Employing orthomolecular substances [I] successfully in the fight against infectious diseases, chronic inflammation, allergic disorders, arteriosclerosis and cancer

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Ladies and gentlemen,
colleagues,

The REASON I am giving this lecture is the following:

VITAL scientific information is available which has been largely withheld from us in the past — simply because its dissemination is not driven by commercial interests.

What is this vital information? How can it help us in our day-to-day work? What are the concrete benefits for our patients?

I'll give a brief summary: You can effectively curb or stop the spread of the following diseases in the body right away:

- infectious diseases, e. g. flu, herpes simplex, pneumonia, cystitis
- chronic inflammations, e. g. ulcerative colitis, gastric ulcers, polyarthritis
- arteriosclerosis
- allergic disorders, e. g. hay fever, neurodermatitis, urticaria
- cancer

Two examples of the results of treating cancer:

A Swedish research team led by *Dr. Astedt*, of Lund University reported on the treatment of breast cancer: »Metastases *had already formed in the patient's brain as a result of the breast cancer. Radiation treatment and cytostatic drugs were unsuccessful. Treatment with blockers* — and I'll explain in a minute what exactly these are — *brought about a regression of the cerebral metastases and other symptoms. A year after being treated, the patient was symptom-free.o*

Another report was published by scientists at the University of Tokyo led by *Dr. Suma: ›vi patient with advanced inoperable ovarian cancer was successfully treated. The cancer had already led to metastases and peritoneal exudate in the patient. Even at this advanced stage, the cancer was arrested with enzyme blocking therapy. The examining doctors monitored the course of the disease for several more years, finally concluding with the encouraging report: „Three years after the start of this treatment the patient was still completely symptom-free ".o*

I've begun with these case studies so that you know straight away how important this issue is which we're talking about.

Orthomolecular substances are natural substances which nourish and protect the cells such as vitamins, minerals, trace elements, amino acids and protective vegetable substances such as beta-carotene. At least 45 such cell nutrients and protective substances are vital for man. They are involved in a complex metabolic process. If the organism is deficient in *just one* of these micronutrients, the outcome can be fatal.

The term *orthomolecular* was coined by *Linus Pauling*, winner of two Nobel prizes, and comes from the Greek *orthos* meaning good, right, suitable, appropriate — and the Latin *moles* meaning mass (in the physical sense) and the Latin diminutive form *molecula* meaning small mass or small quantity or even molecule (as we all know, the smallest unit of a biochemical substance).

„Orthomolecular" denotes administering the right or suitable molecule in the right quantity at the right time.

Prof Linus Pauling has defined orthomolecular medicine as follows:

»Orthomolecular medicine is the maintenance of good health and treatment of disease by altering the concentration of substances in the human body which are normally present in the body and are necessary for health.«

Colloquium staged by the International Medical Working Group *BICOM* Resonance Therapy and *BICOM* Resonanz-Therapie-Gesellschaft from 28 to 30 April 2001 in Fulda

What lies behind it? What physiological and pathophysiological processes are these remarkable results based on?

We first need to examine some basic principles, some of which are already well-known, to explain this clearly.

CONNECTIVE AND SUPPORTING TISSUE

We distinguish between

- connective tissue
- fatty tissue
- cartilaginous tissue
- bony tissue

The softer and more cell-rich connective tissue (also known as extracellular matrix or *Pischinger 's* basic system) subdivides, envelops and connects organs and supplies them with nerves and vessels. It is a reservoir for the extracellular fluid and it transports nutrients and catabolic products between the cells and vascular and lymphatic systems. Harder connective tissue forms tendons, fasciae and ligaments.

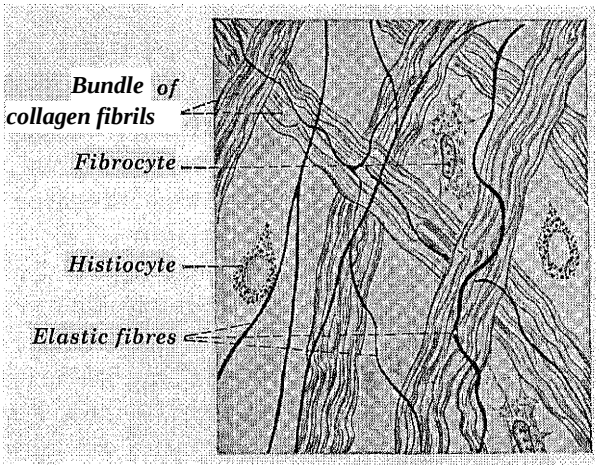

Figure 1. Loose connective tissue contains bundles of collagen fibres of varying thickness which run in several different directions. This is located in the gaps between other tissues and brings these together across areas of varying size. (From Waldeyer „Anatomie des Menschen", de Gruyter.)

