   a. Zinc gluconate, beta-carotene (to activate lymph and thymus system)

b. Magnesium chloride (or orotate) to activate macrophages
c. Potassium, magnesium-aspartate to increase energy rich phosphates, to improve membrane polarization
d. BCG vaccination (or C. parvum), e.g., Pasteur-BCG sc. 0.1-1 mg. in 5 cc. Ringer solution, 6-8 sc. Injections
e.. Gamma globulin

3. Enzymic degradation of shielding/blocking factors (HCG-like mucoids):
   a. Anavit F3, or Ananase 100, Traumanase forte, Bromelain Nadrol, Extranase
   b. Beta-carotene (carrot juice with cream), acidification, ozone 30 mcg. ED lactic acid, mistletoe (?)
   b. Raising of resonance (acetaldehyde, rubidium, selenium), removal from alternating field

4. Additional measures include recalcification with calcium orotate, calci-retard, Minalka, Vigantol Therapy for heart and liver, etc.

Table 2

Results of a Program from 1974-1977

These results concern patients who came for ambulatory treatment still in a state to walk about two miles, but, by their findings and their respective history of disease, belong to the group of "uncurables."

In those years (1974-77) we did not have the enzymatic factors present in "Anavit" and we had a far less developed understanding of the mechanism of action of the nitrilosides, a lesser development of the BCG vaccination technique, and no knowledge of the Tumostrone-like effect of Prednisone.

The understanding oncologist will realize that this eumetabolic therapeutic program has to be taken as a proposal which may be modified as our knowledge and experience progress. However, the fundamental concept of a long-time treatment which has to be started immediately after the establishment of a malignancy diagnosis, whatever the kind, and the conduction of such a therapy for an unlimited time, stays the same.

* Positive response means 18 month survival with considerably improved health.	Ratio of Pos. Response*
Cylindroma, transient cell, recurrent after neck dissection	
- Reginal metastasis	3/3
- Lung metastasis	0/4
- Liver metastasis	0/1
Mixed tumors of the parotis gland	5/5
Skin cancers	6/6
Carcinoma of tonsils, metastasis	1/5
Carcinoma of tongue (cigar smoker)	1/3 (with Geigy GP)

Collum carcinoma of uterine wall, recurrent	2/5 (plus Geigy GP: 1/1)
Corpus carcinoma in endometriosis	1/2
Colon cancer (carcinosis, polyposis)	2/3
Lung carcinoma	3/13 (with C. parvum: 1/1)
Pancreas carcinoma	0/7
Stomach carcinoma	3/9 (1 inoper., 2 recur.)
Lymphomas	19/23
Sarcomas	11/16 ("early Ewing": 2/2)
Mammary carcinomas, including Lymphangioma disease	14/37 (lymphangioma: 0/12)
Prostate carcinoma	6/8
Primary brain tumors	6/9
Ovarian carcinoma	5/8 (2/3 after ileus opening by Intralipid-ozonide)
Colon-rectum carcinoma, recurrent	7/10
Colon carcinoma with liver metastasis	1/16
Kidney carcinoma, hypernephroma	0/8
Bladder carcinoma	5/7 (0/2 penetrating)
Seminoma	2/4 (0/2 with lung metastasis)
Esophagus carcinoma	0/2
Total	103/214

Table 3

Non-Toxic, Eumetaboloc, Long-time Therapy Partly in Combination with Subtoxic Radiation or Chemotherapy

This table show data which can only be taken as an orientation. It makes evident however, that the chances increase the earlier the therapy is commenced.

Survival with quasi-cure, after 3 years of observation:

In-Patients:	Less than 16%	(of over 80 Patients)
Out-Patients:	More than 48%	(of over 240 patients)
Out-Patients, early stages	More than 78%	(of over 78 patients)

Characteristic feature:

After 18 months the survival curve levels! (Mathe, Paris: After 20 months) N = 277

Conclusion: Begin protective therapy as early as possible, for an unlimited length of time. Radiotherapy and chemotherapy by themselves do not fulfill the requirements of a protective therapy.

Table 4

Selection of Laboratory Tests Which Can Be Performed Easily in a Physicians' Office

The significance of these tests is discussed in the following tables

It is essential to compile immune defense parameters which give an insight into the disease-host resistance-balance of the patient. However, whatever the testing program, it needs the important experience of the physician to interpret, an ability that takes years to develop.

1. Enzymes: LDH, gamma-GT, Apase, Spase, and other enzyme substrate tests.

2. Sed. Rate, Heitan test (lat. hemolysis and inhibition of fibrin formation).

3. Lymphocyte separation into 3 sizes, evaluation of turnover and of the total number of naked nucleus forms and small lymphocytes.

4. Whole blood analysis: Evaluation of increase of sodium and calcium, copper extrusion, magnesium deficiency, zinc deficiency, decreased levels of phosphate and iron.

5. Test of resonance potential by measurement of resistance (k-ohm) and capacitance (micro-farad), cardial electrogensis (so-called biotonometry).

6. Skin reaction to BCG, or tuberculine.

TABLE 5

TREND OF THE RATIO BETWEEN PROTEOLYTIC AND PHYSIOL. ACTIVITY OF BROMELAIN DURING ITS DEACTIVATION.
(Prepared by Dr. S. Taussig, CCI, Honolulu, HI)

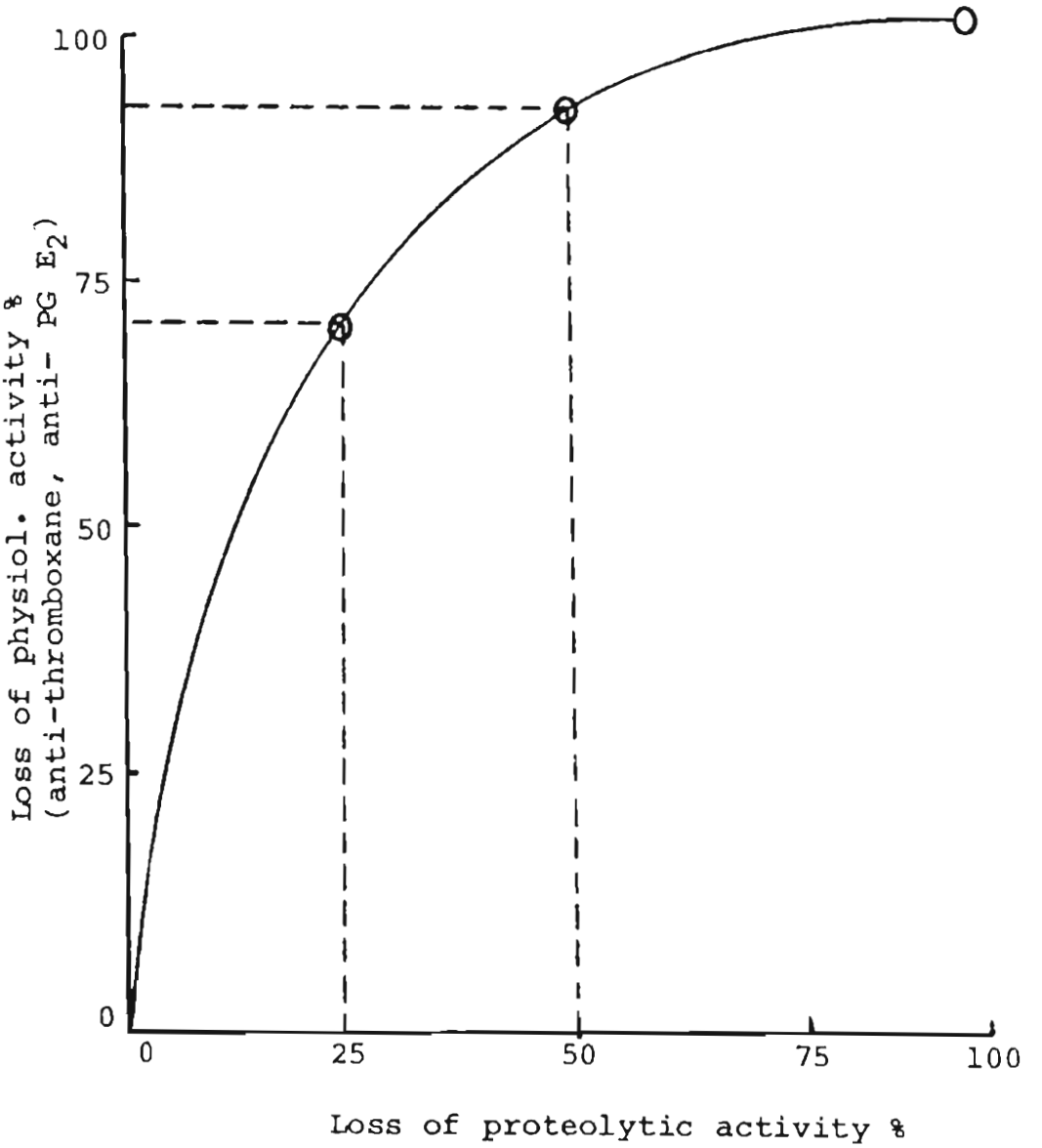


TABLE 6

Separation of Lymphocytes for Size in a White Blood Cell Differential

A lack of naked nucleus forms and a decrease of the small forms of lymphocytes combined with a low leukocyte count indicate an imminent exhaustion in cell-bound immunity in cancer patients. In cancer patients having blood type A or A_1 the lymphocyte infraseparation can be normal despite advanced malignancy. This indicates a tolerating of the malignancy due to the similarity of the malignant A-like antigen with the patient's proper blood type.

