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International Society for Infarct Control
Executive Offices: 7060 Schorndorf-Haubersbronn
Kastellstrasse 11

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Circular letter 28

Coronary heart disease: Coronary super sufficiency ?
and not like assumed hitherto: Coronary insufficiency ?

Since now and then voices of caution have been heard against the use of Glucoside medication for coronary heart diseases and new infarcts, we are taking this occasion to once more present our scientific point of view in this connection.

Generally, it is assumed (as per the short course in the book "Internal Medicine", issued by G. Schettler, 4th edition 1976) that

"the question in connection with severe coronary sufficiency according to theologic significance of the vascular lumen (4th potence) in most cases is about direct organic restriction of the coronary reserve down to the reduction of passive perfusion". "Further, it says: Through increased O₂-extraction, only insignificant compensation can be attained."

However, what was measured by Cohen, Holmberg and Carlsten in reality ? (American Journal of Cardiology 1966, page 153 ff; 1976, page 486 and 492 and the pages following.)

1. During rest, instead of a lowered coronary blood flow (which does not rise through movement), a NORMAL coronary blood flow was measured (which increased through movement NORMALLY).
2. During rest and movement, instead of an intensified and increased oxygen extraction, a clearly REDUCED oxygen extraction was measured (in the blood of coronary veins there were increased values of – evidently unused – oxygen).
3. Instead of an anticipated evenly remaining LOW lactate extraction during rest and movement, there is a subsiding lactate extraction with higher production of lactate, i.e. a lactate softening.

Both facts,

1. the normal coronary blood flow during rest , which rises linearly during stress, and
2. a reduced oxygen extraction during rest and movement indicate, that instead of an anticipated coronary insufficiency there possibly may be a coronary super sufficiency.*

*Due to a regrettable printing error in Circular Letter 27, the words "Coronary super inefficienc printed instead of correctly: "Coronary Super Sufficiency."

Further allegations, that a slow-down of the extramural coronaries would clearly follow after the 4th potency of the stenosis radius, it would mean, that only 21.0% of remaining blood flow is attainable already at the remaining diameter of 70% - which is at a stenosis of 30%. In reality, however, it shows, that it takes a stenosis of 80% to really effectively reduce the flow and some Authors even claim it to be 90% .

Rau, Heberer and Loehr already did state in their book "Aorta and large arteries", why it has to be so. Relation to the 4th potency of the stenosis radius exists only for those tubes, allowing free and unhampered drainage behind the constriction. However, since an artery and capillary bed with significant peripheral pressure resistance follows same, it is not the 4th radius potency which becomes effective also accordingly to the law of Poiseuille, but it is the pressure gradient of the drainage tube! In addition, since according to Thoma (before 1923), Doerr (1975), U. Kreinsen (1971), Kern (1968) the extra mural coronaries, just like the remaining artery system, - as far as they athero-arteriosclerotically changed - are DILATED but not stenosed (In most cases they become stenosed not until postmortal stiffness takes place with about 1/5th of the diameter present during life!) (Doerr 1975: "Here in Heidelberg we are aware of dilatative athero-arteriosclerosis in aged people, but, indeed, outside of Heidelberg, it is not known!"), because, in other words, the coronaries are dilated with Athero-Arteriosclerosis and therefore, the organic coronary insufficiency in general would belong to rarities.

In this direction, a re-orientation should be taken into consideration to the effect, that

1. the relative coronary insufficiency as hitherto assumed in coronary heart disease, is in reality a coronary super sufficiency, and
2. that the hitherto assumed organic, or "atheromatose", coronary insufficiency is in reality a dilatative arteriosclerosis signifying consequently also an ORGANIC CORONARY SUPERSUFFICIENCY.

However, both of this means, that nothing shall be feared of g-Strophanthin in new infarcts or in coronary heart sickness. To the contrary, since we evidently have to do here with an O₂ - utilization disturbance of the Myocard cell being favorably affected by Strophanthin (as it is attested to by measuring of ph-values by von Ardenne 1970/71, which quickly normalize), the use of Strophanthin for coronary heart ailments as well as for new infarcts is, the same as ever, clearly indicated

SYMPOSIUM OF MAGNESIUM, Stuttgart-Hohenheim, Sept. 29-30, 1977.

During two days of meetings and 46 brief lectures presentations were made and discussions held regarding the Present stage of research in magnesium and its application. The scope of subjects included agricultural science of soil, plant physiology, animal physiology, animal medicine, human nutrition, human nephrology, sport medicine, human biology and pathology, with cardiological therapy being the highlight of the Conference.