Connective tissue consists of cells and intercellular substance. The intracellular substance was produced by the cells and consists of

- various types of fibres, mainly so-called collagenous fibres (so named because they give off glue [Greek kolla] when boiled), they have a high tensile strength, have virtually no elasticity and
- an amorphous (shapeless, non-crystalline) basic substance which may be liquid or fairly solid.

Connective tissue cells and fibres are embedded in this fairly liquid basic substance. The connective tissue isn't just a „vehicle" for the capillaries. The capillaries operate in the extracellular fluid; they have no contact with special organelles.

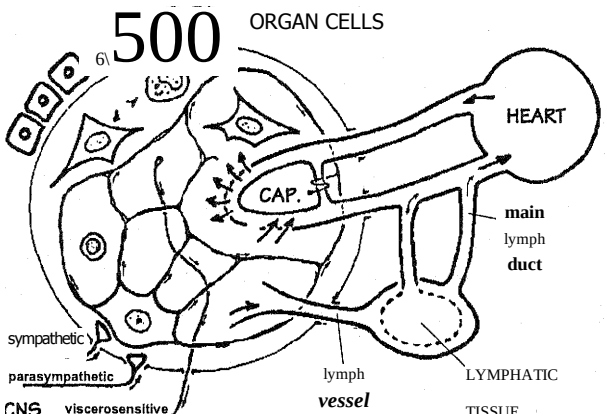

Figure 2. Diagram showing the layout of the basic system (after *Pischinger).* The connective tissue, better described as the basic tissue, is the vehicle for communication between the blood, lymph and nerve systems and organ cells. CAP. = capillaries

CNS = central nervous system

Today we are focussing on the lamellar divisions, mainly formed from collagen fibres, between individual areas of an organ (e. g. between the individual hepatic lobules) — rather like the bulkheads of a ship — the outer covering of the organs and the blood vessel walls, both formed from collagen fibres.

These fibrous „partitions" are very robust and highly resistant to strong stretching.

Let's first take a look at some important factors in collagen synthesis and physiological collagen catabolism.

SYNTHESIS OF COLLAGEN FIBRES

Collagen fibre synthesis, both its regulation and the cross-linking of individual fibres into robust bundles of fibres, is dependent on vitamin C. Vitamin C deficiency causes impairment of the connective tissue. An adequate supply of vitamin C isnecessary to maintain fibrous structures in peak condition and for their strength and elasticity. This applies to the vessel walls, etc.

parasxmpathetic,
cNs viscerosensltive

The amino acid lysine is an important element of collagen. Consequently lysine deficiency also causes impairment of the connective tissue. The body cannot manufacture lysine. Therefore lysine must be supplied in the diet.

Today there are widespread deficiencies in both vitamin C and lysine.

PHYSIOLOGICAL CATABOLISM OF COLLAGEN FIBRES

How does a mature ovum pass from an intact ovary into the fallopian tube every four weeks?

How do monocytes pass through intact blood vessel walls into surrounding organs? How do monocytes differentiated to macrophages migrate through an organ to the point where they are to be deployed, to a focus of inflammation, for example?

Bundles and layers of collagen fibre are extremely robust. It's not possible for something to force its way through them. We need to have a clear idea of what is happening here.

Enzymatic digestion of the connective tissue lies behind all these processes.

Certain points in the ovary wall are digested by collagen-digesting enzymes, so-called collagenase, and ovulation takes place. The collagen-digesting enzymes are then immediately inactivated and the opening which was created is closed up again by collagen synthesis. The enzymatic mechanisms which digest and repair connective tissue balance each other out exactly.

The same happens with the emigration of monocytes from the blood vessels into surrounding tissue and organs: The vessel's basement membrane is broken down in places and immediately closed up again once the monocytes have emerged.

If macrophages migrate through an organ to the point where they are to be deployed, they use the same collagen-digesting mechanism. Once they have emerged, the collagen-digesting enzymes are immediately inactivated and the place where they emerged is closed up again straight away.

PATHOLOGICAL CATABOLISM OF COLLAGEN FIBRES

Results from recent research reveal that expansive pathological processes make use of this physiological mechanism of connective tissue digestion and that it is, in fact, the only way they are able to expand!

This is equally true for the spread of

infectiousdiseases, chronic inflammations, arteriosclerosis, allergic disorders and cancer.

I'll now be explain in more detail, through the example of the cancer cell, how this physiological enzymatic process is „abused".

