Multiple Sclerosis Secondary Articles

by Dr. Hans A. Nieper

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MULTIPLE SCLEROSIS—AN INTERNISTIC ILLNESS

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Altogether, from July, 1964 to March, 1986, we have treated about 1,600 MS patients in the Paracelsus Hospital at Silbersee, Hannover-Langenhagen, some as inpatients, some as outpatients. About 1,300 of these patients came from North America, the rest scattered from Mid-Europe, Northern Europe, the Mediterranean, South Africa, Australia, Tasmania and East Africa.

At the present time, the full scope of the etiology and mechanism of MS cannot be given—only in a very condensed manner. The primary characteristic of the MS patient is damage to the cell membrane system. This is essentially caused by an insufficient amount of colamine phosphate (2-aminoethanol phosphate or EAP) in the lipid-system of the outer cell membranes. We are indebted to the distinguished biochemist ERWIN CHARGAFF for the discovery of the significant role that colamine phosphate plays in the cell membrane system. (Columbia University, New York) Patients who develop autoimmune diseases later in life, (not only MS) are characterized by a lack of colamine phosphate in the cell membranes. (GALLAND) This imperfection in the construction of the cell membrane explains certain familiar occurrences; among others, a series of disturbances in the function of the membrane: with MS patients, the cell membranes are generally characterized with an unusual porosity, especially however, with a reduction of its ability to act as an electrical condensor.

We know from the research of PRESSMAN (New York), that the colamine phosphate salts integrated in the membranes function both as a neurotransmitter and as a biochemical binding station for minerals—calcium for example. The vitally necessary condensor effect of the cell membranes can be obtained only through this calcium binding in the membranes. This idiopathic membrane deficiency appears to be a "primum movens" for the development of the disease. It has the following consequences:

1. The ability of the cells to completely extinguish certain virus genomes is defective on account of the electrostatic membrane deficiency. COOK and co-workers (New York) have discovered that MS patients and also victims of ALS (amyotrophic lateral sclerosis) are unable to extinguish the residual genomes of measles virus, distemper virus, cattle plague and swine fever in the epithelial cells of the upper small intestinal tract, as they do for other viruses. This phenomena has not been observed in patients which do not have MS or ALS.
2. The endogenous membrane defects previously referred to especially, are an invitation to the development of the auto-immune process. This happens

because of the electrostatic, repelling effect of the cell membranes, and also their lacking proper structural coherence to keep in step. There is substantial evidence that the persistence of virus genomes in the tissue, activates and accelerates this immune process. (Investigated by MANNWEILER from the Pette Institute for 20 years.)

3. Since the myelin takes the form of a multiple winding of the cell membrane system, we are especially concerned with the lessened condensor activity of this function. Up to about three years ago, it was assumed that myelin was an insulation material around the central axon. For this reason, it created quite a sensation when a research group from Buffalo, New York discovered that an electrical shunt exists between the myelin sheath and the central nerve axon. This was discovered three years ago. Now we must consider the myelin system, not as an insulation, but as a Tesla energy system. The principle is that since the nerve cell impulse is much too weak to start a synaptic reaction in the affected organ, a strengthening is necessary. This takes place in this way: the neurogenetic impulse in the membrane system of the myelin is conducted in such a way that a corresponding amount of Tesla function energy is derived from the scalar electromagnetic (tachyon) field from aether space. This raises the neurogenetic energy potential to a two or three times higher amount. (This is the same system that we recently developed for the so-called Plasma Ignition, which allows us to burn gasoline more efficiently in automobiles and so use a leaner mixture.) When the condensor function of the myelin membrane is damaged, the conversion ability and the synaptic stimulation of the organ that it affects will be below par from an energy standpoint as a result of this. As the condensor function of the harmed membrane is further harmed by the autoimmune process, the illness escalates.

There is also a series of supplementary conditions that have an active influence upon the course of the illness. These are:

a) Patients who live or work in geopathogenic zones, which result in an additional membrane discharge. (For illustration of scroll waves, Los Alamos National Laboratory, New Mexico, see page 304 of my book Revolution in Technology, Medicine and Society.)

b) MS is much more prevalent in the sections of the northern and the southern hemispheres where there is a dairy industry and dairy products are marketed. It may be that the viruses in the milk play an additional etiological role, or it may be the glutenes. (Cancer of the breast is also higher in the areas where dairy products are marketed.)

c) MS in the US and Canada shows a considerable variation in symptoms and in the course of treatment from the MS in Europe, South Africa and Australia. The most probable cause for this is the large amount of aluminum foil and aluminum cans used in the food and drink industry plants. It is also true downwind from other plants where the atmosphere contains traces of platinum, nickel, chromium or (and especially) fluorine. (The same pattern is true for ALS.) While the harmful effect of aluminum upon the nervous

system is quite well known, we also know that fluorine and heavy metals can destroy the control capabilities of a series of little known dihydroxy steroids which are able to repair both the derailing of the immunological surveillance system and the genetic surveillance system. (FISSER) (Aluminum is now known to play a role in Alzheimer's disease.)

d) The tendency of MS patients to develop infections in the urinary tract is not only caused by a neurological disturbance of the bladder function but also by damage of the electrostatic defense capabilities against bacteria in the discharging urinary tract, on account of the previously referred to reasons. The same reasons are responsible for a series of additional phenomena such as capillary fragility and chondritis.

The MS patient not only feels cold—he actually is cold. His body does not generate sufficient heat. The origin of this phenomena, apparently lies in the damage to the condensor function of the entire body cell membrane system, resulting in a lessening of the heat production, generated from the scalar electromagnetic field. About 4° C of body temperature is generated from this energy rather than from nourishment in adults—the percentage is higher in children. The most important part of MS therapy is the repair of the condensor function of the cell membranes. This defect occurs at the bonding station for minerals—and the best way to correct it is to use colamine phosphate salts to transport the needed mineral in. The only satisfactory salts are calcium EAP, magnesium EAP, and potassium EAP. The relevant preparations are phosetamin (enteric coated tablet), calcium EAP (enteric coated tablet) and calcium EAP in solution for IV. In fact, the last mentioned preparation was officially declared to be a MS remedy in 1967. When there is also a necessity of producing an immunosuppressant therapy—a question which we can answer after a test for the consumption of naked-nuclear lymphocytes—we use trophosphamide (Ixoten). We stopped using immunosuppressive therapy with Azathiaprine in 1968 because of possible side effects on the liver and bone marrow.

In case of infection of the urinary tract, we usually use Harnesal, since it has been known for 25 years (from the research of Hackmann-Bayer) that this sulfonamide appears to be adapted for unlimited use, not on account of its bacteriostatic activity, but especially for its electrostatic surface properties. Schedule for colamine phosphate therapy:

7 tablets of phosetamin* daily—to insure good flow of bile, which is important for regular reabsorption, plus
2 enteric coated tablets of calcium EAP
1 ampule containing 400mg calcium EAP—3-4 times per week IV. Inject quickly.

The results of the treatment without the EAP IV are not satisfactory by comparison.

Symptomatic improvement of the illness covers mainly:

* Phosetamin is a German brand name for a product combining the calcium, magnesium and potassium salts of amino ethanol phosphate (AEP)

bladder function
intestinal function
mobility of the upper extremities
facial mobility
generation of body heat
relief from the feeling of complete exhaustion

In contrast, the improvement in the musculature of the thigh is relatively slight in comparison to the above symptomatic improvement.

Spasticity, even with the adductors, is usually considerably lessened, especially by the magnesium EAP (phosetamin). The necessity of prescribing Lioresal is now lessened considerably. About 40% of the ambulants and 60% of the stationeries in MS patients treated receive Ixoten. However, when they are treated with EAP, the Ixoten can be continued—we have used Ixoten therapy continuously for over 1,000 days (50mg daily) without any apparent problems—instead of a limited time, (such as 12-16 weeks) therapy.

On the basis of our clinical observations, the calcium EAP intravenous therapy should be continued for at least four to seven years. We have several patients on our prescription list, that have continued the oral therapy for over 20 years. Frequently, patients will show a remarkable improvement with Ixoten and will ask for a renewal of their prescription. This however, is never the case with Imurek.