The very small circle of participants and listeners amounting to not more than 65 people stood in no relationship with the significance of the material presented, in any way; however, we are convinced that the subject shall be presented before larger audiences in only a few months.

GENERAL BIOLOGY

From general biological viewpoints, magnesium is considered to be a catalyzer, due to the fact that there is a constant inclination for it to be joined with Adenosintriphosphate and form a complex of three teeth by which the ATP-molecule stabilizes and is stiffened and only by the fact that the molecule has been stiffened, one or two of Enzymes to be split (like: Muscel-ATPase at contraction, membrane-ATPase [Ion pump] by virtue of which finally the transfer of energy takes place.) (H. Rieder, Tutzing)

Syndromes of lack of Magnesium

Chronic lack of magnesium caused by nutrition, on one hand, has been characterized by a number of speakers as a widespread phenomenon among the population in general and on the other, as clear biological danger. This lack of Magnesium not only produces a large palette of generally vegetative symptoms (Matusczyk-Prien), which could then be well affected by magnesium therapy. The chronic lack of magnesium generally leads to increased cell membrane permeability and as a consequence hereof is followed by Ca- and Na-Influx, and, on the other hand, to K- and Mg-Efflux. Besides, due to lack of magnesium, proportionately increased catecholamine reaction is attained, and the cycle Adenosinemonophosphate is being activated, by which, again, membrane permeability is secondarily increased. This increased Katecholamine activity may be measured in urinary output. By affection of catecholamines (because they also agree with local Fibrocytes) there follows local stimulation of the collagen synthesis and Mucopolysaccharide synthesis. Impressive electronoptical pictures proved the propagation of collagen content (T. Guenther, Ising and Gelderblom, Berlin).

HEART GLUCOSIDES AND MAGNESIUM

Having taken g-Strophanthine as an example, Krawietz and Erdmann (Giessen) showed that the affinity of the heart glucosides toward the heart glucoside receiver is increased through Magnesium. The Authors underlined that this had clinical relevance!

Magnesium, a necrosis prophylaxis?

Classen and Jacob (Hohenheim) showed us, that Magnesium-Aspartate-HCl during animal experimentation (female rats) with adrenic cardiopathy intensified by Ephedrin may considerably lower (up to 40%) the frequency of necrosis. Kahles (Goettingen) reported about interesting findings at the heart lymph during experimental myocardium ischemia (hearts of dogs). A lymph acts like a biological "amplification" system. It immediately indicates when and what Iones exit from the cardiac cell. Furthermore, we succeeded, shortly after Pharmacodynamic stress on the heart was effected by a cardial lymphsystem acting like a biological amplifier to establish significant Calcium losses of the myocardial cell.

Magnesium aspartate better than Magnesium salts.

Mr. Von Jagow (Munich) reiterated the statement which had been made known to us at the Baden-Baden meeting of the IGI (1973) by Ring (Frankfurt), that Magnesium Aspartate penetrates the cell membrane better than Magnesium salts and that therefore, Aspartates (supplementary by Nieper: especially also Orotates) find better therapeutical application than salts.

Coronary sclerosis does not cause lack of magnesium.

Interesting points of the report by G. Brandt (Erlangen) (post mortal Magnesium concentrations in myocardial And skeleton muscles, liver and the brain occurring in various basic human ailments) were that critical Magnesium loss in the tissue is typical for neurosis, but that coronary sclerosis does not cause any changes in the Magnesium value of the myocard!

Magnesium in cardiological general praxis.

Without any doubt, both of the therapeutic reports were highlights of the meeting. G. Schreiber, General Practitioner from Gluecksburg, reported about his first attendance of coronary and myocardial Cardiopathy by Magnesium-Sulphate injections. (Schreiber attributed his choice of therapy, by the way, to a suggestion by Catel. Here are some excerpts from his own report: "More than 1000 injections of Magnesium salts during ambulant treatment as well as office visits for the purpose of controlling cadio-vascular ailments as a prophlaxis and first attendance of heart infarcts proved that Magnesium is a multi-applicable, unequaled specific matter without causing any side effects or interactions. In all of the 30 cases of infarcts treated in such a manner, an infarct death was prevented and infarct repetitions were blocked out. Of all the compounds, Magnesium Sulfate, 10 ml 10% within the substance and compounded, has proven itself to be the best and it is superior to other medicines." Already earlier, G. Schreiber had reported about his Magnesium experiences in heart therapy (1959 and 1972), and lately, he wrote in "The Practician," 12 (1976), page 2513-2520, with an adjoining fact: "Researchers in matters of coronary blood vessels were able to win most valuable scientific comprehension as to how infarcts occur, however, today the efficiency of therapeutic consequences could only little be estimated."

