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The Clinical Picture of Hyperproteinemia and Hyperacidity

Introduction

Every biological therapy and every isopathic therapy (Sanum therapy) is exclusively oriented to the organism's regulatory system. It influences the organism's adaptability and its internal milieu – and thus the reactions or regulatory processes in the organism. Thus, the biological therapist views each symptom as the expression of a specific regulatory effort on the part of the organism and uses it as a guide to determine which metabolic processes are active, which are disturbed or in need of assistance. Therefore, he never treats the symptom itself, but supports the system's goals instead. For example, inflammation and its accompanying pain is not an ailment per se; it is, instead, the expression of the organism's efforts to digest or phagocytose toxins or defective proteins by means of inflammation. The therapist lends support to the goals of the inflammation by stimulating leukocytic systems and assists circulatory conditions or strengthens the lymphatic system in its diversionary capacity. This way, painful turgor can be reduced and the goals of the inflammation supported. But if – as in the present example – inflammatory processes are suppressed by anti-inflammatories, then the body cannot attain its goal, which is processing toxins, and tissue becomes burdened with toxins, proteins or immune complexes. It will in the future be more susceptible to recurring tissue disturbances.

Therefore, the biological therapist attempts to improve the adaptability and responsiveness of the organism by working at the regulatory system level.

In their work, Pischinger, Sander and Wendt have written that the **integrity of the interstitial system** is the most important prerequisite for good tissue regulation and responsiveness, since all the fine material data (but also cellular material exchange) takes place in these minuscule interstitial spaces. The conductivity and transportability of the interstitial fluid depends on the:

- Protein content of the interstitium
- Acid-base balance (pH value)
- Mineral and trace element content
- Endobiontic infestation, particularly the endobiontic high valences, which is a consequence of the first three criteria

Hence, it is crucial that every biological therapy be preceded by a normalization (adjustment) of the interstitial milieu. In other words: it has been shown that every chronically ill person exhibits a dislocation of the inner milieu (the condition of the interstitium). This explains why biological therapy can never be symptom-oriented but must always orient itself to the interstitium.

THE SIGNIFICANCE OF
DARKFIELD MICROSCOPY
IN CLINICAL PRACTICE

- Milieu ?
- Excess protein ?
- Immune system activity
  –> Protits ?
  –> Leukocyte mobility ?
- Endobiont infestation ?
- Cell resistance ? / Cellular respiration ?

- Primary Starting Point for therapy:
  –> Diversion ?
  –> Deproteinization ?
  –> Endobiont treatment ?
  –> Immune system stimulation

This means that Sanum therapy cannot be applied with respect to indications lists only, but must absolutely be administered on an individual basis. Enderlein describes this in his writings and points out that all isopathic therapy deals primarily with the milieu and that any development upward or downward of the endobiontic valences can only be achieved by a change in the milieu.

Any isopathic or immunobiological therapy must be accompanied by: treatment of the interstitial protein content with medications and dietetic measures; regulation of the acid-base balance; and – increasingly important these days – adjusting the trace element level. The fact that homeopathic and isopathic agents work better when administered along with trace elements had been noted even before Enderlein by Hahnemann in his later works, as well as by Rudolf Steiner. Our experience has very much confirmed this, as we have seen that isopathic agents combined with orthomolecular medicine or homeopathic trace elements (Sanum) work considerably better.

The issue of protein loading and the interstitial pH value will be dealt with thoroughly in the following section.

The evaluation of tissue pH value (represented in part by urine pH) and the evaluation of the degree of excess protein is done rather quickly by measuring urine pH and using **darkfield microscopy**. Darkfield microscopy is a very quick investigative method, well suited to clinical practice, which yields information concerning the blood's buffer capacity, protein content and endobiontic infestation of the interstitial fluid and the blood cells. In addition, diversionary disturbances can be detected based on the symplasts and crystals present, as well as blockages of the leukocytes in cases of trace element deficiency, toxic burden or degenerative ten-dencies.

The experienced darkfield diagnostician can also recognize the endobiontic stress of the blood and the consequent therapeutic urgency (see table: Significance of Darkfield Microscopy).