At the start of an acute attack, the medicine of choice is triacinolon, or occasionally decadron intranthecal. ACTH should be definitely avoided for the MS patient. It leads to squeezing out of the androgen Fisser-control steroids, and although some improvement may be experienced at first, the effect in the long run is a worsening of the suffering.

The percentage of the MS patients who are objectively and subjectively, in better condition, at the end of two years treatment, is for the American patients, between 90 and 92%. For the European, however, it runs closer to 70%. The strong symptomatical divergence in the USA, for example less optical palliation, and the variation in the therapeutic results, can be best explained by the aluminum theory.

Our conclusion is that from the aspects exhibited, taking into consideration the complete membrane organ systems, from a series of biochemical, laboratory-technical and therapeutic results—all this tied together—indicate that we should consider MS as distinctly an internistic illness, and a neurological illness to a lesser extent.

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THE COLAMINE PHOSPHATE SALTS AS MEMBRANE INTEGRITY FACTOR

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Hannover, West Germany, 1989.

In the year of 1941, the eminent biochemist ERWIN CHARGAFF identified a special component of cell membranes, the so-called colamine phosphate or chemically named 2-aminoethanol phosphate.

The significance of this discovery was ignored and not understood over a long period of time. Only the couple FERRARI and a few coworkers investigated colamine phosphate for biological reasons. I focused on developing the so-called electrolyte transporters the same way as LABORIT around 1956. Simultaneously with Laborit, but independent of him, I could apply in 1958 for a series of very successful patents in this field, especially concerning aspartates, para-aminobenzoates, phenylalaninates and also nicotinylaspartates. A few interested groups became increasingly aware of components in cellular metabolism and of the membrane structure as potential electrolyte transporters.

During the spring of 1961 the chemist and pharmaceutical industrialist BERNAUER of Zurich, Switzerland, visited me. He asked me whether the colamine phosphates could be used as carriers of iron into the cells. He brought along extensive literature, especially Ferrari's. My opinion at that time was that iron colamine salts would be too risky - even as of today I am of this opinion. However, calcium, magnesium, potassium and lithium salts of this molecule could be exceedingly interesting. During the early summer of 1961, I asked DR. FRANZ KÖHLER, SR. of Alsbach, Bergstrasse, to prepare above named salts of colamine phosphate for me.

From then on, at first haltingly, then a noticeable victory parade of this class of compounded substances began. This development in medicine was, as of that date, quite singular.

The theoretical postulate was to find a calcium carrying molecule which would be preferably a calcium salt. This would shield the molecule from auto aggression, immunological and possibly toxic and viral attack. The concept turned out to be very substantiated. It still holds true today, especially after the publication of a very meaningful work by MÖNNINGHOFF in 1974. The author proved that calcium and colamine phosphates cause a remarkable sealing effect within the cell membrane. Mönninghoff demonstrated in this manner that endothelial cell membranes may be completely sealed off against penetration of peroxidase granules. The studies were done under an electron microscope. Undesired aggressive factors in nutritive substances were permitted to pass the cell membranes without being able to enter.

In 1964 we began the clinical use of Calcium EAP and Phosetamine.* Since 1967, Calcium EAP was officially declared on the basis of Federal German laws to be permitted in the therapy for multiple sclerosis. After 1968, following a paper by DUDZIAK from the MS clinic in Hachen, under the then director SCHORRE, in which the author reported positive results of the therapy on the cerebral symptoms of MS, Calcium EAP was limited to this indication in the official declaration. This, however, did not have any effect on clinical use, since it must be mentioned that the observations in Hachen were limited to from 4 to the maximum of 8 weeks. According to our files, we have observed patients up to 23 years. Today we know that colamine phosphate salts are not only "shields" or "sealants" of cell membranes. Moreover, colamine phosphate has a specific action of its own, namely to maintain or repair neurotransmission, absolutely necessary for the electrobiological connection. The binding of calcium along the cell membranes causes them to act like electrical condensers. Without this condenser function, a regulated existence of cell and organism is not possible.

Returning to the sealing function: according to the membrane model by BÜCHI, we must assume that the membranes have two transverse systems of pores, an active transport pore and a so-called free lipid pore. Only the latter allows entrance of aggressive, and for the cell, "unwanted" substances such as toxins, antibodies and even viruses. The active transport pores only allow, in a controlled manner, nutrients such as amino acids, maybe peptides and sugars to pass. Since the colamine phosphates are mainly positioned near the free lipid pores, calcium colamine phosphate (Calcium EAP) also only hinders access to the free lipid pores. All available clinical and experimental data confirm this assumption, in contrast, however, the nutritive supply to the cell is not diminished by Calcium EAP inserted into the membrane.

In the mid-sixties, we investigated the action of the substance on a number of patients suffering from chronic allergies, immunological and auto immunological conditions according to the criteria of the current knowledge of these diseases. In 1967, a paper of mine appeared in a pharmacodynamic journal giving my observations.

Exactly 20 years later all of these statements were not only verified, but also, in view of the importance of colamine phosphate salts, only now, slowly, a sounder understanding is taking hold.

We must add to this, that only the modern interpretation of the condenser function of the cell membranes, also the Tesla amplifier function of the myelin, and the other physiological discoveries concerning cell membranes (for instance gas exchange in alveoli) are necessary for the understanding of the clinical action of colamine phosphate salts.

Today, after us treating some 2,000 MS patients with colamine phosphate salts with varying positive results, in 82% of USA patients and about 70% of the European patients, we know the chance of success. The

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* the magnesium, potassium and calcium salts of EAP combined.

varying degree of improvements based upon the varying pathogenic mechanisms which cause the disease in the USA compared to all other countries in the world. After the results stayed about the same for about 20 years, it is only recently through the use of colamine phosphate salts plus omega-fatty acid, derived from cold water fish species, and themselves called membrane components, that further improved results in MS treatment were obtained. Furthermore, we have only learned relatively recently that important concentrations of ascorbate are needed to enable the incorporation of EAP into the membranes.

It is, however, new, if one does not count in my 1967 publication, that colamine phosphate salts are found of eminent importance and usefulness in diseases involving disturbed cell membranes. Already in 1967 we could prove the exceptional effects of colamine phosphate salts in cases of chronic kidney diseases, with or without nephrosis, especially however, in diabetic nephropathy (chronic vessel and membrane damage in the kidney due to diabetes). Increases in blood pressure due to diabetic nephropathy, and abnormal elimination of protein are reduced, sometimes to completely normal values. Diabetic retinopathy which affects the small blood vessels in the retina is avoided by the treatment with colamine phosphate salts. DR. KÖHLER, JR., presented all this at the New York Symposium, the results were obtained at the University of Giessen. These proved that diabetic neuropathy, the damaging of nerve conductivity in diabetic animals, was largely cured through the use of colamine phosphate salts.

Every physician and many laymen know, that not only is diabetes pandemic with a high rate of increase in civilized countries, but also the above observances of the disease threaten millions of diabetics in the whole world. Alone, from this point of view, the health protection of colamine phosphate salts can hardly be overestimated.

A further aspect of great importance is the protection and repair effect of colamine phosphate salts in lung disease, especially in reference to the gaseous exchange mechanism of the alveoli. We know for a few years that colamine phosphate salts practically completely eliminate the tendency toward asthma, the development of emphysema and elevated pulmonary pressure. This action is clinically so spectacular that practically all asthma cases are helped except those with simultaneous fungal (Candida) infections of the lungs. One can determine clinically that oxygen saturation of the blood increases with colamine phosphate salts, and what is more important, increased elimination of carbon dioxide leading to more normal levels in the blood, which in return results in the decrease of pulmonary pressure. Obviously, the alveoli system becomes increasingly able to regulate the gas exchange after colamine phosphate treatment (uptake of oxygen and elimination of carbon dioxide).

These eliminate the central reflex triggered by high carbon dioxide tension which is responsible for asthma symptoms and the attack itself. Long years of experience and learning show that this treatment also stops further degeneration of the lungs, especially the development of emphysema. Even

pulmonary function is restored to a degree.