During the discussion about Schreiber, before all, Nieper agreed, who added, in support, that the findings of Schreiber only confirm such earlier ones by B. Mackie Shapiro 1956, Parsons, Butler and Selars, Agranat and S.E. Browne (Literary statements in circular letter 24!).

Lowering of infarct incidence through Magnesium.

The highlights of the Symposium was undoubtedly, Nieper's contribution: Lowering of infarct incidence through Magnesium-Orotate and K-Orotate in combination with Bromelain. The entire report is available, upon request, from : Brewer Science Library, 325 N. Central Ave., Richland Center, WI 53581. We also have a web page which is www.mwt.net/~drbrewer. Here, we may present to you only the following: Above mentioned authors, Parsons, Browne and others harmoniously agreed that daily injection (of substance) of 20-50ml of a 5-10% solution of Magnesium-Sulphate in groups of patients who could be called cases of severe instable Angina or post infarct angina and which is charged with an infarct mortality rate of over 22% in two years, has lead to a mortality rate of less than 2%. By this therapy, lowering of infarct mortality is of a dimension which exemplifies by biostatistic observation the limit of the absolute possible. These results, having been well remembered, were reported by different authors on different occasions, the largest collective emanating from Parsons and Hobart. The misinterpretation at that time was: Magnesium impeded inclination to thrombosis by which in turn coronary thrombosis were prevented, and therefore, the reports had been filed away for that episode, at that time.

We know today, based upon the myocardial “thinking example” about infarct – and inasmuch as the entire magnesium symposium at Hohenheim was built upon such myocardial example,- that the interpretations of that time were erroneous. Not until the new thinking process example came about could the empiricism of that time be understood! Nieper said literally: “We have to add that lysosomal chain reaction (Kern and von Ardenne) must undoubtedly be regarded as being the main cause for myocardial necrosis and heart infarcts.”

Comparing Nieper’s own mortality rates with other collectives:

Cleveland Clinic (on first place, Nitratherapy and anti-coagulants)
2 years: 21%, 4 years: 36%

Rotterdam-study (Erkelens) (1550 patients with and without anti-coagulants without important statistical differences)
2 years: 19%, 4 years: 32%

Magnesium-Orotate & Potassium-Orotate plus Bromelain
2 years: below 2%, 4 years: below 2 %
N>135 N>75

Controlling testing is ethically not allowed here (in Germany).

During the discussion, Floerkemeier-Vallendar objected to the fact that Nieper’s collective had not been compared with own collectives. Exclamations from the audience and Nieper’s statement that this could not be done ethically brought the discussion to an end.

Infarct research by pathologists has been stimulated.

Interesting as background information was the remark made by Brandt (Erlangen), that the new thinking concept had lead pathologist to a feverish scientific activity, and that until now, infarcts had been regarded as a scientifically closed chapter. (we vividly remember the statement made by Doerr (Heidelberg) during 1975: “...my colleagues are not interested in infarcts”.)

The new myocardial thinking process example of heart once more has passed an examination in the field of practical application.

ATHEROSCLEROSIS PROBLEMS

Recently, Professor Mohler of Zurich called our attention to some sections of a lecture by Prof. H. Luginbuehl of Bern (The Institute for Animal Pathology) which would be suitable to support “some of the Kern-vonArdenne thesis.” We contacted Professor Luginbuehl and he was so kind to let us have a preprint of his lecture, which shall be published in the Fall 1977 under “Advances of Veterinary Medicine and Comparative Medicine.” (Academic Press, New York)

Under the heading of “Comparative Atherosclerosis,” H. Luginbuel (together with G.L. Rossi, H.L. Ratcliffe and R. Mueller) is presenting a comparative summary about the occurrence of Atherosclerosis as well as Atherosclerosis in connection with Heart Ischemia and Heart Necrosis in dogs, pigs, rabbits, rats, house birds, as well as animals of the zoo. Today, Atherosclerosis is observed by customary criteria without taking into

consideration the facts stressed by R. Thoma and W. Doerr (i.e.: Firstly, Atherosclerosis is, initially, a Media-process not primarily but secondarily an Intima-process; and secondly Atherosclerosis eventually does not cause a constriction of the clear capacity of the vessels, but their dilatation!).