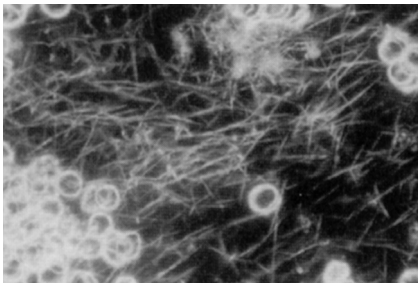


Figure A

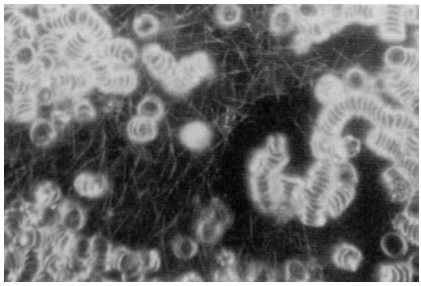


Figure B

Figure A: "Hyperacidity" in the Darkfield: rapid filament formation, thick, bright Endobiont-burdened cell walls, high degenerative tendency.

Blood left standing has a tendency to form burr cells. High-valence Macrosymprotits.

Figure B: Excess protein in the Darkfield. Rouleau formation with thick protein edging all around, viscous movements; in thin smears "lemon-shaped" and "pear-shaped" erythrocyte formations.

Preparation left standing has a tendency to form long Chondrite snakes and Ascits. Symplast formation and protein crystals. The Symplasts are a sign that primarily diversion therapies and dietary measures must be instituted. Sickness of overproteinization are chronic diseases, generally develop slowly and massively interfere with cellular and eliminatory metabolism.

Hyperproteinemia of the organism, especially of the interstices, leads to decreased mitochondrial activity – i.e. cellular respiration – and thus to increased degenerative tendency of the cells and tissues. It must therefore always be dealt with on the cellular level, which means stimulating respiratory enzymes and treating the interstitial space.

Physiological protein decomposition mechanisms

Cellular incorporation and restructuring of protein in enzymes, etc.: 40 g (1.3 oz.)/day. Any excess supply must be excreted, broken down or stored: physiological breakdown of proteins takes place by way of purine synthesis, as protein is decomposed to amino acids. Purines are excreted as uric acid. This breakdown mechanism is highly acidic.

But excretion of excess protein also puts a burden on the eliminatory metabolism. Normally, in the steady state, about 40 g (1.3 oz.) of proteins are excreted daily as waste products, free radicals and toxins. The eliminatory mechanism is thus at times working at full capacity. If additional proteins (our daily average of 50-100 g (1.6-3.2 oz.) must be excreted, then the eliminatory mechanisms will be forced to work at overcapacity, leading to purine elimination pathologies: the body is then only partially equipped to deal with the excess protein elimination and therefore takes some metabolic shortcuts.

Increased uric acid production: uric acid is not very soluble. A great deal of fluid needs to be drunk, or else uric acid crystals will form in the tissues. These can also be detected (using Darkfield microscopy) in the blood as minuscule, sharp-edged, very geometric crystals. These uric acid crystals are seen as foreign bodies, they have a mechanical scrubbing effect and can trigger the clinical picture of acute gout.

The therapy for elevated uric acid production consists of drinking more fluids and stimulating kidney activity with Solidago, Berberis, diuretic teas and a strict low-protein diet. Administering xanthinoxidase hammers (e.g. Allopurinal/Zyloric) is not recommended, since this overburdens other pathological purine excretory pathways without getting rid of the basic problem. Amino acid deposits are dealt with by the latent hyperacidity: the negatively charged amino acids bind with minerals, leading to a lack of available minerals and to calcium complex depositions in the tissues.

Typically, the long-term hyperproteinated patient exhibits, on the one hand, mineral deficiency in bone and cartilage and, on the other, calcification in the soft tissues. The skin of such patients is thickened, large-pored, increasingly light sensitive and – especially on the seborrheal parts of the face, cheeks and chest – reddened. These patients tend to be “allergic to the sun”.

The Significance of Proteins and Hyperproteinemia

The adult body needs about 40 grams (1.3 oz.) of pure protein daily to maintain metabolic equilibrium (harmonious balance of protein anabolism and catabolism); this amounts to 0.5-0.7 gram per kilogram (0.008-0.011 ounces/pound) of body weight. Daily consumption is about

EXCESS PROTEIN
Protein Metabolism Statistics from Europe

Consumption:	maximum	70 grams/day	(2.3 oz.)
Intake:	actual	120-150 grams/day	(4-5 oz.)
Intake:	ideal	40-70 grams/day (1.3-2.3 oz.)	

ELIMINATORY PATHWAYS

Metabolism:	breakdown amino acids → purine → uric acid glyconeogenesis
Elimination:	kidneys: ±0! liver: 10-40 grams/day (0.3-1.3 oz.) toxicity skin menstrual periods!
Deposits:	• Blood BP↑-0_2↑ • Tissue • Interstitium (Pischinger) • Connective tissue rigidity

60 grams (2 oz.) daily, keeping in mind that part of the catabolized cell protein can be recycled in the form of amino acids and a small portion converted to glucose (see below, gluconeogenesis) or used in hormone conversion.