Also, in the case of the above lung diseases, doctors and laymen would understand the great importance of protecting the lung structure and function for the health of millions of people.

There are countless other applications for colamine phosphate salts as applied to the immune processes. For example, in the small vessels, immune disease in sarcoidosis (BOECK'S sarcoid) the treatment is very effective. Neurodermatitis and decalcification conditions are among the more treatable conditions. The unifying therapeutic-functional principle of colamine phosphate salts is at least partly the repair of the cell membrane condenser function. We know that the decrease of the condenser function is the central criterion for what we quite unqualifiedly call "aging". Important functions of the cells, which are necessary to life are tied to this condenser function (between 30 and over 70 millivolts).

We must assure, for the time being, that a well developed condenser function is needed by cell membranes in order to energetically activate repair factors. These factors, further down the scale in their watchfulness over the genetic system, protect against malfunction, and even repair damage. This, again, is an important precondition for the prevention of cancer, which has its cause in the damage of a series of known and unknown genetic structures. Since colamine phosphate salts can also act as calcium and magnesium transporters, they act in two ways. One is the mineral transport itself, and the other is the improvement of cell membrane polarization.

In the past, many multiple sclerosis patients decalcified because of physical inactivity and experienced frequent bone fractures. Since the introduction of colamine phosphate salts, especially Calcium EAP in our sizeable MS patient population, the occurrence of more or less spontaneous fractures, especially of the head of the femur, has dropped drastically, at a high rate of success, instead of practically zero. The development of osteoporosis, especially in post menopausal women, is connected with a considerable decrease in membrane polarization. Accordingly, it should be probable that colamine phosphate salts could reduce osteoporosis over a long time period. One could also expect that the apparent increased osteoplastic activity (resorption of bone tissue despite recalcification) would be regulated to normal. Doctors and lay people know of the increased occurrence of worldwide decalcification conditions, especially in industrialized areas. Very high costs are incurred in treatment of decalcification diseases.

The colamine phosphate salts are in principle not drugs. They are merely the calcium, magnesium, and potassium salts of colamine phosphate, a normal body constituent. Colamine phosphates have an essential function in the structure of cell membranes, as physiological sealers, in electrical neurotransmission (conductivity), and are the basis for formation of the electrical cell membrane condenser.

Some illnesses are caused by the inability to synthesize adequate amounts of colamine phosphate into the body. In MS, this appears to be the initial factor. Therein lies the considerable degree of momentum in this

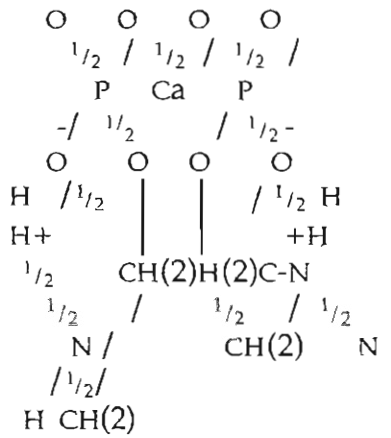
disease. A special case is the so-called Leukodystrophy of children, which may develop very abruptly at the age of 2 to 3 years, because the maturation of the baby's myelin is disturbed. This condition in children can be treated very effectively (drastic reversal in 17 of 18 patients).

Since colamine phosphate salts are endogenous substances and essentially necessary to life, both colamine phosphates and their salts must be added to the list of vitamins.

I therefore suggest the term "Membrane Integrity Factor", or for short, Vitamin M i.

CALCIUM EAP
Vitamin M i—Membrane Integrity Factor

Chemistry:
Calcium EAP has the following formula:



With the designation: monocalcium chelate of
phosphoric acid mono (2-aminoethylester)
Summary formula = C(4) H(14) 0(8) N(2) P(2) Ca
Molecular weight: 320.12
Calcium content: 1 g Calcium EAP = 125.20 mg Ca^{2+}
= 6.24 mval Ca

Diabetic Nephropathy:
Drastic drop in increasing blood pressure. Drastic drop in albuminuria. Normalization of creatinine clearance. Normalization of urine sediment.
Diabetic (II) Regul.:
Drastic increase of glucose tolerance and shift towards better adaptive regulation.
Diabetic Retinopathy:
Absence in the development of diabetic vessel alterations in II-Diabetes. Most

likely same situation with all other small vessels (cerebral, renal, and cardiac, etc.)

COLAMINE PHOSPHATES: Ca-EAP, Phosetamine
Vitamin M i—Membrane Integrity Factor
So far observed medical protective efficacy:

multiple sclerosis	(ca. 82/100)
ALS	(ca. 50/100)
Friedreich's Ataxia	uncertain
Diabetic Retinopathy	(close to total)
Diabetes II Regulation	(close to total)
Diabetic Nephropathy	(close to total)
SCHÖNLEIN-HENNOCH, WERLHOF, immune thrombocytopathy	(close to total)
Pseudo-Croup	(close to total)
Leukodystrophy	(see information given on page 5)

asthma, hypercapnia, degenerative lung diseases, pan-arteriolitis, small vessel disease (close to total)

After more than 25 years of observation the colamine phosphates (Vitamin M i, Membrane Integrity Factor) will possibly turn out as one of the most significant discoveries in protective health care (E. CHARGAFF, FERRARI & FERRARI, KÖHLER & NIEPER, L. LEVI).

INDEX NEW VITAMIN MI

USES OF CaEAP FOR MS, ASTHMA & DIABETES

by Dr. Hans A. Nieper, M.D., Hannover, Germany

Translated from Aug/Sept 1988 raum & zeit

In the spring of 1961 the Swiss industrialist Bernauer visited me, recommended by Dr. Kohler, Alsbach, with whom I have had a very fruitful scientific collaboration. Bernauer, owner of Wolo AG in Zuerich, asked me:

"A married couple, Ferrari, has been studying the substance called 2-aminoethanol phosphate or in short colamine phosphate. Dr. Kohler in Alsbach has referred me to you, because I wonder if it would make sense to make an iron salt or an iron complex compound of it."

In 1939-41, the world-famous biochemist Erwin Chargaff had reported on that subtance, identifying it as a partial component in the structure of cell membrane. I had been well aware of the continuing research of the Ferraris' and of Dr. Harkness for some time. My answer to Mr. Bernauer was that I would consider ferrous salt in such a compound rather risky, and testing would be immensely difficult.
In fact, iron-EAP, as colamine phosphates are called (for short), had never been produced as far as I knew at that time. I did not involve myself any further in this matter, although I did conceive of iron-orotate later in another type of so-called mineral transport substances, the orotates. Iron-orotate is still marketed today (by a U.S. owned company) in Eschwege, W. Germany.

Still, on the same day, I asked Dr. Kohler to produce, not the ferrous salt, but calcium, magnesium, and potassium salts of the colamine phosphates.

From the beginning, these new substances were special to me since they deviated considerably from the "electrolyte-carriers" previously developed by me, e.g. the magnesium salts of the aspartates, arginates, para-aminobenzoic acid and some peptides. During a meeting at the firm of Trommsdorf in Aachen in 1962, Dr. Kohler proudly reported that he already had several kilos of potassium, magnesium, and calcium-EAP, and that this would perhaps develop into something "really big". I didn't see at the time where the appropriate application might be, but Kohler was obviously correct in his premonition. It took some 25 plus years following Dr. Kohler's death until the EAP salts would turn into a biologically active substance of the dimension not yet fathomable.

Following the cell membrane model of the Swiss scientist Büchi, colamine phosphate is integrated into the cell membrane in a way that it is localized on the outside on the external cell membrane, mainly at the entrance spots into the so-called free lipid pore. From communications by Dr. Pressman, New York, we know today that colamine phosphates are part of the so-called neurotransmitters, i.e. substances necessary for conducting an electric signal to biological structures. In addition, the substance is obviously necessary to retain said charges, especially of calcium, on the membrane surface. The result is extremely significant because, in this way, the cell membranes can function like an electric condenser, except that the areas containing the charge do not consist of metal as they do in technology but of biologically retained (bound) calcium linings.