The only section conforming with our views (as far as emanating from B. Kern), is Cholesterine. Here is what the section says: "Cholesterine, with regards to its participation in the creation of Atherosclerosis is in a bad press. Stressing its initial role during this ailment process is of an opportunistic character, at least to some extent. Cholesterine is an easily manipulated parameter. If we compare the abundant literature available about Cholesterine-induced Atherosclerosis with factual knowledge about the cause contributed by this substance in Atherosclerosis, it becomes clear in our minds, that its dignity has greatly been exaggerated. Undoubtedly, the blood cholesterine speculum is an important parameter, however, it may be held, that low blood cholesterine does not protect against Atherosclerosis and that high blood cholesterine does not effect Atherosclerosis."

Professor Luginbuehl's test did not include horses. However, he surely is aware of the findings by Max Buerger, a veteran of Gerontology and Lipoid research, who had pointed out with fine irony, that HORSES do develop Atheromes to an excessive extent and that they are not fed with butter, bacon and eggs, however, with exactly such vegetarian lean food as generally recommended as an antidote against Atheromes...Most interesting, however, in Luginbuel's work there is the quotation of a statement by Barnes and Barnes (1972), that availability of Coronary Atherosclerosis and myocardial infarct usually appear together with low temperature causing hypothyroidism.

Luginbuel's findings pertaining to Cholsterine confirm with those of H. Schafer and M. Blohmke ("Heart disease through psychosocial stress," please compare our book discussion Circular Letter 26), who, based upon their own epidemiological field studies, had stated the following:

"The frequency of the classical risk factors CHOLESTERINE and REDUCED VITAL CAPACITY in the group of symptom carriers of coronary heart diseases is only very little increased. At the present, Cholesterine is being allotted too much significance still, to which fact Pincheerle (1971), Frank among others (1973), Weiss (1973) and Cochrane (1975) besides others are also calling our attention." (Page 165)

Experience and Practice

As a result of the Magnesium conference in Hohenheim we wish to again make reference to Dr. Nieper's recommendations pertaining to Magnesium doses (please also refer to Circular Letter 17).

It is interesting to note, that during the Magnesium conference at Hohenheim, Professor Leder of the Freiburg Institute Fleckenstein expressedly labeled Magnesium Therapy as a calcium-antagonisstic Therapy and further that Prof. Leder-still having been a student of Buechner – especially pointed out that lysosome were able to produce necrosis.

In advance it should be stressed, that Magnesium Therapy orally is recommended only for a current long-term treatment, however, not in case of an acute attack for which clearly the injection therapy by Schreiber-Parson-Brown with Magnesium sulphate (please read the Report about the Magnesium Conference at Hohenheim) is recommended. Besides, Nieper himself reports, that he perlingually combines his Magnesium Therapy often with Strophanthine. In our opinion, never should Strophanthine perlingually be forgone prior to and during an acute attack! (Strodival or Strodival Special, please read Circular Letter 27.)

Once more, here are Nieper's recommendations:

Doses of K-Mg-Aspartate as prophylaxis for myocardial necrosis, to reduce intrapulmonary (Asthma and Hypercapnia), relieving the r. heart, and activation of the Cancer-Henseleit-Cycle (Decontamination of Ammonia and the reducing of CO₂ through activation of carbamide urea synthesis):

as a rule 2 g daily, especially recommended as supplement or as an infusion. Otherwise orally. Doses of Mg-Orotate, as a rule 2.5-3 g daily, orally (5-6 tablets). It takes about 6-18 months to reach maximum improvement of vascular elasticity. This is the most effective substance for the treatment of Arthritis and Arteriosclerosis, and also very effective for Angina pectoris.

Small doses of Li-Orotate (for instance 60 mg daily) work synonymously by displacing cellular sodium.

Potassium-Orotate is experimentally for the idiopathic necrosis of the heart of a BIO-Hamster the most effective Monosubstance with regards to prophylaxis AND cure of necrosis.

Clinically, it is, before all, surpassingly effective, after a latent period of about 10-18 days. Doses, as a rule, 300 mg daily, only after an appropriate test, 600 mg daily. Mg-and K (Li-) orotates are the means of choice for the prevention and treatment of damages to the rhythmic center and impulse conducting system, because Orotates do have an affinity to the Pentose metabolism of this tissue.

Hans A. Nieper, M.D.

Additional Remarks:

In the accordance with the principles of our Society which cannot and may not tie itself down to a single remedy, any remedy is welcome that performs better with the myocardial thinking process of heart infarct than all the other therapies hitherto existing which base themselves upon the coronary principle of thinking. This is why we have, this time, reported in detail about Magnesium. As stressed in earlier Circular Letters, we recommend in accordance with the Fleckenstein requirement:

"No Glucoside without Calcium-Antagonists" to be administered, the best is Strophanthine with Magnesium combined.

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