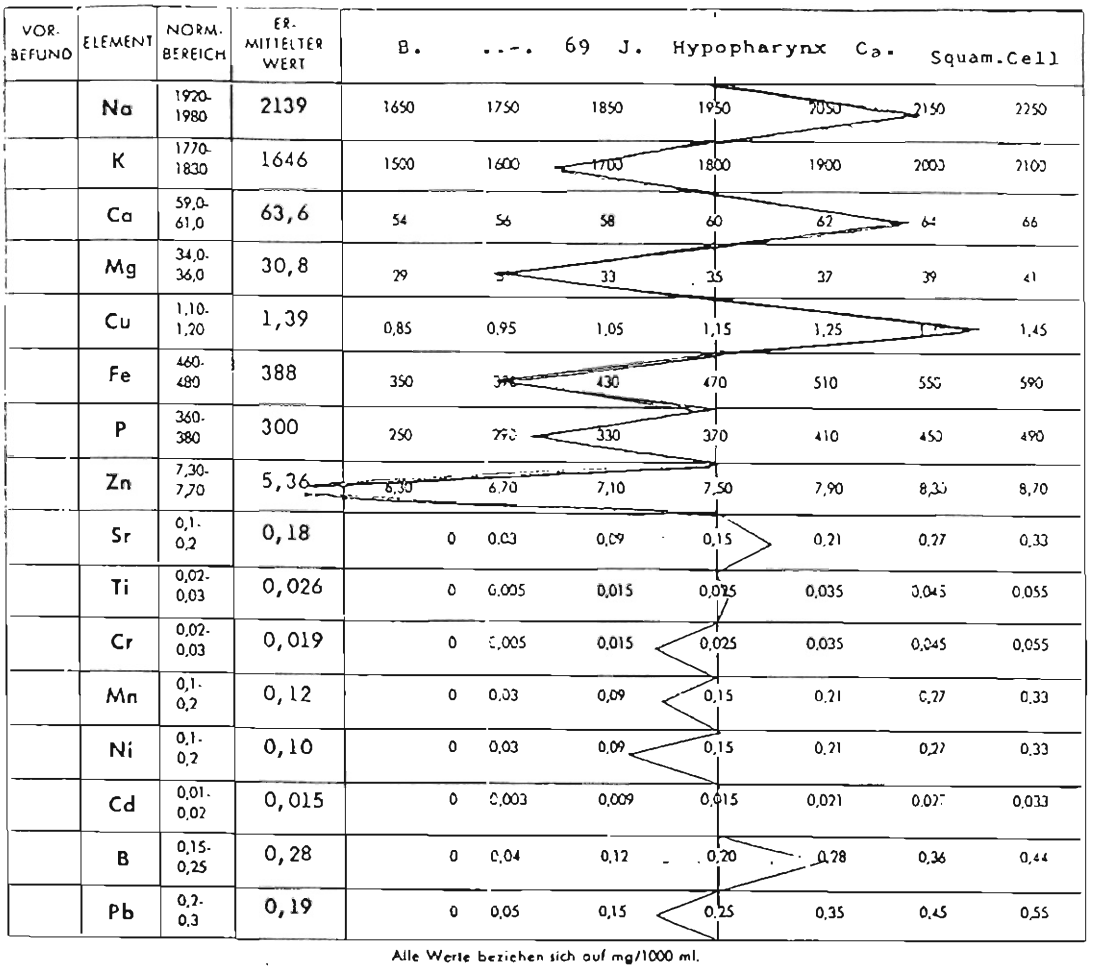
Normal	Malig. A_1	Imm. Exhaust (Ca)	Improvement	Imm. Dominance
Hb:.....14.1.	Hb:.....13.8.	Hb:.....9.4..	Hb:.....11.9.	Hb:.....12.8.
Ery:.....4.2.	Ery:.....3.9.	Ery:.....3.0..	Ery:.....3.6.	Ery:.....3.4.
Leuko:....6300...	Leuko:....3400...	Leuko:...2800....	Leuko:....4200...	Leuko:....8400...
basoph:.....	basoph:.....	basoph:.....	basoph:.....	basoph:.....
eosinoph:.....	eosinoph:.....	eosinoph:.....	eosinoph:....2...	eosinoph:....3...
Jugendf:.....	Jugendf:.....	Jugendf:.....	Jugendf:.....	Jugendf:.....
stabk:.....	stabk:.....	stabk:.....	stabk:.....	stabk:.....
segmk:.....	segmk:.....	segmk:.....	segmk:.....	segmk:.....
Lympho:.....42...	Lympho:.....41...	Lympho:....16....	Lympho:.....36...	Lympho:.....42...
nacktk.:.....7...	nacktk.:.....8...	nacktk.:....-....	nacktk.:.....-...	nacktk.:.....6...
klein:.....12...	klein:.....10...	klein:.....3....	klein:.....12...	klein:.....14...
mittl.:.....23...	mittl.:.....23-..	mittl.:....13....	mittl.:.....24...	mittl.:.....22...
Mono:.....2...	Mono:.....	Mono:.....	Mono:.....3...	Mono:.....6...
Promyelo:.....	Promyelo:.....	Promyelo:.....	Promyelo:.....	Promyelo:.....
Myelo:.....	Myelo:.....	Myelo:.....	Myelo:.....	Myelo:.....
Meta:.....	Meta:.....	Meta:.....	Meta:.....	Meta:.....
Blasten:.....	Blasten:.....	Blasten:.....	Blasten:.....	Blasten:.....

TABLE 7

Result of Whole Blood Spectrographic Analysis

A decrease to less than 5.8 mg/l of zinc in the whole blood analysis is mostly correlated to an extensive paralysis of cell-bound immunity. Our observations suggest that the decrease of zinc is due to both (a) waste by immune challenge, and (b) consumption of zinc by growing tumors.

The increase of copper is correlated to both the growth speed and the extent of the tumor. In lymphomas the increase of copper is even more important than in epitheliomas.



Alle Werte beziehen sich auf mg/1000 ml.

TABLE 8

Metastas. Breast Cancer

Severe damage of the organism expressed by the results obtained by whole blood analysis. This is not only the consequence of the malignant disease alone but also of highly toxic chemotherapy (Adriamycin in high doses, followed by cis-platinum). Severe neural, vestibular, emetogenic, and myocardial side effects. Hopeless prognosis: therapeutically uninfluenceable.

VOR-BEFUND	ELEMENT	NORM-BEREICH	ER-MITTELTER WERT	D. ... Mamma-Ca. 53 J. Cis-Platinum follow. 3 courses of Bonadonna.						
	Na	1920-1980	2360	1650	1750	1850	1950	2050	2150	2250
	K	1770-1830	1100	1500	1600	1700	1800	1900	2000	2'00
	Ca	59,0-61,0	75,9	54	56	58	60	62	64	66
	Mg	34,0-36,0	33,7	29	31	33	35	37	39	4
	Cu	1,10-1,20	2,10	0,85	0,95	1,05	1,15	1,25	1,35	1,45
	Fe	460-480	316	350	390	430	470	510	550	590
	P	360-380	250	250	290	330	370	410	450	490
	Zn	7,30-7,70	5,70	6,30	6,70	7,10	7,50	7,90	8,30	8,70
	Sr	0,1-0,2	0,10	0	0,03	0,09	0,15	0,21	0,27	0,33
	Ti	0,02-0,03	0,029	0	0,005	0,015	0,025	0,035	0,045	0,055
	Cr	0,02-0,03	0,015	0	0,005	0,015	0,025	0,035	0,045	0,055
	Mn	0,1-0,2	0,13	0	0,03	0,09	0,15	0,21	0,27	0,33
	Ni	0,1-0,2	0,11	0	0,03	0,09	0,15	0,21	0,27	0,33
	Cd	0,01-0,02	0,010	0	0,003	0,009	0,015	0,021	0,027	0,033
	B	0,15-0,25	0,26	0	0,04	0,12	0,20	0,28	0,36	0,44
	Pb	0,2-0,3	0,19	0	0,05	0,15	0,25	0,35	0,45	0,55

Alle Werte beziehen sich auf mg/1000 ml.

TABLE 9

The Eumetabolic Approach

Breast cancer with repeated local metastisation in the first three years after incomplete mastectomy. Local recurrences were surgically removed (Lumpectomy) or regressed by themselves. Patient now free from recurrence for three years (cosmetic build-up of the breast in 1978, Silbersee Hospital). The high zinc-copper ratio is practically always related to a static or regressive behavior of malignant tumors. In this case the eumetabolic Nieper Regimen was applied for more than six years without any interruption. This program also included the zinc-carotene therapy.