Colamine phosphate salts, and calcium salt, in particular, are therefore indispensible in supporting the condenser function of the cell membrane. We will refer back to this life-deciding factor later.

Clinical Testing

From approximately 1963 on, we started to apply calcium and magnesium-EAP clinically with the intention of protecting the cell membranes against unwanted intruders, e.g. antibodies, toxins and viruses. These unwanted intruders can only enter through the so-called free lipid pore of the cell-membrane, at whose entrance - as mentioned before - the colamine phosphate is in position. We presumed, therefore, that the supply of calcium EAP would have a special sealing function because of the rejective effect of calcium.

Our expectation proved to be correct. Already in 1971, Mönninghoff, Münster, W. Germany, published electron microscopic research demonstrating in a spectacular manner how the sealing of cell membranes with calcium-EAP (and also with calcium aspartate) could prevent penetration of peroxidase granules. Peroxidase granules can be followed very well by electron-microscopy in an experimental setting since they provide a highly suitable testing model.

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12 juin 1967

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A clinical study of the calcium transport substances Ca 1-dl aspartate and Ca 2-aminoethanol phosphate as potent agents against autoimmunity and other anticytological aggressions.

2nd communication

by

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RESUMES

The author describes the probable mechanism of action of the anti-immune calcium transport substances Ca-l-dl-aspartate and Ca 2-aminoethanol phosphate (Ca-EAP) and their clinical activity in a number of autoaggression diseases. Special emphasis is given to the treatment of gastritis, colitis, juvenile and retinotoxic diabetes, indurative mastitis, thyreoiditis, spondylitis, BECHTEREW'S *disease, renal hypertension, chronic nephritis, myocarditis, degenerative diseases of the lung, encephalitis following measles, multiple sclerosis, schizophrenia, chronic rheumatoid arthritis and* HODGKIN'S *disease.*

Observations were collected in the course of administration of about 55 000 daily doses of Ca-EAP. The findings described in an earlier communication are confirmed and in part more detailed explanations or interpretations are presented.

An explanation for the selective membrane permeability decreasing effect of Ca-EAP is offered, based on BÜCHI'S *cell membrane model. The cell membrane becomes impermeable to aggressive substances and antibodies but permits the active passage of nutritive substances of steroids.*

L'auteur décrit le mécanisme vraisemblable d'action anti-immunitaire de composés transporteurs de calcium, le d-l-aspartate de calcium et le 2-aminoéthanol-phosphate de calcium (Ca-EAP) et leur activité clinique dans un certain nombre d'affections par auto-agression. Il insiste surtout sur le traitement des gastite, colite, diabète juvénile et avec rétinopathie, mastite scléreuse, thyroïdite, spondylite, maladie de BECHTEREW, hypertension d'origine rénale, néphrite chronique, myocardite, affection dégénérative du poumon, encéphalite post-rougeoleuse, sclérose en plaques, schizophrénie, arthrite rhumatismale, et maladie d'HODGKIN.

Les observations portent actuellement sur l'administration d'environ 55 000 doses journalières de Ca-EAP. Les résultats décrits dans un article précédent sont confirmés et détaillés : des explications ou des interprétations sont proposées.

En particulier le modèle de membrane cellulaire de BUCHI, permet d'expliquer la diminution élective de la perméabilité membranaire : la membrane cellulaire deviendrait imperméable aux substances agressives et aux anticorps mais permettrait encore le passage de substances nutritives ou de stéroïdes.

Application in Multiple Sclerosis

By 1967, the following results were obtained after administering over 50,000 daily doses. The disorders of patients with multiple sclerosis improved considerably. As treatment, calcium-EAP was given both intravenously (usually 400 mg three times a week) and in tablet form (approx, 1.5 g. per day). In the case of multiple sclerosis, cell membrane damage exists throughout the body, showing especially in myelin, a multiple condenser winding around the central nerve fiber. Multiple sclerosis is not a neurological disease, but a generalized disease of the cell's membrane system. It also affects the bone matrix system, the kidneys, the membranes of the pulmonary alveoles, the urinary tract system, the inner linings of little vessels, the membranes of red blood cells as well as many other sites.

Furthermore, it was evident that the consequences of viral infections could be drastically reduced by the M_i therapy, as demonstrated in 1969 by a control group (personnel of two department stores). Likewise, aggressions on cell membrane, such as by ouabaine or Strophantine which was injected next to the vein could be reduced by this treatment. Considerable improvement was noted in patients suffering from chronic kidney illnesses. Rheumatoid disease, i.e. Boeck's Sarcoidosis, and other hard-to-cure disorders such as tuberous sclerosis and leukodystrophy also improved significantly. I reported this in the leading French pharmaco-dynamic journal Agressologie more than 20 years ago (See bibliography).

In spite of these and other publications which resulted out of the research of Dr. Köhler, in spite of the research at the Medical School, University of Hannover, on the coagulation platelets (which were extremely positive) and the already mentioned publications on the electron-optical findings by Dr. Mönninghoff, the clinical application of Calcium-EAP progressed relatively slowly. A special variant, a mixture of calcium EAP, magnesium-EAP and potassium-EAP excelled in calming and harmonizing the nerves of excited patients, especially children. This compound is effective on the diseases mentioned just as pure calcium-EAP is.

Success With Multiple Sclerosis

At first, the main area of application of calcium-EAP was multiple sclerosis. In the 24 years since 1964, approx. 2,280 patients were treated with multiple sclerosis, about 800 of them from North America. The results observed over 24 years were good and interesting in many respects and unquestionably better than any other known treatment of MS. Since the positive effect on MS cases was evident around 1966, the German Health Authority in Berlin approved the claim labeling "Multiple Sclerosis" on packages and brochures, identifying calcium-EAP.

The fact that this therapy did not gain faster acceptance over a long period of time is certainly related in part to a libelous and perfidious campaign against me and this treatment by the German MS Association. Even the American MS Association had chimed in from time to time but ceased this activity in 1987 in consequence of better findings, in contrast to the German MS Association. (Not to be confused with the independent German self-help groups).

In 1986-87, Dr. Morrissette conducted a retrospective poll of patients in the USA who originally had begun this treatment with us in Germany. Just under 300 patients were entered in this study showing that 82% of them had had a positive benefit from this therapy. When the treatment had begun in the early stages, this positive result rose to 92% of these patients. If the treatment was interrupted, the disease would erupt anew, which was to be expected (as in 20 of 28 cases where injections were stopped).

The long-term observation of calcium-EAP effect on MS patients in such great numbers produced an entire series of additional, highly-revelant phenemona that are extremely fascinating. First of all, for all practical purposes, patients under this treatment hardly age, neither in their outward appearance nor by any other criteria like tissue elasticity, skeletal firmness, absense of osteoporosis, etc.

While formerly one-third of all MS patients would die of lost nerve functions and another one-third of increased tendency to bone fractures and the last one-third of kidney failure, only two patients out of 2,200 did this. Unusual bone fractures and problems with kidney functions were not

observed at all. Second to myelin of the nerve fibers, the kidneys are especially endangered in MS because the electrostatic defense against ascending bacteria that can damage the kidneys is no longer adequate because of insufficient membrane polarization in the cellular system of MS patients.

*[On the basis of this observation, treatment has begun with calcium-EAP decalcification diseases including true osteoporosis not related to multiple sclerosis. The net results are apparently striking. I feel that the energetic membrane impairment in osteoblasts and of the bone matrix tissue is the true and deeper cause for decalcification diseases including osteoporosis. It is well known that these ailments are not under control. Therapy with conventional calcium salts fail as well as does hormone therapy, not speaking of the extremely risky fluoride therapy which may increase the cancer and leukemia risk and threaten the heart muscle's integrity. In the U.S., some 24 million people suffer from decalcification of the bone system; some 1.45 million experience spontaneous bone fractures every year. In my opinion, there is no alternative to calcuim-EAP for the treatment of bone decalcification.]

Success With Asthma

Although we had known in principle and published the protective effects on bone structure, kidneys, lungs and other organs for some 20 years, these questions were reviewed more intensively in the last 15 years. The result was exceedingly interesting. In asthma, e.g. a disturbance of the gas exchange on the membranes of the lung alveole cells is very important. If this sensitive gas transfer system is impaired (namely the assimilation of oxygen into the blood and the release of carbon dioxide into the exhaling air) serious problems will arise.