Two control commands must take effect at the same time for an incorrectly programmed cell to trigger disease in the body

- cellular proliferation
- disintegration of the surrounding connective tissue

No disease could spread through the body simply by cellular proliferation since the affected particles (bacterial cells, virally transformed cells, cancerously degenerated cells, etc.) would not be able to get past the nearest fibrous barrier. Expansion of the pathological process would be arrested there and then. A carcinoma, for example, is not capable of penetrating collagen fibre barriers purely by the pressure exerted as it grows.

In actual fact, a malignant degenerated cell deploys its own physiological enzymatic process of collagen digestion.

The more collagen-digesting enzymes a form of cancer develops, the more malignant it is. The highest concentration of collagen-digesting enzymes is found where growth is most expansive.

Enzymatic collagen digestion by the cancer cell is necessary to allow:

- expansive growth at the point of origin,
- cancer cells to invade the blood vessels,
- cancer cells to break out of the blood vessels, e. g. liver cancer cells breaking out of the lung capillaries resulting in the appearance of pulmonary metastases.

In all these expansive processes collagen fibres must be severed enzymatically — otherwise these processes simply won't take place. Expansive and infiltrative growth and metastatic spread all depend on collagen digestion.

This overstrains and finally exhausts the body's own inhibitory mechanisms.

TREATMENT TO BLOCK PATHOLOGICAL COLLAGEN CATABOLISM

Not only do we know the outcome of collagen digestion and the endogenous inhibitors which exist but detailed studies have been conduced on a second group of exogenic enzyme blockers which can be supplied as food supplements.

Lysine: It has emerged that the most important blocker of collagen-digesting enzymes is the naturally-occurring amino acid lysine. Lysine occupies the same status amongst the amino acids as vitamin C does amongst the vitamins. Lysine is capable of blocking the enzymatic disintegration of collagen by natural means and thus inhibiting the expansion of arteriosclerotic, inflammatory, allergic and cancerous processes which all make use of this endogenous mechanism of connective tissue disintegration. In addition, lysine is itself one of the most important elements of collagen.

Effective lysine doses start at 6 g per day and are often around 10 g or more per day.

A lysine overdose is just as unlikely as a vitamin C overdose. A human body weighing 70 kg contains around 600 g lysine bound as connective tissue building material.

Proline: The amino acid proline is another important element of collagen. Proline can certainly be manufactured in the body but only in limited quantities. Prolonged illness or aggressive disease almost always uses up available proline production capacity resulting in deficiency since the large quantity of collagen-digesting enzymes present consume an excessive amount of collagen. In such cases therefore proline should also be administered as a food supplement.

There are also combined lysine proline preparations.

Vitamin C: Since, as mentioned earlier, regulation of collagen synthesis and also cross-linking of collagen fibres into robust bundles of fibres is dependent on vitamin C, an adequate dosage of vitamin C is also necessary to produce sufficient new collagen.

A daily dose of between 5 and 200 g is effective. Higher doses should obviously be taken by infusion (e. g. in the form of Pascoe's vitamin C injectopas as this preparation does not contain additives).

Basic food supplement: In addition, an adequate dosage of a preparation containing a good balance of a large number of vital substances is highly recommended since we are dealing with a complex metabolic process here and at least 45 vital substances are absolutely essential for man's well-being.

In order for treatment to be successful, these preparations must be

- taken in high enough doses and
- administered for long enough.

COMBINATION WITH BIORESONANCE THERAPY

In order initially to emphasise the fundamental and absolutely vital mechanism by which enzymes which digest connective tissue are inhibited naturally, I have hitherto deliberately refrained from illustrating the connection with bioresonance therapy.

The following connection is obviously crucial to the success of any therapy: not only must all the necessary building and energy-giving materials be made available but dysfunctional operations must be reregulated.

What success can be achieved by administering all the necessary energy-giving substances if dysfunctional metabolism is not regulated? How successful will regulating dysfunctional metabolism be if the body lacks vital building and energy-giving materials?

Firstly BRT promotes

- the resorption of orthomolecular substances through the body's membrane barriers, namely
  - — intestinal mucosa,
  - — capillary endothelium and
  - — the membrane of the target cells and
- the optimal biochemical use of these substances,

secondly

- vastly improved therapeutic results are achieved with
  - — infectious diseases, e. g. flu, herpes simplex, pneumonia, cystitis
  - — chronic inflammations, e. g. ulcerative colitis, gastric ulcers, polyarthritis
  - — arteriosclerosis
  - — allergic disorders, e. g. hay fever, neurodermatitis, urticaria and
  - — neoplasms

by *combining* BRT with high doses of lysine and vitamin C — i. e. administering vital building and energy-giving materials whilst re-regulating vital metabolic functions.

I hope that applying this vital information to your work will help bring outstanding results — and I thank you for listening.