Animal proteins are better absorbed in the small intestine, since they stimulate higher levels of hormone secretion and hydrochloric acid production. They are therefore highly praised by the meat industry. However, this ignores the fact that the only good aspect is its absorption; it is inferior when it comes to being incorporated or modified in body cells. Animal proteins – especially pork – are taken up and stored in the interstitium as higher molecular forms, peptides or low-molecular-weight proteins.

Plant proteins are decomposed into smaller components (amino acids) in the intestinal tract and then absorbed into the body. These amino acids, especially the essential amino acids, are easier for the cells to incorporate. It has thus been able to be demonstrated that plant proteins can be used to a much greater degree for cell construction, especially muscle cells.

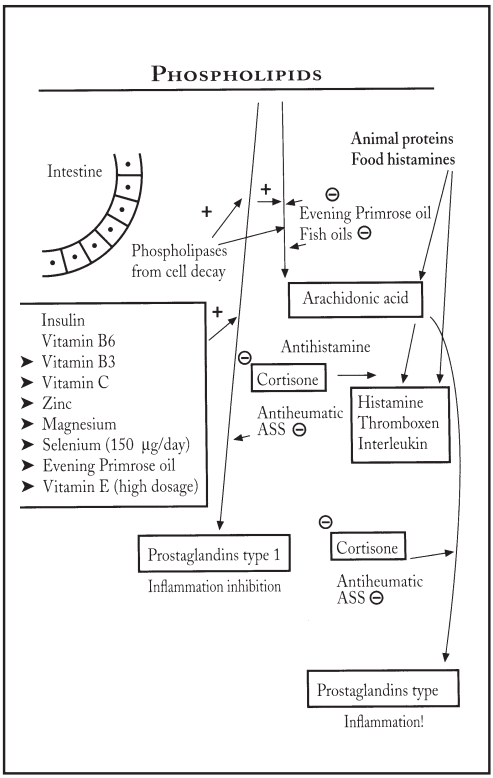
Large-scale sports medicine studies have established that a strict vegetarian diet and the regular training regimen led to markedly superior endurance compared to an animal protein diet. In particular, it turned out that a vegetarian diet was able to improve cellular respiration (i.e. a mitochondrial function).

The mean per capita daily protein intake in Germany and Switzerland is about 140 grams (4.6 oz.)/day. Since the optimum amount that can be processed is 40-60 grams (1.3-2 oz.) of protein daily, the excess protein amounts to 50-100 grams (1.6-3.2 oz.) daily per person! This surplus protein cannot be processed in the cells and must either be decomposed, oxidized or stored in the body (see the work of Wendt). Amino acids and small protein molecules carry a negative charge and tend to combine with positively charged minerals. This results in chemically inert, nearly unreactive protein-mineral complexes with an extremely high tendency to deposit in the interstitium and tissues (see below: degenerative tendency). These protein accumulations lead to a diminution of tissue responsiveness, interstitial "clogging" and an alteration of the normal state of the interstitial fluid. The interstitium, which is an information carrier and the medium of all material exchange, becomes less able to carry out its transport function, which leads in turn to flooding of the tissues and cells with toxins and the deposition of metabolites in the interstitium.

A simple comparison can help one understand these burdensome processes: a bricklayer is building a house and can process a ton of bricks per day. If he is kept adequately supplied, he can work at maximum capacity. But if he gets 2 tons of bricks delivered every day, he must spend a certain portion of his working hours stacking and storing the surplus bricks. His daily output will thus be reduced. If this oversupply condition lasts very long, then the storage area will grow to be so large that it will further limit his ability to perform his duties. In the end, the

bricklayer will be entirely occupied with stacking and storing the excess building materials, which finally collapse around him and totally prevent him from doing his work. Both the bricklayer (the analogue of the body's metabolism) and the building (the organs) suffer or are destroyed.

Gluconeogenesis: In case of emergency, human metabolism can turn to an energy-producing mechanism called gluconeogenesis. During hungry times, glucose can be extracted from proteins, as they get broken down and re-formed into glucose. This anaerobic form of energy production is accompanied by lactate formation, which is acidic and thus favors high-valence forms of the *Mucor racemosus* cycle. *Mucor racemosus* develops upward in a lactate-rich environment (Enderlein – Bacterial Cyclogeny). In patients with excess protein, this leads to overburdening with glucose and hence to hyperinsulinism and – paradoxically – also to increased hunger sensation. For this reason, we recommend, for patients with excess protein, on the one hand an animal-protein-free diet and on the other abstention from sugar consumption entirely. By means of gluconeogenesis, up to 40 grams (1.3 oz.) of protein daily can be broken down – although, as pointed out above, only by imposing a severe burden on the pancreas and liver due to new glycogen formation.