For instance, because of the excessively high level of carbon dioxide in the blood, a constrictive reaction of the lung vessels and small airways will result, which in turn will become evident as a set of asthmatic symptoms. In addition, there will be long-term degeneration of the lung, turning

*The information in brackets was added by Dr. Nieper in 1991.

either into emphysema with a loss of alveoles or into a tendency of scarring in the connective tissue causing fibrosis in the lung tissue.

Regular treatment with calcium-EAP apparently results in normalizing the membrane functions in the cells of the lung alveoles, so that the gas exchange can largely recover. This outcome did not become evident until an effective gas analysis technology was introduced in recent years. The result: Now, we almost have no asthma patients left, especially none of younger or middle age.

A few weeks after beginning therapy with calcium-EAP, asthmatic reactions will subside and almost disappear. However, additional factors come into play that cannot be elaborated here.

We have seen that the use of colamine phosphate salts to normalize the gas exchange in the lung constitutes the most important basic treatment in overcoming asthma and degenerative lung disease. For such patients, this therapy seems indispensable.

Along with the disorder of the gas metabolism mentioned above, there is often an undesirable mobilization of calcium from the bones which tend to decalcify. This tendency resulting from carbon dioxide stress in the blood is likewise prevented by calcium-EAP.

Success With Diabetes

During the late 1960's and early 1970's, we noticed that patients with more or less severe disorders of diabetes obviously felt better when treated with calcium-EAP. The metabolism improved, tolerance to sugar improved, and the kidneys especially appeared to react favorably to this treatment.

In diabetes, so common today, the actual problem is not the increased blood sugar level, but the consequences resulting from it. Excessive levels of glucose will produce unacceptable sugar deposits in numerous structures of the organism ranging from the red blood hemoglobin to the cell membranes such as of the vessel and capillary systems. It is

the resulting degeneration of the small vessels, especially, that can turn diabetes into an often severe illness in a long, drawn-out process that will often not surface until after twenty or thirty years.

These damages can easily be followed when observing the small vessels of the retina and its dependent structures. In the United States, diabetes is the second most frequent cause of blindness. This retinitis is called "diabetic retinopathy". Intellectual activity, i.e. the ability to use the brain, can be impaired considerably by such damage to small vessels caused by diabetes. Even the larger vessels such as the aorta, the heart arteries, and especially the neck's carotid artery whose correct bilateral function is indispensable for the blood supply to the brain, as well as the arteries in the pelvis and legs, are especially affected by diabetes.

The kidneys are the organs most endangered by diabetes on a long-term basis. The glomeruli which, in principal, constitute a small vascular bundle are slowly destroyed by the burden of glucose. It is a diabetic's fate to frequently suffer kidney failure and to be connected to a dialysis machine. We have observed in 24 years of administering calcium-EAP, especially in MS patients, that diabetic retinopathy will practically not occur in diabetics. Having collaborated with several opthalmologists in Germany, and also in the United States, we are now certain that this therapy is extremely effective in retaining the function of the retina.

The kidneys as well are apparently protected in a manner unimaginable up to now with the administration of calcium-EAP (in connection with the effect of magnesium orotate) to both the diabetic and the patient with high blood pressure whose kidneys are also at risk. It is interesting that apparently there is not only a protective function, but initial forms of diabetic kidney damage demonstrated by high blood pressure and loss of protein in the urine, will disappear after a while when calcium-EAP is applied. In principle, this tendency is easy to monitor and control in reliable ways by observing blood pressure and urinalysis.

Alone, the prevention of diabetic retinopathy by the use of colamine phosphate salts has understandably given satisfaction to me and my collaborators. One of the best

opthalmologists, Dr. Morgan Raiford, Atlanta, Georgia, tirelessly emphasizes this great triumph at conventions in the U.S. The obvious control and early involution of diabetic nephropathy,i.e. the kidney disease of the diabetic, as well as the kidney disease of the high blood pressure patient are a proud result of this research. For therapy, 400 mg calcium-EAP are given intravenously about 1-3 times per week and, in addition, about 1.5-2 g of calcium-EAP and/or magnesium-potassium-EAP are administered daily in tablet form.

It is of great interest that the regulation of blood glucose levels is improved in the diabetic (Type 2) by colamine phosphate salts. For the common diabetic Type 2 at an advanced age, it is not merely a question of reduced insulin production, but rather of an inability to regulate the glucose transport into all cells. If such patients eat too many carbohydrates, the blood sugar rises excessively. If, on the other hand, they do not eat, the blood sugar level declines too far, resulting in a craving for chocolate and concentrated carbohydrates. When treated with calcium-EAP, this phenomenon practically disappears, obviously because the cell membrane-bonded regulation of the cells can return to greater normality. This phenomenon is of great interest, scientifically speaking.

In connection with treating side effects of diabetes, we have found a considerably increased need of vitamin C, especially for the kidney. It appears that more vitamin C is assimilataed when calcium-EAP is artificially introduced into membrane systems. This is why this treatment should be combined with larger doses of vitamin C. The vitamin C deficiency known as scurvy is also a disease of the cell membranes by the way.

The discovery of a demonstrably successful protection from the side effects of diabetes is a source of some pride to me and my collaborators. Have you any idea of the gigantic number of people, especially in the civilized world, who seriously have to count on a reduced life-span because of diabetes? In this area, the use of calcium and magnesium-EAP would mean a preventative and protective medicine in the best sense of the word.

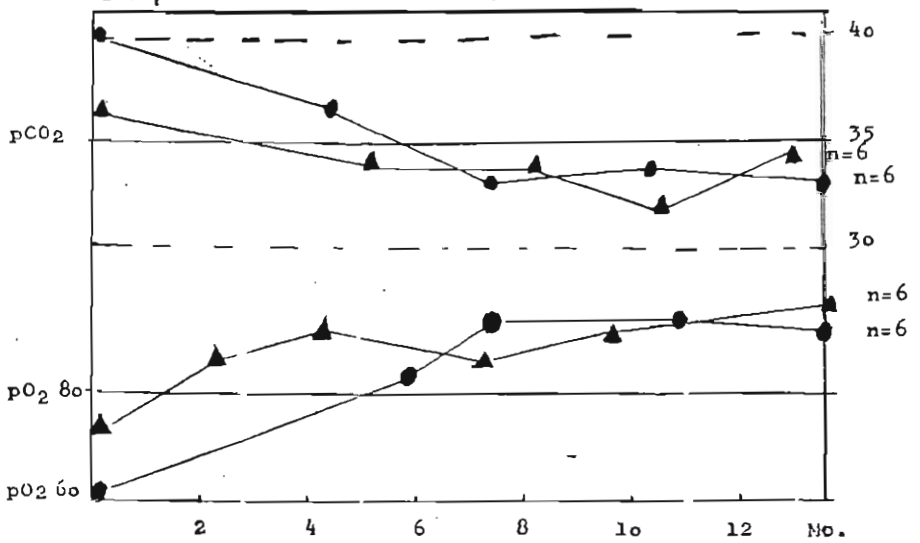
MEMBRANE INTEGRITY FACTOR

(Vitamin Mi)