ELEMENT	NORM. BEREICH	ER. MITTELTER WERT	D	J..., 49 J., Mamma-Ca.,Rezid., cured					
Na	1920-1980	190?	1650	1750	1850	1950	2050	2150	2250
K	1770-1830	17??	1500	1600	1700	1800	1900	2000	2100
Ca	59,0-61,0	5?,9	54	56	58	60	62	64	66
Mg	34,0-36,0	36,1	29	31	33	35	37	39	41
Cu	1,10-1,20	1,0?	0,85	0,95	??	1,15	1,25	1,35	1,45
Fe	460-480	47?	350	390	43?	47?	510	550	590
P	360-380	40?	250	290	33?	370	410	450	490
Zn	7,30-7,70	?,0?	6,30	6,70	7,10	7,50	??	8,30	8,70
Sr	0,1-0,2	0,1?	0	0,03	0,09	0,15	0,21	0,27	0,33
Ti	0,02-0,03	0,021	0	0,005	0,015	0,025	0,035	0,045	0,055
Cr	0,02-0,03	0,01?	0	0,005	0,015	0,025	0,035	0,045	0,055
Mn	0,1-0,2	0,16	0	0,03	0,09	0,15	0,21	0,27	0,33
Ni	0,1-0,2	0,13	0	0,03	0,09	0,15	0,21	0,27	0,33
Cd	0,01-0,02	0,014	0	0,003	0,009	0,015	0,021	0,027	0,033
B	0,15-0,25	0,?7	0	0,04	0,12	0,20	0,28	0,36	0,44
Pb	0,2-0,3	0,2?	0	0,05	0,15	0,25	0,35	0,45	0,55

Alle Werte beziehen sich auf mg/100 ml.

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ANTITUMOR ACTIVITY OF BENZALDEHYDE[1]

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Summary

Ninety patients with inoperable carcinoma in the terminal stages and 12 patients in serious condition with other tumor types were given benzaldehyde in the form of B-cyclodextrin benzaldehyde inclusion compound (CDBA) orally or rectally at a daily dose of 10 mg/kg divided in four doses. Toxic effects, including hematologic or biochemical disturbances, were not seen during long-term successive administration of CDBA. Fifty-seven of the patients treated were evaluable; 19 patients responded completely and ten patients responded partially (more than 50% regression). For all responding patients longer response durations were associated with longer CDBA treatment periods. Treatment of squamous cell carcinoma induced the cancer cells to change into a conglomeration of pearls (the well known product of differentiation) which consisted of keratinized normal squamous cells.

(Cancer Treat Rep 64: 21-23, 1980)

We have previously shown that the volatile fraction absorbed by active charcoal from the fig has effective activity against Ehrlich carcinoma of mice. Therefore, between 1965 and 1975, 83 cancer patients were treated iv with the volatile fraction of the fig. This fraction proved to be effective in 12 patients, four of whom responded completely, while no appreciable effect was noted in the other 71 patients. Having achieved an appreciable effect with the volatile fraction of the fig, we studied the carcinostatic component of the fig and identified the effective agent as benzaldehyde (1). Benzaldehyde has shown some antitumor activity against Ehrlich carcinoma, adenocarcinoma 755, and spontaneous hepatoma in mice; however, it did not have activity against several other implanted tumors of mice (1).

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Reference: 1. Takeuchi S, Kochi M, Sakaguchi K, et al. Benzaldehyde as a carcinostatic principle in figs. Agric Biol Chem 42: 1449-1951, 1978.

Table 1. --Spectrum of diseases treated with benzaldehyde and response to therapy

	No. of patients	No. of responses				
		Complete	Partial	Improvement	Stable disease	Progression
Carcinoma						
Tongue	4	4				
Parasinus	1		1			
Parotid	1	1				
Lung	9	3	3		1	2
Breast	2	1		1		
Esophagus	2		1		1	
Stomach	10	2		8		
Liver	6		2	3	1	
Pancreas	4	1		2	1	
Colon	1	1				
Rectum	3	1		2		
Testis (seminoma)	1				1	
Kidney (Grawitz's tumor)	2			2		
Brain	3	1			2	
Gall bladder	1	1				
Transitional cell	1		1			
Acute myelocytic leukemia	2	2				
Malignant lymphoma	2		1	1		
Multiple myeloma	1	1				
Leiomyosarcoma	1		1			
Total	57	19	10	19	7	2

to normal. The complete remission has lasted more than 4 months so far, and there were no recognizable toxic effects during the treatment.

Despite persistent oral administration with CDBA (approximately 500 mg/kg of benzaldehyde) for more than 1 year, it has proved nontoxic and does not adversely affect hepatic or renal functions, nor does it cause side effects such as leukopenia, thrombocytopenia, oligocythemia, anorexia, vomiting, and depilation, many of which are associated with cytotoxic anticancer agents. The responses continued during the treatment with CDBA, but the optimal dose of benzaldehyde has not yet been established. However, various types of tumor cells indicated varying degrees of sensitivity to benzaldehyde. The dose of 30 mg/day proved to be remarkably effective against leiomyosarcoma. However, the effective dose for squamous cell carcinoma or adenocarcinoma was found to be more than 300 mg/day. We suggest that CDBA should be further evaluated with regard to both mechanism of action and clinical efficacy.

Methods

Since benzaldehyde is only slightly soluble in water, it is not suitable for iv, im, or sc injection. The B-Cyclodextrin benzaldehyde inclusion compound (CDBA) ($C_{49}H_{76}O_{36}$) is a preparation suitable for both oral and rectal administration. CDBA was used mainly in the form of a tablet or suppository. The patients were treated with 10 mg/kg of CDBA in four divided doses a day. The amount of benzaldehyde contained in CDBA is approximately 8.3%, therefore 6 g of CDBA was required in order to provide 500 mg of benzaldehyde.

Results

All patients had histologic confirmation of their diagnosis. No known curative treatment existed for these patients, and there was no palliative treatment which we thought would be of benefit to them. All but four patients had received previous chemotherapy, and 15 had received prior radiotherapy. The patients were observed daily for toxicity and side effects. Hematologic and biochemical examinations were performed once a week. Baseline studies included physical examination, measurement of body weight and height, cbc, blood urea nitrogen, creatinine, bilrubin, alkaline phosphatase, SGOT, uric acid, serum protein, albumin, urinalysis, electrocardiogram, and measurement of tumor size. Bone marrow aspirations were done in leukemic patients.

Fifty-seven evaluable patients, 32 men and 15 women, with far-advanced malignant neoplasms were included in the study. They ranged in age from 4 to 83 years with a mean age of 53 years. The spectrum of diseases treated with CDBA is detailed in table 1. The clinical study with CDBA started 2 years and 5 months ago. All patients were observed for periods ranging from 2 weeks to more than 2 years. Three of four patients with squamous cell carcinoma of the tongue had received prior radiotherapy and chemotherapy. These patients were all in serious condition at the start of the treatment. After 1.5-6 months of treatment with CDBA, all patients with tongue cancer obtained complete remission. It is very interesting that the cancer cells of these four patients were extremely differentiated histologically and changed into a conglomeration of pearls which consisted of keratinized normal squamous cells. Another patient with squamous cell carcinoma of parasinus and lung metastases obtained a partial response after 3 months of treatment with CDBA. The lung tumors almost disappeared and the gigantic tumor of the temporal area also markedly improved. In this patient, the cancer cells were also changed into a conglomeration of pearls which consisted of keratinized normal squamous cells. The responses of these five patients continued during the successive treatment with CDBA. There were no recognizable toxic effects from the treatment. An 83-year-old woman with adenocarcinoma of the rectum underwent an operation for an artificial anus because of the complete intestinal obstruction resulting from the rectal tumor. She had not received prior radiotherapy or chemotherapy. She responded completely and the response lasted 2 years and 1 month during the successive treatment with CDBA. As a result of this response stools now pass through the natural anus and the patient is enjoying normal life. Moreover, no recognizable toxic effects were observed. Here, we found that the responsive adenocarcinoma cells were differentiated and changed into ghost cells simultaneously. A 4-year-old boy with acute myelocytic leukemia previously received a 10-month treatment with Adriamycin, cytosine arabinoside, vincristine, and prednisolone, with methotrexate as maintenance therapy, but no complete remission occurred. Ten days after the initiation of the treatment with CDBA, he obtained complete remission and his platelet count, leukycyte count, and hemoglobin level returned

New Horizons in Non-Toxic Cancer Therapy: Beta-Carotene, Lithium Orotate, Anavit, Bromelaine, Benzaldehyde, Tumosterone, DHEA, and Ascorbate

Hans Nieper, M.D.*

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INTRODUCTION

Only four years have passed since the McGovern Committee (1978) of the United States Senate overtly expressed reservations over the prevailing and misleading priorities in cancer therapy and research. However, control of this disease has not significantly improved since then or since 1955 for that matter.

INTERFERON

Interferon research has been stimulated by such observations and it does qualify as a non-toxic treatment which can be carried out for an unlimited time at any stage of the disease. With the orthodox, toxic chemotherapy and radiation approaches we have the situation of the disease outliving the possible duration of therapy itself. It appears that the initial hope surrounding interferon therapy however will have to be generally reassessed. Interferon appears to inhibit the replication of viruses in cells which have received the interferon signal and it remains difficult from such action to understand why interferon acts in a tumor situation in an inhibitive manner. Does it stop the transmission of LDH - positive subcellular oncogenic particles known to be essential for metastization? We should note in this connection that the spread of tumor cells alone is not sufficient to produce metastases!