Prostaglandin synthesis: (see diagram) Prostaglandins are albuminous substances that are synthesized in the body as by products of cellular catabolism and as a breakdown product of arachidonic acid. The body

receives arachidonic acid only as a nutritional component of animal-based foods; it is not found in plant-based foods.

As can be seen in the diagram, the body's prostaglandin synthesis can be shifted in favour of type I prostaglandins (which inhibit inflammation) by administering antioxidants, vitamins, evening primrose oil and selenium. Arachidonic acid from animal dietary components, however, is always metabolized to type II prostaglandins, which promote inflammations. At the same time, the formation of histamines, inflammation parameters and thromboxane is stimulated, which explains the elevated tendency to allergies and thromboses of those with animal-protein diets.

Most anti-inflammatories, as well as cortisone, have an inhibitory effect on the formation of type I & II prostaglandins and lead to arachidonic acid congestion, which in its turn leads to increased interleukin and thromboxane synthesis and to an increased tendency to inflammation after discontinuing cortisone or anti-inflammatory medication. This metabolic mechanism also explains the elevated leukocyte count (and the greater tendency to thromboses) during longer-term steroid therapy. Therefore, an animal-protein-free diet is very important in cases of hyperproteinemia, as is treatment with anti-oxidants, particularly vitamins E, C and evening primrose oil (see Lancet 1991, "Vegetarian Diet for Rheumatoid Arthritis"). Additional metabolic pathways for protein elimination: Metabolism of proteins takes place mainly in the liver. The metabolic capacity is about 40 grams (1.3 oz.) per day in healthy adults – from which it is clear that the liver is pretty much fully occupied in maintaining the metabolic balance if it is overseeing the process of the physiological conversion of 40 grams (1.3 oz.) of protein daily.

If, in addition, excess proteins flushed out of the interstices have to be processed, then, over the long term, the liver becomes overburdened, leading to toxin reflux. Most toxins are proteins, often structures of high molecular weight. The body then attempts to return them to storage or to excrete them via the skin. Toxins can also function as free radicals, increasing the body's oxidative tendency, and they can also be carcinogens. The attempt to excrete toxins via the skin leads to the skin changes mentioned above, with a tendency to skin inflammations and the

deposition of free radicals in the skin. The consequences are pigment disorders, susceptibility to skin cancer and skin eczemas.

Another very important pathway for protein excretion is menstruation. The monthly elimination of 100-300 ml (3-10 oz.) of mostly coagulated blood represents a significant diversion of toxins and proteins. For women, this is a very important detoxification process. It also explains why women, during their menstruation years, exhibit fewer degenerative and civilization-induced diseases than men and why, after menopause, they begin catching up to the men in this respect. From our biological-holistic point of view, therefore, these monthly periods represent a very effective detoxification procedure, and we are strongly against the liberal diagnosis of hysterectomy before menopause. From a holistic point of view, the quite common myomas among middle-aged women are also merely an expression of hyperproteinemia and protein deposits between the muscle cells, and can be successfully treated, locally and systemically, with diversion therapy and Mucor therapy.

Additional Hyperproteinemia Diseases

Non-metabolized proteins can affect the organism via two pathophysiological mechanisms:

1. Increased dissolution in the interstitial spaces and circulatory systems: as described above, the permeability of soluble substances in the interstices is inversely proportional to the protein content. Water's ability to act as an information carrier is dependent on its purity. Thus, the transport of substances in the blood – but especially in the interstices – is lowered by a high protein content, which compromises cellular respiration. The consequence is an elevated degenerative tendency (premature cell aging and degeneration). Protein-free fasting thus reduces the degenerative tendency and promotes the detoxification of the organism – which is why fasting has been recommended as far back as the Old Testament and in ancient healing systems.

2. In the blood, hyperproteinemia lowers the ability to take up oxygen. Erythrocytes usually carry a positive surface charge and repel each other due to this electrostatic like charge, freeing up their entire functional

surface. If there are amino acids and low-molecular-weight proteins dissolved in the blood, which always have a negative valence, then these unite with the erythrocytes, binding them into protein-covered chains (rouleau formation), which only possess a limited capacity to take up oxygen. This rouleau formation in turn favours degenerative tendencies and can be detected quickly and easily in the Darkfield microscope.