Obstructive Pulm. Dyfunctions

Effects on Respir. Gas Exchanges

6-7 pills of PHOSETAMINE per day



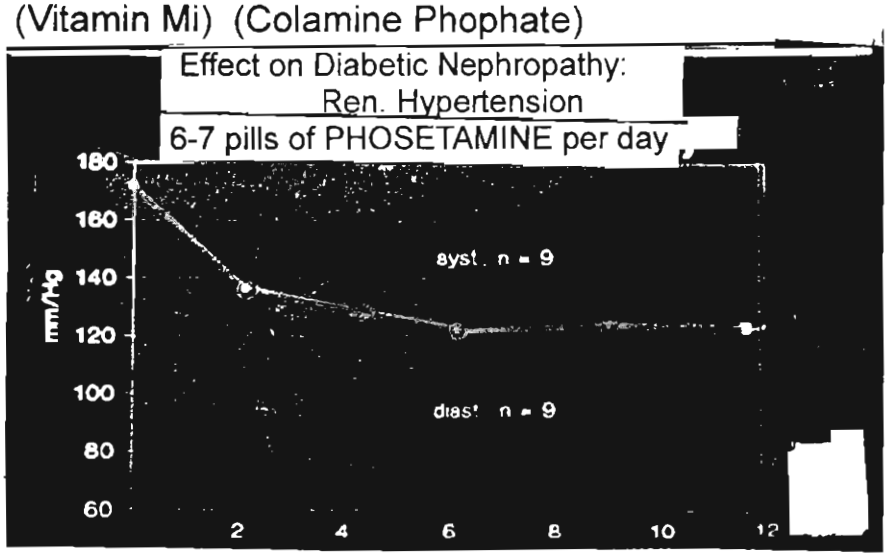
MEMBRANE INTEGRITY FACTOR

(Vitamin Mi) (Colamine Phophate)

Effect on Diabetic Nephropathy:

Ren. Hypertension

6-7 pills of PHOSETAMINE per day



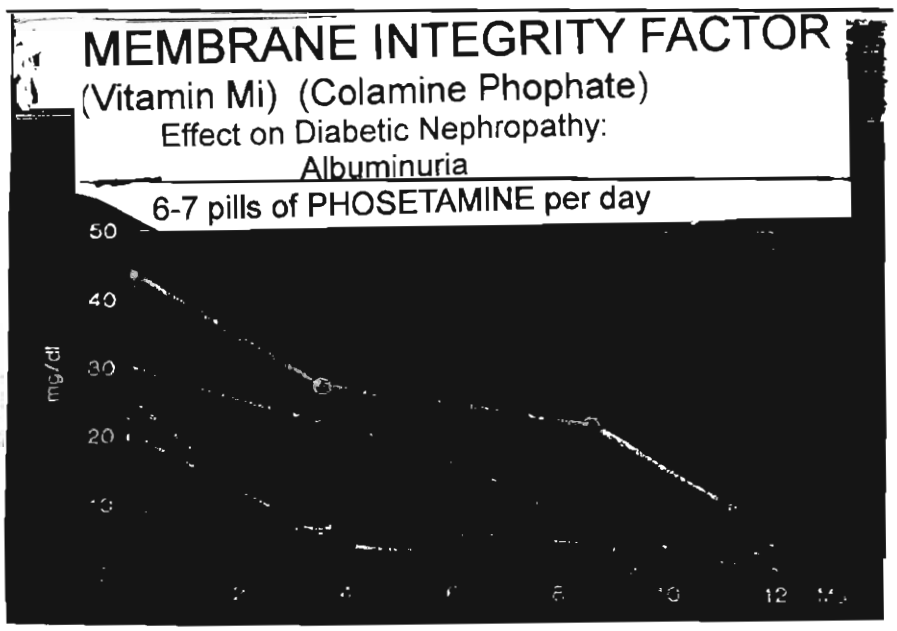
MEMBRANE INTEGRITY FACTOR

(Vitamin Mi) (Colamine Phophate)

Effect on Diabetic Nephropathy:

Albuminuria

6-7 pills of PHOSETAMINE per day



Electromagnetic Forces

We also have cause to suspect that the provision of converted energy from condenser systems is required to sufficiently activate gene-reparative mechanisms of cell plasma. These mechanisms, called oncostatins, can either block or extinguish genetic derailments on the way to a cancerous cell disorder. Therefore, it is significant to maintain an optimal condenser capacity of cell membranes for cancer. [It has been reported on repeated occasions in the scientific press that a high intake of calcium decreases the risk of colon cancer. We have observed that the recurrence of colon polyps in the cases of their earlier removal is seemingly suppressed.] *

Do you know how long approximately the entire human vessel and capillary system is? Estimates vary between 40,000 and 50,000 kilometers. You will wonder how a small human heart can pump the blood through such an immensely long and intertwined arterial system with relatively minimal power. The admirable answer is demonstrated on the testing grounds of the company Messerschmitt-Bolkow-Blohm. Their magnetic train is suspended and moved by an electromagnetic cushion, practically without friction. This is exactly how it works with the red blood particles which are larger than the diameter of the smallest capillaries. The blood particles then must momentarily "slim down" to squeeze through the passage.

Only the fact that all blood particles move on an electromagnetic cushion makes this low power drive system possible. The electrostatic or magnetic gap depends on the condenser structure of the cell membranes which have a corresponding double-layer.

Everyone will recognize that a loss of the electrostatic quality of the cell membranes must be catastrophic for the circulatory system. Increased resistance, high blood pressure, more clotting, deposits on the vessels, varicose veins, etc. will result as well as life-threatening thromboses.

*The information in brackets was added by Dr. Nieper in 1991.

During the last 24 years, we have been able to observe that for patients taking calcium and magnesium-EAP, the development of thrombosis, circulation problems, high blood pressure and the progression of varicose veins is almost entirely eliminated.

This is surely related to the fact that by administering EAP salts, the condenser functions of the cell membrane systems are repaired and maintained at an optimal level. This is true even for older patients. Naturally, this is accompanied by genuine youthfulness of the biological frame and certainly a substantially-increased life span. Calcium and magnesium-EAP is also remarkably effective against damage from extreme exposure to the sun, in particular, sunburn. Fortunately, cell aging caused by exceedingly strong light and UV radiation is prevented, or at least contained, by this therapy. This would mean that a longer life span could be attained for people living in sunny zones of the earth.

A New Vitamin

Lately, we have often asked ourselves the question whether or or not colamine phosphate salts, especially calcium-EAP and magnesium-EAP should be designated as vitamins, or as an "essential nutrient" (indispensable nutrition factor). Dr. Don R. Davis, scientist at the renowned Clayton Foundation Biochemical Institute at The University of Texas, Austin, Texas, defines vitamins as such substances that a) are indispensable for the organism, and b) must be introduced from outside since they are not created by the organism.

On the other hand, Dr. Leibovitz, collaborator of Linus Pauling on his outstanding book on carnitine, explains that vitamins can no longer be categorized as before according to criteria of indispensable need and indispensable supply from without.

Dr. Leibovitz states correctly that vitamin B3, for instance, can be generated in the human body if a sufficient amount of tryptophane is administered. The D vitamins are also routinely produced within the human body. Even vitamin C is synthesized by all higher species except man, some primates, and guinea pigs are unable to do this.

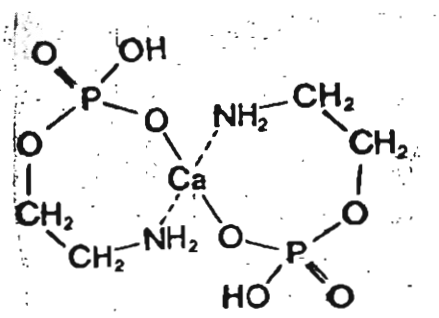
Also carnitine, vitamin Bt, which can be routinely synthesized in the liver and the muscles has to be regarded as a vitamin because of its typical function on one hand, and because of its latent dependency on an outside supply on the other.

Dr. Leibovitz also shows that the artificial introduction of such vitamins or "essential nutrients" which are indeed in part formed within the body can further optimize the condition and functions of the body. He doubts that creation has constructed and equipped man and other species in an optimal way on its own accord, and that it is possible to optimize our existence and physical integrity. Thus our life span could be far beyond the natural given standard by using well-known means from creation. Personally, I concur completely with Dr. Leibovitz's judgment.

From this perspective, we must rank the colamine phosphate salts among the vitamins or the "essential nutrients". Scientifically, they do not fit the framework accepted for conventional medicines, for instance, even less those having toximolecular structures and limited pharmaco-dynamics.

At the convention at the Waldorf Astoria at the end of June 1987 (See raum und zeit, Nr. 29), I proposed to name the new metabolic colamine phosphate salts "the membrane-integrity factor" or simply vitamin M_i.