Cell bound zinc carriers, like zinc orotate and zinc aspartate, are also known to stop viral replication in cells and to inhibit the activity of thymidine kinase. The antitumor effect of such zinc compounds appears to be about in the range of what is reported for interferon; however, the latter is extremely more expensive.

Beta-carotene is a very inexpensive and in my opinion absolutely essential component of effective cancer therapeutics. Like embryonic cells, tumor cells produce a mucoid substance with shield-like, HCG-like properties which repel cell-bound defense immunity. Furthermore, this oncogenic mucoid in the blood stream appears to blind transformed lymph cells where the mechanism of this blocking effect appears to be electrical in nature; rather, than of chemical specificity as shown by the work of Hause, Patillo, and Mattingly (1970). Moreover, this oncogenic mucoid shield possesses in its amino acid groups hydroxyl-amines which render it alien to the host's recognition system and substantially retards its excretion by the kidneys resulting in the maintenance of high levels of this blocking factor in the organism.

It appears that one of the best ways to decompose this blocking mucoid protein is exposure to excessive electric charges which inactivate it's immune repelling or blinding capacities. As Jacques (1979) has argued and shown, heparin is known to work by such an electrical mechanism and we have successfully applied it to cancer patients for this reason. The problem with long term heparinoid application is that it needs to be injected and may involve liver disturbances.

BETA-CAROTENE

Lewis (1977) observed that beta-carotene was also found to mediate such electrical charges and since beta-carotene becomes deposited in tissues and fluids of the patient as when taken with fatty emulsions like cream, it appears to this investigator to work around the clock to inactivate the above mentioned blocking mucoid. This is extremely important since the reformation of this blocking mucoid takes only some ten to twenty

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minutes. We have found that beta-carotene has a drastic and highly significant unblocking effect. It gets inactivated and decolored by the blocking mucoid and it is therefore quite necessary for the patient to consume a quantity of beta-carotene sufficient to produce a yellowish stain to the skin; otherwise, the carotene cannot be considered to dominate the blocking mucoid protein substance.

Effective beta-carotene concentrations significantly increase the consumption of naked nuclear lymphocytes and facilitate the take of BCG test reactions as well as of therapeutic BCG grafts. The merits of carotene therapy in cancer patients have already received the attention of the mass media, but have not yet been seriously considered by community of orthodox oncologists. We introduced the beta-carotene therapy into cancer therapy routine in early 1972, just 10 years ago.

LITHIUM THERAPY

In more recent months I was quite amazed to find articles in the medical press demonstrating the profitable effect of lithium therapy in the activation of White Blood Cell production; especially, where suppressed by toxic, chemotherapy: here lithium carbonate was used. Since Hamilton's (1969) findings were reported we have employed lithium in cancer therapeutics in Germany. Hamilton (1969) reported at a Baden-Baden Cancer Congress many years ago the profitable effect of lithium succinate (Verdun) to dry pleural effusions, by replacing Na with Li and counteracting water retention.

These days we use lithium orotate for this purpose at dose levels of 450 mg per day and of course with the orotate compound there is no need to check the blood serum Li levels in contrast to the therapy with lithium carbonate (Lyman, 1980). We find the lithium orotate very effective in increasing the granulocyte and especially the monocyte counts. Monocyte counts may actually increase up to 500-600/cc^3. It is difficult to understand why lithium boosts bone marrow function the way it does, but it is quite a real effect. The lithium orotate counteracts endocellular sodium retention and perhaps this mechanism is involved.

PANCREATIC ENZYME PREPARATIONS

Pancreatic enzyme preparations are known to *destroy specifically leucemic cells* when applied intravenously. This specificity also seems to be determined by different electrical membrane properties of the malignant cells. Normal and living cells largely repel pancreatin which is the reason why it is very poorly absorbed from the intestine. However, plant enzymes like bromelain get reabsorbed to a very high degree, up to 90%, when taken on an empty stomach.

BROMELAIN

As Taussig (1975) has shown, it is especially the glycoproteolytic fractions of the bromelain enzymatic complex, as well as fractions active in decomposing prostaglandin E2 and thromboxane, that are especially active factors in cancer therapeutics. These factors are relatively labile and demand a careful extraction procedure. Prostaglandin E2 inhibits the antimalignant activities of the macrophages and monocytes. Thus, like Beta-carotene, bromelain - which is carefully prepared - also has a deshielding effect on tumor cells, but on an enzymatic basis.

BENZALDEHYDE

By the summer of 1970, we find Dean Burk expressing his opinion that both cyanide and benzaldehyde are the active antimalignant principles of the mandelonitriles (e.g., the controversial laetrile being such an example). It appears that an irrational, anti-laetrile climate in some circles resulted in a failure of the fuller and more adequate exploration of the benzaldehyde effect; especially, in conjunction with a broad band, biological medicine intervention in cancer treatment. We also neglected in our own research the study of the benzaldehyde effects; instead, turning our attention to synthetic, non-sugar mandelonitriles.

Subsequently, Japanese workers, Kochi and Takeuchi (1980) found that active anti-cancer principle of figs was a benzaldehyde. It also appears that fig lumps were reported in the Bible as being curative for exophytic cancers; which is of historical interest in this context. These Japanese investigators have subsequently presented extensive pharmacological and clinical data concerning their initial discovery and we have also collected clinical data confirming their work. It appears that benzaldehyde is one of the most valuable anticancer substances which is currently and practically available.

The closely related substance, acetaldehyde (5% in alcohol; 25ml/d) has been routinely applied in our clinic for the treatment of melanotic melanoma since 1977 in the context of the so-called Ehrenfried Regimen for the treatment of melanoma. For this indication, acetaldehyde is clearly superior to benzaldehyde. Under present investigation is the question of whether this may also be the case for prostate cancer and even larger tumors.

Benzaldehyde has been shown experimentally to decrease drastically the uptake of thymodine and

adenine, both with SV-40 transformed cells and transplantable cancer cells. The concentration of amino-acids and aminobases in these cells decreases, but the concentration of tryptophane increases which is a typical sign for reduced malignancy. Normal cells are not affected, and the formation of ATP is decreased in cancer cells with no toxic side effects being noted whatsoever.

The clinical data show that numbers decrease in volume, that the LDH enzymes drop sharply; that the BSR decreases; that life duration of the RBC increases; that latent hemolysis decreases; that hemoglobin levels increase; and that there is a significant effect against tumor-conditioned pain. Furthermore, benzaldehyde has direct unblocking characteristics at a dose range from 200 to 1400 mg/day orally or i.v. (perfusions). No side effects have been noted with the exception of a higher need of the myocardium for thiamin and for transit-calcium (ca-orotate). C^{14} labelled benzaldehyde shows that this substance is connected to the cell membrane and especially the mitochondrial membranes, and that effects of redifferentiation are also observed (Kochi and Takeuchi, 1980).

From our observations we conclude that the least we can expect is a paralytic effect on tumor growth which can be carried on for an indefinite period of time. The arrest of the tumor progression permits an intervention with a scientific immunotherapy approach to arrest the disease itself. This takes time: about eighteen months on the average. When the tumor is relatively large the therapy with benzaldehyde, especially where dosage is insufficient, may result initially in the activation of tumor growth. This paradoxical influence was observed both by Japanese and German workers. It appears to me that this paradoxical effect of stimulating tumor growth under the conditions just specified, may be due to the partial inhibition of the tumor forming cells which then throws up tumor enhancing substrate acted upon by the remaining tumor forming cells and a rebound surge results in the residual cell population not sufficiently suppressed or affected by the benzaldehyde treatment. Benzaldehyde is relatively inexpensive; and must itself be given in a stabilized form. It is not possible to administer sufficent quantitites of benzaldehyde by giving amygdalin, laetrile or other mandelonitriles alone!

TUMOSTERONE

As for surgery, radiation and chemotherapy, they may be expected to yield a "cure-like" remission only when these procedures are supported by the "tail wind" of a well functioning and lasting immune defense capacity of the host. In our concentration on the invasiveness of the cancer we sometimes forget, as did Pasteur, of the greater importance of host resistance in such a disease equation. This principle also holds for benzaldehyde treatment; however, unlike toxic, chemotherapy, benzaldehyde even enhances and unblocks or releases the immune mechanisms to yield a more synergistic and integrated therapeutic strategy! It is interesting to note in passing that in the 1920s the American, Edgar Cayce in his own way had predicted that the ultimate control for cancer would come from the bitter almond principle; the benzaldehyde fraction! However, I am confident that the concept of tumosterone - which I will discuss below - will carry us even further than even Cayce had ever imagined.