Since then it appears that the term "membrane-integrity factor" was well chosen and lucid enough, so that both physicians and educated laymen get an understanding of the function of this new vitamin. This would be important for widespread application and significant progress in protective and preventative medicine.



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CM7(1978)

THE CRISIS OF MECHANISTIC MEDICINE
AND THE
PROGRESS OF EUMETABOLIC PREVENTIVE MEDICINE

by Hans A. Nieper, M.D.

Hans A. Nieper, M.D., was born in 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. Köhler, he pioneered the development of a chemotherapeutic approach to subcellular cancer dysregulation dynamics in 1958. 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 Admiral Ruge Archives, A.K. Brewer Science Library, Richland Center, Wisconsin 53581.

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 and glycolytic enzymes are required for this process.

Hans Nieper is a founder of the German Medical Society of Cardiovascular Disease and of the *Medical Week Baden-Baden*. He is currently the General Secretary of the German Society for Medical Tumor Therapy, and is a member of the Board of Trustees of the International Academy of Preventive Medicine.

Dr. Nieper's hobby of many years has been gravity theory and research, and his work in this field has attracted the attention of scientists at NASA and earned him a citation in the prestigious "Two Thousand Men of Achievement". Preliminary data on the planet Jupiter, obtained by NASA, supports Nieper's gravity theory, and it is expected that NASA's "big tour" exploration of this planet's gravitational field will further confirm his theoretical position concerning gravity.

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

Introduction

For years it has been obvious that medicine is increasingly getting into a crisis. The crisis concerns the mechanistic concept which has dominated medicine for over 50 years and the current delivery of health care to the populace in industrialized nations.

The Mechanistic Fallacy

It is very worthwhile to search for the roots of this development. The concept held by medicine, which I designate as being mechanistic, began with full intensity in Europe and in the United States in the era after Paul Ehrlich when, under the influence of the fast-growing technology, everything in medicine was thought to be measurable, comparable, subject to being

manipulated, constructed, or to be visualized. Certainly, our existence of body and soul (mind) is physically bound to definitions concerning mass or energy. Nevertheless, the multitude of inter-relating factors which make our living existence possible, presents a hopeless tangle for the relatively crude and rigid investigative methods which have come to dominate medical science in the last decades. These mechanistic methods have undoubtedly brought great medical success, for instance in surgical techniques and in the conquest of infectious diseases. At a closer look though, these euphorically celebrated successes concern either technical manipulations and related fields or attacks on diseases which arise by intervention of foreign organisms from the environment such as, bacterial or viral infections. However, the glamour undeniably fades when the successes, which have been achieved in the treatment of diseases that are essentially due to endogenous changes in our own physical existence, are analyzed. We could proudly point to the treatment of diabetes and of pernicious anemia, perhaps also to the treatment of cardiac insufficiency with digitalis, but beyond these therapies the current therapeutic concepts resemble a rather failing compromise. They are failing because the functional and metabolic definition of disease given by present-day mechanistic medicine does not adequately describe reality and has therefore often been a misleading guideline for the development of new therapeutic concepts.. Just think of the fact that almost any kind of disease is merely the expression of an abnormality of one's bodily and mental existence. To consider a disease as a separate entity and to try to heal it without integrating it with the bodily and mental existence does not make sense.

Now and in the future it will be impossible to control cancer—which has been traditionally uncontrollable—by means of agents which have a systemic toxic action and damage the organism. External actions such as those arising from radiation therapy or from systemic-toxic chemotherapy will never solve the problem, simply for the reasons of elementary definition.

Does anybody really think that heart attack deaths can be prevented by nitrates which are cell respiration poisons, by Carbocromen, by Nifedipine, by propanolol or by clofibrate? All of these chemicals are foreign to the body. They interfere with and damage basic metabolic processes. Does anybody really believe it is intelligent to treat diseases of the immune system by damaging this system, for instance with Azathioprine? Is it not better to seal immunologically-attacked membrane systems against further attacks with the aid of eumetabolic substances? Does it not reveal the mentality of a mechanistic "plumber" when metabolic calcium imbalances evident in teeth or bones are treated with sodium fluoride? Are these diseases then the result of fluoride deficiency? Certainly not! Although for years it has been reported in the medical literature and in the public press that sodium fluoride causes chromosome damage even at very low concentrations, that it increases the frequency of cancer by about 15%, and that it very likely produces partial mental damage to infants and children, the continued habit of prescribing

sodium fluoride shows that the mechanistic automatism in medicine is evidently unbroken.

The scientific experiment is only one of several methods of research in the natural sciences. The result of an experiment can elucidate a given problem but is always affected with the disadvantage of tubular vision. Mostly it provides no, or misleading, information about complex inter-relationships. This fundamental phenomenon which every experienced theoretical scientist knows may explain why the so-called experimental-mechanistic medicine has reached a therapeutic cul-de-sac, as I have mentioned above. In view of the living bio-entity the therapeutic concepts which dominate the present-day medical thinking everywhere are very primitive.

Renowned thinkers in philosophy and in physics have always esteemed principle-theoretical models, particularly in cases when the number of converging factors becomes very large. In general the measuring experiment is of secondary importance only since it can ascertain details of a model concept held in the mind. When measurement becomes difficult then empirical research methods must necessarily become more prominent. It is not accidental that such a development can also be observed in modern physics, for instance in the field of gravitation research.

The living bio-entity is subject to innumerable converging and diverging material and electrical phenomena which are not accessible by experiments nor by computers. At any rate, it is not possible to obtain by such means an adequately complex representation of the bio-entity of a certain patient. It is not accidental that here too, medical empiricism proves daily and a thousand times to be superior to the mechanistic-medical thinking: success in economic terms, and also in professional satisfaction.

Mechanistic Medicine Will Bankrupt Us

At this point begins our second basic reflection. The mechanistic concept of medicine has over the years become more and more expensive, for the reasons mentioned above, and still it has remained forever a failure. The result is that the physicians realizing the ineffectiveness of their remedies stand with their backs to the wall, and that the activities of mechanistic medicine become mainly reduced to the care of sick people (curative medicine). The past has shown that a tenfold increase of expenditures for treatments according to the concepts of mechanistic medicine has hardly been worth it. Another tenfold increase—which would be utopian—would still not bring any further progress.

Since the medical schools and universities know and teach little else than mechanistic medicine and the care of sick people, they are often the source of misleading advice to government agencies concerned with health care.

The Rise and Fall of Medical Schools

When taking a closer look at this complex of questions it is frightening to find how the guidance and leadership of the medical schools has declined, for instance in comparison to the medical university faculties at the beginning of the century. By decline, I mean the loss of philosophical and theoretical background qualification. It is my opinion that the specialized academic training should not be separated from the "universitas literarum" of the elite. Otherwise we have a trade school and not an academic education center of conventional claim. However, only the latter is qualified to act as a guide into the future for state and society.

The Crisis at Hand

It so happens that this crisis of scientific medicine and of the treatment of disease coincides with certain sociological and economical developments. Economic difficulties arising from the realization that growth is limited, lack of energy or overpopulation may be a reason for that. The comparative study of Western European nations shows furthermore that certain manipulations in economy and society, which necessarily have a negative economic overall impact, have decreased the productivity. This leads to the situation that suddenly the costs of mechanistic medicine with the result that the patient, and the doctor, as well as the choice of treatment and therapeutic progress, become more or less gagged and cuffed. As far as therapy is concerned, the restrictions will naturally be made in line with the thinking of mechanistic medicine which is, as I have explained before, methodologically fossilized. A further consequence of this development is the paralysis of pharmaceutical research which should at this time be activated to change over from mechanistic to eumetabolic preventive medicine. And a further result is that under these conditions the patient can often be provided with only a primitive form of mechanistic therapy which does not satisfy modern requirements. The patient who wants to be treated in a progressive way has to pay for it out of his own pocket and is not reimbursed by medical insurance. Again, as so often before, the socialist solution turns it into a unsocial one. Anyone who knows the conditions in England, Sweden, Italy or the emergent development in West Germany will confirm this statement.

Unfortunately, we fear that the problem of sky-rocketing costs in public health care will be dealt with similarly in the United States, as recently happened in Bonn through a scientifically and philosophically unqualified socialist minister of public health. The West German law aimed at reducing health care expenditures hardly restricts the methods of mechanistic medicine and overdone care of sick people, whereas on the other hand it strangulates methods of early diagnosis to prevent diseases and limits medication for preventive medicine and protective therapy.

In addition, medical education is directed in such a way that physicians almost completely lack any training in preventive medicine. This makes it

difficult to change the emphasis in the physician's activities from mechanistic medicine to preventive medicine. Such a state of affairs shows what the task of an organization such as the International Academy of Preventive Medicine should be.

Preventive Medicine: Cancer

You will ask me what I consider to be preventive medicine or, more specifically, preventive medical treatment. In reply I shall give a brief but very concrete overview:

In the field of malignant diseases we shall make decisive progress only if

1. The patients are diagnosed correctly in early stages of cancer
2. Immediately after the diagnosis is made, and eumetabolic nontoxic protective therapy is established and continued for an unlimited period of time, regardless of the histologic findings and other necessary measures, particularly surgery

Methods of early diagnosis to detect cancer will be developed mainly from blood tests such as the EMT-test. X ray examinations, also mammography and endoscopic methods, cannot always be considered as methods of early diagnosis, though, for example the Japanese serial examinations of the stomach with the gastro-camera are excellent and have been successful for that purpose.

We know from extensive studies that a tumor consisting of one million cells—perhaps ten or even a hundred million cells in slow-growing tumors—is the maximum size which can still be overcome by the immune defense of the body. Since a nontoxic, protective long-term therapy of malignant diseases has as one of its essential goals to activate the patient's immune defense system such a therapy must be initiated immediately after the diagnosis of cancer is made. This therapy must also be continued for an indefinite length of time. It does not really matter what the details of the diagnosis were or are. According to the present state of knowledge the following measures implement the preventive and protective cancer therapy.

Avoidance of a cancer-promoting diet. Despite differences of opinion there is a dependable scientific basis for such a diet.

—Continued use of active agents which are free of systemic toxicity but have an anti-cancer action. Among such agents are the nitrilosides with mandelonitrile as the active principle. The classic drugs used in cancer chemotherapy act by interference in the cell structure. After some time this results in structural damage in the patient's organism which cannot be eliminated. This approach is therefore largely unsuitable for protective cancer therapy. Only suitable are eumetabolic substances which interfere merely with the metabolism of the cancer cells and which have no lasting secondary effects.

Nitrilosides are such substances. We may add to cancer-inhibiting therapy with hormones to this category also.
—Of great importance are enzymes, e.g., bromelaine, which expose the membrane antigenicity of the cancer cell.
—The immune defense capacity of the organism must be activated. This absolutely requires being supplied with zinc, copper, carotene or vitamin A, and thiamine.
—The "unspecific" tumor defense must be activated. This defense against tumors is based mainly on the activity of macrophages which contain active lysosomal enzymes. Activation is achieved by BCG or C parvum injections. It is desirable to produce a subseptic reaction.

This is, in short, a model for the protective-therapeutic, long-term therapy of cancer. Genuine preventive measures would aim at avoiding a cancer-promoting diet, at eliminating carcinogens from the environment, and at leading a consciously healthy way of life.

Preventive Medicine: Heart Attacks

Heart attacks, arteriosclerosis and inflammation of blood vessels represent by their number an immense threat to our health. However, the traditionally used protective measures are scientifically not less primitive than those used against cancer. They continue to be used despite large clinical studies which have proven the ineffectiveness of clofibrate, of nitrates, of anticoagulants, and of coronary dilators. On the other hand, we know from experimental and empirical studies that magnesium salts, essential phospholipids, and also a diet which avoids carbohydrate loading improve the elasticity of cells permanently and lower the heart attack mortality by over 90 percent. Particularly effective in this respect is microgranulated magnesium orotate in daily doses of at least 2 grams. These are classic examples of eumetabolic treatment, as the above-mentioned substances or their active components are entirely normal body metabolites. From a preventive medical point of view we should recommend use of unrefined salt which contains magnesium. The intervals between meals should be long enough so that fats and other substrates from the preceding meal can be sufficiently cleared. The fact that nicotine and alcohol are damaging to the blood vessels needs no further explanation. The intake of sodium should remain low, but on the other hand, the intake of chloride should be high which automatically clarifies the role of magnesium and potassium chloride in the prevention of blood vessel diseases. Magnesium also prevents metabolic imbalances which result in myocardial necrosis. Occlusion of the coronary arteries is of minor importance in the development of myocardial infarction. Medical teachings often disagree with this statement but are out of date. It is important that thromboses which develop particularly in older people are "digested" and prevented by bromelaine, a natural pineapple

enzyme. This concerns the coronaries and other arterial regions and particularly thromboses and phlebitis of the leg veins.

Immune reactions possibly prepare the way for arteriosclerosis. Immune reactions against polyglycolethers which are being used in kitchen detergents have become a public issue. In the gamut of human diseases numerous other immune diseases are important, ranging from gastritis to colitis to immunopulmonitis, to nephritis and as far as multiple sclerosis. The method of choice is not to damage the aggressive immune system with toxic agents but to seal membrane systems which have been attacked. This can be done with calcium and magnesium salts of 2 aminoethanol phosphoric acid (calcium EAP, magnesium EAP). Electron-microscopic tests have shown that membrane sealing is highly effective. Despite these findings and though the method has been known for 15 years, it is hardly used for therapy. This is another instance of application of eumetabolic substances whose subcomponents are normal metabolites.

Preventive Medicine: Other Considerations

The preventive and protective treatment of decalcification diseases of the bones and teeth is totally in the dark. Calcium therapy may be ineffective since these diseases are generally not due to calcium deficiency. Nevertheless, the long-term therapy of osteoporosis with all the substrates necessary for the formation of bone, including magnesium and phosphate, vitamin D, acid diet and exercise therapy, is hardly applied.

Such negligence also applies to the treatment of structural cartilage with gelatin, calcium orotate, and preparations of fish cartilage, to mention only a few possibilities.

My special concern is to point to the possibilities gained by the application of lithium orotate. Five milligrams of lithium from lithium orotate are clinically equivalent to about 100-120mg lithium from lithium carbonate or from lithium citrate. Use of lithium orotate makes lithium therapy free of problems because it does away with the need for laboratory controls of the blood lithium level. This eumetabolic substance is suitable not only for the treatment of bipolar psychoses but also for the treatment of episodic alcoholism due to latent depression, and possibly also for the treatment of criminality. Psychiatrists at Yale University have found that lithium therapy lowers aggressivity of criminally-inclined persons markedly.

Eumetabolic Therapy and Social Movements

In order to achieve successful results with these therapeutic concepts it is not only necessary that the treatment is started early and continued indefinitely, and that the substances used must be eumetabolic, i.e., free of all toxicity. However, the cooperation and insight of the patient is essential for optimum results. We know from the results of our current nontoxic long-term therapy of cancer that the cure rate of fully informed and thus most

cooperative patients is about 2.5 times higher than with patients who are unable to cooperate. By "informed" I mean the development of an increased understanding for the problems of interaction between organism and disease. The patient must be at least mentally prepared to have an open mind for these problems and an adequate willingness to learn. We know from documented experience that persons belonging to organizations such as the International Association of Cancer Victims and Friends, the Cancer Control Society, the Freedom of Choice group, the National Health Federation or other lay groups benefit disproportionately more than other population groups from modern preventive and protective therapeutic developments. Europeans, particularly West Germans, are about 20 years behind with respect to this state of mind.

I consider the citizen's movements in the United States as a very desirable phenomenon which will help to convert the therapeutic reorientation into political expressions of what people want. The crisis of medical science and the health care reform for which I plead here are embedded in other developments, as well: the mechanistic era comes to an end. So will it be with technology and with sociology. The future can belong only to an ethical individualism dedicated equally to enrich the future and better the lives of individuals as well as of peoples.

In conclusion, I would like to invite all progressive health care doctors and friends to join with the IAPM in the furthering of these ideas so as to enrich our lives and secure our future as persons and as a civilization.

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