Klemke (1977) discovered *tumosterone* and showed it to be a well defined steroid functioning as an endiol and connected to a tetrahydrofurane which is known to have a high affinity to cellular endoplasmic reticular structures as well as to the nuclear membranes. Tumosterone seems to develop out of thymosterine, the "grandfather" of which is ergocalciferol. There appears to be important evidence that adrenal function is related to the course of malignant disease states and renal hypertension may be related to spontaneous regressions of cancer as well, as shown by the work of Schirrmacher (1978). Characterologically aggressive women suffering from breast cancer, moreover, appear to have better life expectancies than shy, timid individuals which may also implicate such endocrine involvements. Vitamin C, which seems to counteract malignancy, is a potent activator of the adrenal gland as well. Adrenal insufficiencies; e.g., vitiligo, are related to higher tumor incidence.

It has been known from cloning experimentation that the cell nuclei of the Leopard Frog (Kidney tumor tissue), or of the mouse teratocarcinoma, carry a normal genome and develop into normal tadpoles in sharp contrast to what has been commonly accepted and known, (McKinney et. al, 1969). Mintz and Illmensee (1975) were able to produce normal mice from mice with teratocarcinoma parents suggesting that the typical chromosomal aberrations in cancer cells must be of a superimposed or mediated falsification of genetic information which may otherwise be intact. Klemke (1977) has pointed out how the superimposed falsifications on the gene level may develop beginning with defined alternations on the level of mitochondrial membranes. Considerable biochemical knowledge is required to understand the Klemke conceptualization which in my view constitutes a dramatic forward step in modern cancer research.

Tumosterone, discovered by Klemke (1977) is apparently injected into the cancer cell by means of

cell bound immunity requiring the contact of the killer lymphocyte with the tumor cell. When injected into the cancer cell, the tumosterone is thought to go directly to the chromatin. More recently Matter (1979) has shown in the laboratories of Hoffman-La Roche at Basle that a water-insoluble substance injected by the killer lymphocytes goes across the cancer cell plasma membrane to the nuclein. This effect of the tumosterone may either result in a re-differentiation of the tumor cell genome or the deliberation of a gene-induced mechanism which may lead to the self-destruction of the tumor cell itself by the freeing of lysosomal enzymes.

DHEA

In addition to this, another steroid, DHEA (dehydroepiandrosterone) has been shown by *Arthur Schwartz* and cooperators to very effectively counteract malignant cell metabolism. It seems that this steroid is an important component of the body's anti-cancer surveillance system as well since it had been shown that women showing up with breast cancer have an abnormally low DHEA level in their blood. A low level of DHEA leads to lack of decisiveness and poor initiative as well as latent depression in the patient. These are among others typical psychostructural findings in cancer patients. Furthermore, the low DHEA level is correlated to a very low incidence of criminal potential, as we have shown. On the other hand, the psychiatrist of a German hospital which is exclusively reserved for the treatment of criminals feels that those patients show an abnormally low incidence of cancer. This, by the way, is also known from schizophrenics.

Since early 1982 we are most actively engaged in investigating the DHEA cancer relations, and the possible use of DHEA to better control cancer. DHEA is exhausted by the onset of the malignant disease itself. It is not augmented by the onset of the disease and, therefore, does not fit into the classical pattern of the immuno defense. DHEA may explain why malignant disease stays static in it's incidence despite increasing environmental challenges: cancer is more readily determined by the endogenous surveillance systems or their failure than so far thought. Our therapeutic attempts, therefore, have to follow this perception.

DHEA is also decreased by the stress of a surgical intervention, by psychic stress, by diuretics, and by the lack of vitamin C, vitamin E, zinc, magnesium, selenium, and cholesterol! We have found that a tripertenoid, squalene, seems to be an early substrate precursor of DHEA since it is helpful to increase the serum DHEA levels. In addition to this, squalene drastically increases the polarization of cell membranes thus apparently increasing the functioning of cell bound immunity. From the phylogenetical standpoint, squalene is a very "old" substance. In 1981 a broad public had been informed by the press that sharks almost never develop malignant cancers. One liter of shark liver oil contains 700 g! of squalene. It is worthwhile to mention that also the shark is phylogenetically very "old."

CESIUM, RUBIDIUM, AND GLUTATHIONE

The cancer cell is determined by showing an abnormally low pH level, the concentration of the H + ions in the plasma of cancer cells is potentially too high. The relatively low pH results in the activation of enzymes - e.g. of oncogenic phosphatases - which assure a higher malignant potential and aggressiveness of the cancer cell.

The concept to inactivate H + ions inside of the tumor cells is, therefore, an eloquent one.

It had been shown by the eminent American physicist, Keith Brewer, that cesium and rubidium are taken up by tumor cells and then lead to an increase of the tumor cell pH. These elements inactivate ionic hydrogen.

Indeed, the researchers *Messiha and El-Domeiri* in the Texas Tech University Medical School at Lubbock have shown, that cesium is most effective in the supression and regression of Sarcoma-I in mice.

We have in the meantime shown that cesium tetrachloride is effective in the management of most problematic tumors, e.g. of advanced bronchogenic carcinoma with bone metastization. Indeed, for this kind of cancer, cesium seems to be for the time being a treatment of choice.

The cesium therapy of cancer - and possibly the cancer prevention by cesium - is a very pragmatic but a very intelligent one. It is inexpensive and non-toxic over unlimited time.

Furthermore, it is worthwhile to mention that the application of pure urea and of the sulfurpeptide, glutathion for the treatment of cancer seems to have functional similarity to the cesium therapy.

PREDNISONE

The tumosterone effect may be somewhat imitated by the hormone prednisone. Prednisone, in contrast to other cortisones, has a certain similarity to tumosterone with respect to chemical structure and function. This apparent similarity is limited to prednisone and does not include the other cortisones which may explain the particiular value of prednisone in cancer treatment. In view of what has been said concerning tumosterone, it

would appear that immune capacity would demand the concentration of the tumosterone in the lymph cells themselves and that immune cell interaction alone would not do the job! This may indeed explain why until recently immunologists were somewhat reluctant to admit to the existence of an anti-tumor surveillance system of immunity. However, the fact that cancer exists in uncounted people in a dormant or in situ form, and that in other individuals it becomes slowly progressive; while in others, never develops at all indicates that the organism provides an endogeneously produced surveillance principle to suppress cancer genesis. We are witnessing the development of important evidence that tumosterone is such an agent!

IMPLICATIONS FOR ADRENAL FUNCTION

A possible futuristic tumosterone therapy of cancer might constitute the potentiation of the natural mechanism serving to protect us all. In connection with possible tumosterone effects, we made a very interesting clinical finding recently: a lady, age 40, with left breast removal three years earlier because of malignancy and free from any sign of malignancy, and being of an aggressive personality; with blood pressure 145/105 mm Hg, and remaining right breast being of abnormal size, was subjected to a major procedure of plastic surgery for left breast build-up and right breast reduction. Approximately eight weeks after the reparative surgery and five weeks after the cosmetic surgical procedures which all proved quite successful, the patient developed a very progressive bone metastization with sudden onset of multiple bone lesions and a spontaneous fracture of the right femur neck. Nevertheless, all parameters of cell bound immunity were as good as before and there was no change in the excellent BCG response. We did not administer any other therapy than prednisone (5-8 mg/d); ergocalciferol (an early tumosterone precursor); 3.0 grams of vitamin C, and calcium orotate (1 gram/day). Within a few weeks the lesions recalcified and the fractured femur healed for normal functioning which is most uncommon clinically.

It is my belief that the rather extensive intervention of plastic surgery produced an important challenge to the adrenal functioning of this patient and this resulted in decreased tumosterone levels and associated vulnerability. Tumosterone imitating therapy and time yielding a most amazing and lasting "cure" of a conventionally hopeless metastatic condition. This very uncommon and certainly dramatic clinical case teaches us that dormant cancer foci may be omnipresent even if the patient shows a state of complete health with nominal clinical parameters. The organism requires a constantly functioning mechanism of endogenous immune surveillance for the suppression of cancer potentials would appear to be a reasonable conclusion. Now, with the work of Klemke (1977) there is a growing body of evidence that tumosterone is a natural and anti-cancer surveillance mechanism: it is my opinion that in the future research will have to focus on the amplification of what nature provides us to suppress cancer and that a synthetic tumosterone would be a very desirable intervention; or, perhaps better yet, the providing of the natural raw materials or precursor substances to the organism to potentiate an adequate biodynamic synthesis of the endogenous tumosterone.

VITAMIN C

The administration of very high doses (10 grams/day) of vitamin C (Cameron and Pauling, 1979) may well work as a tumosterone booster due to its specific adrenal action. This may be more likely with the simultaneous adminstration of ergocalciferol and copper gluconate however. Some fifteen years ago in Germany high doses of ascorbate were frequently and successfully employed for the treatment of male impotence, where the required dose was some 10-15 grams/day and where the effect of therapy appeared some one to two weeks later. This observation suggests that adrenal cortex stimulation, or steroid metabolism boosting, is a likely mechanism or path of action of the high ascorbic treatment. This is further true for the anti-fatique and anti-rheumatoid effects of high ascorbate which Norman Cousins (1979) describes in his brilliant book entitled "Anatomy of an Illness".

In our work we have found that aberrations in the mineral household of the cancer patient (Nieper, 1980) are not due to the presence of the tumor, but must be related to the host biodynamics as challenged by the cancer process. In the case of immunological, non-recognition of the cancer (e.g., in patients having blood Type A) the trace mineral ecology in whole blood analysis remains perfectly normal despite the tumor growth. If the Zn/Cu ratio increases to normal or near-normal proportions, the cancer undergoes regression more or less spontaneously and remains remitted and can subsequently be rather successfully treated (Nieper, 1980). We have several important lines of evidence that point to steroid metabolism of the adrenal glands as responsible for the proper whole blood trace mineral pattern as well as the disturbed Zn/Cu ratios and by this means and in some fashion tumosterone formation may also be involved. Finally, we have recently observed that daily doses of

more than 10 grams/day of ascorbate drastically increases the Zn/Cu ratios in whole blood which may also point to an adrenal connection. Remarkably enough, ergocalciferol, at about 300,000 units/day, results in the same effect.

As I have previously written in the *JOURNAL*, I have tried to work with the organism's biodynamics and its natural anti-cancer immune pathways in a fashion I have called *Eumetabolic Therapy*, which Linus Pauling calls *Orthomolecular Medicine*, and others, like the Editor-in-Chief of this *JOURNAL*, call *Biological Medicine*. I believe the material discussed in this paper illustrates this basic approach.

With the high ascorbate treatment we are for the first time in a position of putting pressure on the natural functioning of an anti-cancer immunodefense endogenous to the organism. Recent controlled studies with the Nieper-Regimen (1980) and incorporating benzaldehyde with the Cameron-Pauling high ascorbate program we are producing in our clinic at Hannover, West Germany, quasi-cures of lung and bronchiogenic cancers; these are inoperable and out-treated by orthodox standards. We are observing quasi-cure of a metastasizing breast cancer with extensive liver metastization; most successful remissions of excessive chronic myeloid and lymphoid leucemias; most surprising remissions of Grade IV "out-treated" Hodgkin cases (in combination with constant application of gamma-globulin), and quasi-cures of three colon malignancies with liver metastization.

I find it always a highlight in my professional career to learn from the patient and to learn from nature. However, I am also a proponent of a thorough education of the patient and his family so that psychological bases are touched as well. Obviously, orthodox chemotherapy, surgery, and radiation alone are irrational interventions reflecting a historical preoccupation with the invasiveness of disease at the expense of host resistance and host susceptibility issues that keynote "tomorrow's medicine" today. The progressive health care of tomorrow I have called Eumetabolic Medicine from my European perspective and urge that eumetabolic principles become the basic topic for cancer therapy education so as to deliver us from a symptom oriented, sickness care approach that has been a failing approach for decades.

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CANCER DIET AND OTHER PRECAUTIONS-- by Dr. Nieper

For patients following Dr. Nieper's prescribed therapy.

Avoid meat from all young, or hormone injected animals. If your doctor has permitted meat, use only fish or beef and mutton from older animals. Absolutely no fowl (chicken, turkey, etc.) no veal, no shellfish (lobster, oysters, snail, etc.).

No sugar or foods that would increase the sugar level of the body abruptly. No cake, cookies, pastries, ice cream, chocolate, beer, any alcoholic beverage except for sour wine. No white bread or any product made with white flour. Suggestions for cereals are oatmeal, porridge or whole grain bread from rye, millet or buckwheat. Stone ground bread, "Vollkornbrot," or "Knakbrød," is acceptable.

Patients should drink 2 to 3 glasses of **freshly made** carrot juice with the pulp, every day. Add 1-2 teaspoons of heavy cream to each glass. This is very important for the system to assimilate the carotene. In time, your skin will turn yellow orange, especially at the palms of the hands and bottoms of the feet. This is a favorable sign.

Avoid alternating current fields, especially electric blankets or heating pads, as this has a negative effect upon the immune system. The good old hot water bottle is O.K. To understand more about this, we suggest Dr. Nieper's book "**Revolution in Technology, Medicine and Society**," available from the A.K. Brewer International Science Library, Richland Center, WI 53581, U.S.A.

For drinks he recommends sour (tart) wines, (no other), currant juice, red beet juice, and papaya juice if it is available (especially good). Commercially produced juices are not recommended as they contain preservatives. Orange juice, squeezed fresh can be used in moderation. Apple juice can also be used if it is without sugar or preservatives. Drink only skim milk or 1%.

If bromelain is prescribed, do not take it at meal time. Take it before meals with a ½ cup of warm tea or clear broth for a more rapid passage. Or take it long after eating or during the night.

All vegetables and fruits (**preferably fresh**) are permitted. Coffee, tea and butter are allowed in moderation. Limit eggs to two per week. Artificial sweeteners are permitted if needed.

Patients should stay on a low salt (low sodium) diet and there should be (**absolutely no smoking whatever**. Avoid breathing second hand smoke wherever possible.

These foregoing recommendations are to be followed strictly, unless for some reason changes have been made.

DOWSERS/BETA CAROTENE*

Dr. Hans A. Nieper, speaking at the "Health by Choice Conference." May 1984, Atlanta, Georgia

Since so many people have asked me about dowsing, I will come back to this point as it has to do with geopathogenic zones and the other effects of frequencies which harm the gene stability. Animals which have to live in geopathogenic zones have to have more powerful gene repair substances. This is true for the cat, and is especially true for the ant.

We have known for a long time that workers in transformer stations have a high rate of leukemia incidence--much higher. Here we see that people who live in the vicinity of large electric mains have a higher cancer incidence than those living away from them. The 60 2/3 hertz in the Europeon railroads is especially harmful. The 50 hertz is also harmful, but Nikola Tesla insisted that 50 cycles should be used because it is less harmful. But all alternating current is potentially harmful, and sooner or later we will have to go back to direct current equipment.

There was an article in the June 17, 1983, Science magazine of the American Association for the Advancement of Science, which states clearly that low frequencies of that kind, arising from the gravity stress field, the tachyon field and also mains for electric wires--just the frequencies that you are exposed to--result in transcription, which is nothing more than cancer induction in the gene system. "Pulsing Electromagnetic Fields Induce Cellular Transcription," was the title of the article.

Now we come to dowsing. People who stay in these fields--gravity stressing fields or electric mains--have higher incidence of cancer and also multiple sclerosis. In fact 93% of the people who are cancer victims come out of geopathogenic zones. This, of course, is not the only cause, but it is the last push button for the gene system to go crazy. There is no resistance anymore. It is very necessary to remove all cancer patients from such a field. Back in the 30's, the famous German surgeon, Sauerbruch, told all his students that whenever they operate for cancer, they must inform the patients never to return to their previous bed.

*Dr. Nieper stated in a lecture in July 1989 that beta-carotene (taken as a CAPSULE) makes multiple sclerosis worse.

Do not use "remote dowsing." The dowser must come to a person's residence and determine the field inch by inch. Then the person must relocate away from the harmful zone. We send the dowsers to our cancer patients in Germany. Dowsing has been a teaching and examining profession in Germany, and the dowsers were government officials, up to about 20 years ago. Unfortunately, now we have only a dowser society, and the quality of those dowsers is not always reliable. There are, however, certain electric-magnetic devices which will also determine the geopathogenic zones, which we may be able to use in the future, and this would solve this problem.

Second to the mushroom toxin, "aflatoxin," geopathogenic zones are the most harmful factor for cancer that we know of. So please have a dowser come. DO NOT RETURN TO YOUR BED OR EVEN THE CHAIR THAT YOU HAVE BEEN USING. IF YOU HAVE HAD CANCER, ALS, OR RHEUMATOID DISEASE. In my opinion, not informing patients about this is simply malpractice. (Refers to documents--tachyon fields maps on the screen.) There are quite a few types of dowsers. They have different fields, there are different exposures that need to be done. Here you see tachyon field turbulences and how much impact they have on these diseases: cancer 92%, MS 75%, rheumatoid arthritis 70%. The number of cancer patients who do not come from geopathogenic zones is less than 16%, maybe even less than 10%.

Every experienced oncologist--at least in our country--knows that our defense system is drastically reduced by the 28th of August, and patients get worse in September and October. As the earth goes around the sun, twice a year, but especially in August, it enters certain magnetic field lines and current sheets which have a harmful effect on our cell membrane polarization. This is the time for occurence or recurrence of cancer. This polarization results in a higher incidence of gene lability, and higher incidence of inability of the lymph cells to dock to cell bound immunity. From the 28th of August on, we have to be cautious and stick to more protective therapy. To eliminate that damage, we activate the formation of energy rich phosphates in the ATP. A Japanese study shows how potassium magnesium aspartate in the scalenus muscle increased the formation of ATP. Increasing the membrane polarization thus counteracting the damage done from the field effect.

Many patients ask me about the purpose of beta carotene. Carotene activates the thymus, and reduces the blocking factors around the tumor cells. This is absolutely essential in the treatment of cancer. Now the tumor cell has a special layer which protects it from being discovered and abducted by lymph cells. The same is true of the embryo. This protects the embryo from rejection by the host (mother), but unfortunately the tumor, like the embryo, uses this and the host body cannot gain access to it. Unblocking therapy is absolutely necessary in cancer.

You can also unblock the tumor with heparine, bromelain and selenium. Lewis and Pethig, in England, showed that the beta carotene has to have a certain electric potential, the so-called "hopping charge" to expose electrons, otherwise, it wouldn't work. Cured beta-carotene is still brownish, but without the electric charge; the unblocking effect is nil. Get only beta carotene which is electrically active. Our preparation in Germany is in a dry powder form. If it's in an oil base, its dead. The alternative would be drinking freshly made carrot juice with cream.

Beta carotene is the best. First, it inactivates the blocking factor, and the blocking factor inactivates it. When you are stained by it, the carotene is dominating. Then, it activates the thymus gland. In spite of what some people claim, it does not cause liver damage like Vitamin A. We have biopsied many livers--it is harmless.****

--For more information on dowsing or beta carotene as a cancer medicine, we suggest Dr. Nieper's book. Revolution in Technology, Medicine and Society.

****Additional remarks on beta-carotene (the orange pigment found in carrots and other plants also known as "Pro" Vitamin A): I introduced beta-carotene into the daily cancer routine in 1971. It works around the clock in contrast to "mucine" blockers which have a short life. Vitamin A does not have a protecting effect to the same extent. A leading American research institution has reported that beta-carotene (carrot juice) reduces primary cancer frequency by 50 to 82%. This agrees with our experience. (Vitamin A does not have the electric property necessary first described by Dr. Pethig in Wales). Beta-carotene is only absorbed in the intestine in the presence of a fatty emulsion (cream, butter, peanut butter).

MODERN MEDICAL CANCER THERAPY FOLLOWING THE DECLINE OF TOXIC CHEMOTHERAPY.

Dr. Hans A. Nieper, Past President,
The German Soc. of Oncology.

As Dr. Ralph Moss, the former Research Speaker of the Sloan Kettering Cancer Institute in New York and author of QUESTIONING CHEMOTHERAPY, Equinox Press, N.Y. has correctly pointed out, cancer chemotherapy is a complex of the age slowly going under, with relatively limited exceptions. Not only that it disappoints millions of cancer victims who have invested hope in chemotherapy, the great failure of toxic cancer chemotherapy (which may also include interferon - and interleukin in particular) leads also to a tremendous draining of health care money - a money which has become very short.

When a ship is about to go under people are hoping for a rescue vessel. Which procedures in cancer therapy could eventually offer a better alternative?

1) Tumor resection, debulking or destruction by physics means, as early as possible.
2) Immediate preventive, protective, or curative therapy following surgery for unlimited time. This therapy has to be absolutely non-toxic, the disease should not have a chance to outlive the therapy due to the toxicity of the latter.

The measures which should be taken into account once the

confrontation with a malignant disease has been established, irrespective to a foregoing surgical procedure are the following:

a) Removal of the patient from sites of geopathogenic exposure. Ninety-three percent (93%) of all patients having contracted a malignancy have been exposed to those. We provide patients with the addresses of reliable dowsers or providers of the Meersmann-geomagnetometer.

b) Appropriate diet. Restrict meat, no meat of growing animals. Restrict cheese and any food rich in sugar. Prefer fiber-rich food, raw food (fruit, salads) millet, buckwheat. Prefer juice rich in anthocyans (red beets, blueberry) or rich in enzymes (e.g. papaya). Carotene, mainly in the form of juice or powder in capsules (not in an oily base). Do not combine with vitamin A!

c) The basic therapy should include:

<u>The</u> tripertinoid squalene (2-4 gm.) combined with vitamin C, preferably as calcium ascorbate. These two substances help the organism to develop several defense factors against both malignant cells and herpes type viruses of which several are oncogenic. The effects of squalene plus ascorbate can be measured by an increase of the

hormone dehydroepiandrosterone (DHEA) and of the enzyme cholinesterase (ChE).

Squalene, vitamin C and ergocalciferol (vitamin D) also result in the formation of thymic factors, including of the short-living endiol TUMOSTERONE, a genetic repair anti-malignant and anti-herpes substance. (Klemke)

The 'deshielding ' natural enzyme bromelaine.

The best of the available thymus preparations, both orally and for intramuscular injection.

The best of the available digestive enzymes, higher doses of pancreatin are very welcomed.

d) Special therapies: Oncostatin, an embryonic genetic repair and redifferentiation factor (Ney-Tumorin) mainly in the case of plasmocytoma and myeloma. Can be combined with chemotherapy (Melphalan).

Endonucleases, mainly from carnivorous plants.

Effective against all malignant cells and also all herpes type viruses, but also against e.g. tobacco mosaic virus. Much more viruses possible. Highly effective by intramuscular injection and by inhalation with cold water vapor, less so by oral intake. Intramuscular carnivorous extract is on the basis of the existing studies and our

observation a most important tool in the treatment of cancer, relatively expensive however. Officially prescribable as a potion in Germany.

Zinc-orotate and zinc-aspartate (120 mgs each per day) as inhibitors of thymidine kinase and virus replication in Hodgkin - and Non-Hodgkin lymphomas, combined with gamma globulin. LDH and AP have to drop under this therapy, otherwise discontinue. This therapy can well be combined with chemotherapy, e.g. foregoing COP - or CHOP programs.

Urea Pura therapy, the Danopoulos program. Mainly in the management of larger tumors or of primary liver malignancies. Intravenous infusion in Sterofundin/ Ionosterile Ringer of 6-12 grams of urea per day. Or orally together with K-Mg-aspartate if the urea level in the blood is low - which is extremely often the case in patients who are tumor-prone.

Reduced glutathion activated by l-cysteine and anthocyane has been shown to induce apoptosis, a 'self-switch-off' of cancer cells. The clinical results are evident under certain, but rare, conditions.

Alpha-Interferon has genetic repair (redifferentiation)

properties. This, however, in small doses which are accepted by the organism without disequiliberting intolerances. (Robert C. Atkins).

e) The most important genetic repair substances found in nature - and phylogenetically the oldest ones and the most powerful ones have all one property in common: They are aldehydes.

1) Acetaldehyde (7.5 gm. in 200 gm. of 48% alcohol). This is the German Ehrenfeld program, discovered by Udo Ehrenfeld, Max Planck Inst. for Coal Res., around 1974. Main indications are melanomas (protective therapy) and primary brain tumors. With a positive response rate of 80%, a requirement in modern oncology.

2) Benzaldehyde (the Japanese Kochi). In tocopherol (vitamin E) for a better stabilization. (Cancer Therapy Reports, Natl. Cancer Inst. USA, Jan.1980). For all forms of maligancies.

Kochi had originally stabilized the benzaldehyde in beta-cyclodextrin. The clinical results which he reported in 1980 were substantially better than those we could obtain with a benzaldehyde stabilized in tocopherol (vitamin E) as an antioxidant. We have, therefore, adopted the original Kochi preparation for the further and far more efficacious treatment of

cancer. The legal regulations in Germany permit the individual prescription of cyclodextrine-benzaldehyde. This preparation is - like all the other benzaldehyde donors - free from any noteworthy side effects.

3) Amygdalin, prunasin, ficin etc., benzaldehyde donors found in the flora. All kinds of malignancies.

4) Laetrile, the l-glucose variation of amygdalin. Due to its tumor specificity very effective. Unfortunately no more existing since the early 50's. No attempt has been made to regrow apricots manufacturing laetrile, by genetic manipulations.

5) Ureyl-Mandelonitrile (replacing glucose by urea). Developed by Kohler and Nieper, 1977. All malignancies, especially chronic leukemias. Individual potions prescibable in Germany. Also Nicotinyl-mandelonitrile, Paraamino-benzyl-mandelonitrile.

Ureyl-Mandelonitrile has become a mainstay with us since almost twenty years in the protective long-time treatment of prostate malignancies, including of their metastasization.

6) Didrovaltrate, found in the Himalayan valerian plant. The substance has to be converted into an activated di-aldehyde, by e.g. pancreas esterases or by electromagnetic effects in e.g. cell membranes. A

varnish-like substance, specific antimalignant property found by Anton, Univ. of Strassburg, France, 1981. Today a preferable treatment for urogenital and kidney tumors. Difficult to take. At least 20 - 22 pills per day, 1 gram each. At best with warm non-alcohol beer. Several years of application required- as in all these substances.

7) Iridodial, found in ants. An activable di-aldehyde, potentially an extremely powerful genetic repair factor. Antimalignant properties first defined by Thies, Solvay Kali Chemie, Hannover, Germany (1985). First observations of pulmonary tumor regressions by Didier, Gifhorn, Germany 1952. Extraction of natural iridomyrmex ants gives very small yields and can hardly be amplified. The German Society of Oncology, by its lay organization 'Biological Cancer Defense' has, therefore, started a research program to obtain iridodial in larger quantities, synthetically and semi-synthetically. Also iridodial-like compounds are found in other, e.g. Europeon ants. Also these most important anti-malignant properties have been observed in realistic clinical cases.

The iridodial research is to my opinion the spearhead

of medical cancer therapy research at the end of this century.

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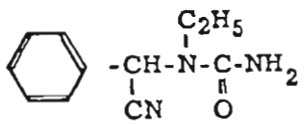

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Deutsche Gesellschaft Für Onkologie e.V.

Editor:

You may recall the Laetrile affair which was 99.9% emotion and 0.1% serious consideration. Laetrile (laevo- (di?) - glucomandelonitrile) is no more, existing since about 1953. I still see two patients who had been treated in the 40s with amazing effect. However the apricot kernel which, for some genetic abnormality, produced 1-glucose-MN also seemingly does not exist anymore within reach.

In the early 70s Dr. Casati and his son, in Florence, experimented with l-glucose (3000 USD per gram at that time). They found that most of the grafted and endogenous rodent tumors metabolize l-glucose unlike non-malignant tissue. I had the Casati's invited to lecture before the German Society of Oncology when I was president.

Since we had no chance to make or get l-glucose-MN I asked my late friend and colleague Dr. Franz Köhler (invented whole scale synthesis of acrylate, Plexiglas, in 1935) to synthesize a series of mandelonitriles for me, among those the ureyl, the nicotinyl, and the para-aminobenzoic MN.

These three substances I sent in about 1976 (75-77)? to the Sloan Kettering Institute (SKI) and they were so kind as to test them or at least to look after them.

We made then the following potion: 400 mgs of ureyl-mandelonitrile and 80mgs of nicotinyl-mn. in 60% alcohol, 100 ml. (a 0.4 and 0.08 solution). Of this we gave in general 2-3 x per day 15-20 drops (ca. 0.7 ml).

This in addition to the other anti-malignant therapies we offer (partially chemotherapy, didrovaltrate, squalene ± ascorbate, thymus, bromelaine, often amygdalin 1.0 g p.d., benzaldehyde, acetaldehyde (primary brain tumors and melanomas).

About 8 years after the introduction of the ureylmandelonitrile, our directing nurse in the oncology ward in the hospital said: "In essence mandelonitrile is still the best." Two years thereafter from my nurse Monica in the outpatient office, extremely experienced, came: "Doctor, those mandelonitrile drops are still the best." Hodgkins, prostate cancers, chronic CLL and CML leukemias, etc. stay stable over the years as never seen before. Herpes manifestations disappear. And patients with MS feel better (I have seen more than 3200 multiple sclerosis patients since 1964). Pancreatic carcinomas (always Herpes IGG highly positive, unlike colon cancer) responds apparently extremely well. It also responds to very high pancreatin enzyme doses and to carnivorous plant extracts. Carnivora is very effective against herpes, too. However, 80 times more expensive than are the ureylmandelonitrile drops.

For ten years a pathologist and internist from Pisa, Italy comes here twice a week for working with me in the hospital and in the office, Dr. Bonucci. In the meantime he became a brilliant oncologist. Last spring he brought with him a series of X-ray documentations which show the dramatic regression and then remission of a vast adenocarcinoma of the right upper pulmonary lobe, with lymphangiosis, mediastinal enlargement, pleural effusion, right more than left. In this patient, chemotherapy had failed; it resulted possibly more, in the enhancement of the disease (Cis- platin, doxorubicin, cyclophosphamide, or etoposid).

The patient had received carnivora, (limited amount), squalene-ascorbate, thymus, and didrovaltrate. Good, but by far not good enough to explain this result. It then turned out that Bonucci had given him ureylmandelonitrile at a three times higher dosage I normally recommended, and in a more frequent application. The remission of the disease took about 10 weeks.

I then went extensively over the Urea+ Oncology "handbook" which Dr. Amat had written in Spanish. A 750 page 3½ pound elephant. It gives fascinating insights into the urea metabolism and its implications. Considering the fact that the solubility of the said mandelonitriles is limited to about the indicated concentrations (in 60% alcohol) and that the avidity of malignant cells for urea must be relatively high, we turned to a more frequent and higher dosage: every 90 or 120 minutes – 20 drops, the entire non-sleeping time of the day. Toxic side effects are absolutely nil; due to the (rare) irritability of the gastric mucosa the drops are taken with health teas. Remarkable that there are also no side effects on the cardiac sinus knot and on the cochlear function.

What we continue to observe since we ran these higher doses are the most enjoyable results I have experienced in the last 40 years. Between our concepts and the attempts to 'rub in' toxic chemotherapy in order to obtain a short term result, there are light years.

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SUPPRESSION OF CELLULAR MALIGNIZATION BY CALCIUM COLAMINE PHOSPHATE AND BY CALCIUM-1-dl- ASPARTATE

Hans A. Neiper, MD, The Silbersee Paracelsus Hospital
Hannover, Germany
Past-President, The German Society of Oncology
Sydney, 9/95
The World Congress on Cancer

Since 1965 we treat cyclic pain in fibrocystic breasts with Calcium 1-dl-Aspartate, 350-700 mgs. per day. The effect on the formation of pain is very striking. However, in addition to this we have observed that in 78 patients thus treated only one carcinoma in situ had developed, in an observation time of 30 years.(1) Normally the cancer rate out of fibrocystic breast tissue is 1.9 times the mean cancer incidence of the female breast. Aspartic acid salts are known as membrane conductivity enhancers (Pressman). Ca-1-dl-Aspartate settles at the 2inner side of the outer cell membrane, (Nieper) (2,3) fixing a calcium lining there. It enhances the condenser function of cell membranes.

Since 1964 we have treated an important number of patients with multiple sclerosis (>2800) with CaEAP, i.v. and orally. This product is officially declared as a M.S. therapy in Germany, the positive response rate is in the range of 82% (Morrissette Study, 284 patients, retrospectively). CaEAP settles at the outer side of the cell membrane and enhances the condenser function of cell membranes.

In 1988 we became certain that the patients such treated "fail to get cancer." I expressed this finding for the first time at the NNFA congress in Anaheim, and in a Hiroshima University Lecture, in February, 1993. Only one breast malignancy was seen to develop under the CaEAP therapy, cured then by surgery. In five patients a prostate malignancy was found before the onset of the MS-therapy, in three a breast malignancy, and in one an exploding pulmonary-pericardial-adeno-carcinoma.

We have, therefore, started to apply CaEAP as a cancer protection substance in patients other than with MS (1989). Our aim is mainly the suppression of cancer recurrences of breast cancer, prostate cancer, and most importantly colon cancer. The study will still run for another two years or more. However, the results so far observed with colon cancer and also colon polyps are spectacular: In six of six cases of three to four times recurrent colon cancer - with increasing speed of recurring - a complete suppression of recurrences which should have been due since more than three years has been observed. This also applies to the formation of benign but potentially risky colon polyps. The so far observed results in the protection from breast tumor recurrences and of prostate carcinomas move in similar direction.

In forty years of clinical oncology I have never observed a malignancy suppression likewise effective. Not with beta-carotene (the discovery of the protective effect is ascribed to me in Germany), not with Squalene-Ascorbate, not with carnivorous plant extracts, not with mistletoe factors, and certainly not under any form of (toxic) chemotherapy. The cancer-suppressive dose of CaEAP is 1.5 to 2.5 grams per day, orally, vortex micro-coated granulate in capsules.

The principle of action has to be seen in an enhancement of the cell membrane capacitance through CaEAP (also called Membrane Integrity Factor, Vitamin Mi). We have measured this effect in MS patients, under the effect of CaEAP, 3.5 grams daily orally. MS patients feel warmer when under therapy with CaEAP.

We have, furthermore, found that the 'C' capacitance (in microfarad) of the female breast is lowered in the presence of fibrocystic induration, even more in connection with cancer, also very often on the tumor-free contralateral side, and the most with spread malignant tumor and after radiation.

I suspect that the important findings of Singer and Grismaijer (Dressed to Kill, Avery, NYC) have to do with a mechanically and/or electrostatically induced membrane impairment of the breast gland cell membranes. The authors have reported on a spectacular increase of the breast cancer incidence in relation to different modalities of carrying a bra. Smiling or joking on this finding does not help. This is a true challenge for modern scientific oncology.

Then there is another finding which fascinates us: The capacitance of a normal female breast, irrespective to breast size or age of the patient, is very sharply 0, 18 Microfarad. There is no range. Are we confronted here with the first physical (and physics) constant in man? An ultimate definition of 'LIFE'? A fascinating insight.

The cell membrane field load of about 90 kilovolts per cm generates magnetic field into the cell plasma, more precisely into the cell water. The properties of the cell water - which need a life to study - determine the functioning of the cell and also their structural integrity. They safeguard the cell even then when it carries oncogenes. There has always been the question why only a minute proportion of such cells tend to malignant disorder. Mostly they are kept in shape.

Modern preventive, protective, and therapeutic oncology drifts into the field of space field physics. It is imperative for a modern oncologist to have an understanding of this. The merely chemical aspect in oncology does not get us where we want to go.

(1) Levi, F. et al. Int. J. Cancer, 57/681('94)
(2) Nieper,H.A. Central Archive. The Keith Brewer Science Library, Richland Center, WI 53581, USA
(3) Nieper, H. A. A Clinical Study of the Calcium Transport substances Ca-1-dl-Aspartate and Ca-2-Amino-Ethanol-Phosphate as Potent Agents Against Autoimmunity and Other Anti-cytological Aggressions. Aggressologie, Paris VII - 4(1967).