Darkfield Microscopy therefore allows a very quick milieu diagnosis, recognition as to which therapeutic approaches are the most urgent, e.g. the necessity of deproteinization.

The consequences of rouleau and conglomerate formation of erythrocytes are thromboses, lowered oxygen intake, microembolisms and circulatory disorders. Tissue cells are inadequately supplied with oxygen and become anoxic, making anaerobic energy production necessary. This (glycolysis) creates lactate and promotes the growth of higher *Mucor racemosus* valences. This explains the statement frequently encountered in the lay literature, that excess protein and/or animal protein causes the endobiosis. But it also means that patients with the consequent symptoms of cellular respiration, such as coronary heart disease, circulatory disorders, hypertonia, etc. usually have a Mucor endobiosis, and that its vicious cycle can be broken with Mucokehl and respiratory-chain enzymes (Sanuvis).

Hypertonia is explicable in the same manner, and can usually be normalized with long-term deproteinization, alkaline therapy and treatment with Sanuvis (lactic acid) and Mucokehl *(Mucor racemosus)*. Hypertonic patients very frequently exhibit rouleau formation in a Darkfield examination. In the therapy test, a very satisfactory breakdown of the rouleau formations can be noted after administration of Mucokehl. The blood's reduced oxygen-carrying capacity is compensated by attempting to improve circulation by raising the blood pressure. Hypertonia thus represents, in our view, an attempt to compensate a reduced oxygen uptake capacity of the blood in vivo.

3. If hyperproteinemia persists for longer periods, the body attempts to bind the pathological negative valences with positively charged minerals, resulting in the formation of nearly insoluble mineral-protein complexes (calcification). The sclerotic build-ups and deposits in vessels and tissues

lead to a reduction in organ function, additional reduction of material supply to tissues and to the well-known late complications of vascular rigidity (arteriosclerosis). Additional complications will be treated in the section "Consequences of Latent Hyperacidity".

Treating Hyperproteinemia

Hyperproteinemia therapy must always proceed in parallel with hyperacidity therapy, and must also treat the consequences of reduced cellular respiration and Endobiontic infestation, otherwise the vicious cycle cannot be interrupted. Treating hyperproteinemia is a long-term therapy, usually lasting for years and requiring a change in life-style, especially dietary habits. A thoroughly administered hyperproteinemia therapy is at the same time the best preventive measure against degenerative ailments and malignant diseases.

Fasting is quite often a good beginning to treating excess protein. However, one needs to keep in mind that, first of all, the excretory mechanisms are often already overburdened and that a waste product attack is possible. This can quickly and easily be checked using Darkfield Microscopy:

- Are there rouleau formations?
- Are there symplasts (indicate over-burdened protein processes)?
- Are there crystals (indicate long-term hyperproteinemia)?

Werthmann and Rau's Hypoallergenic Diet

Forbidden:	Cow's milk and all dairy products: Yoghurt, cottage cheese, ice cream, chocolate, cheese and cheese dishes. Nuts and nut dishes, Chicken, eggs and egg dishes, cakes, etc. Pork and ham, sausages. Citrus fruits (all fruits in the evening). All histamine-rich meats, rabbit, venison, and anchovies
Permitted:	All vegetables, potatoes, chestnuts, fruit, rice, soya dishes, grain dishes; veal, chicken and fish (only once a week)

In addition, it is necessary to keep in mind that fasting must never become starvation, because metabolic processes slow down when the organism is starving, which, for patients suffering from excess protein, is precisely what one would like at all costs to avoid. Therefore, one must supply the body with certain substances, which without presenting a burden, help to ensure enzymatic activity and metabolic functions. We therefore usually combine fasting therapy with enzyme therapy and neural therapy of the excretory organs as well as the thyroid gland. Later on, the fasting phase needs to transition into an animal-protein-free diet, or one very low in animal protein.

The diet should initially as free from animal protein as possible, including dairy products. This is not the place to go into the many and frequent combinations of hyperproteinemia and food allergies, but we do recommend – because of the commonness of dairy allergies – a hypoallergenic diet at first (as described by Werthmann and Rau), which is both very alkaline and rich in trace elements.

A hypoallergenic diet enables (for those many food allergy sufferers) a build-up of the mucosa of the small intestine and thereby improved digestion of dietary protein. Alkaline foods are recommended: almost all vegetables, fruits (eaten in the morning), potatoes, chestnuts, corn (See "How can I Eat a Properly Acid-Base Balanced Diet?" R. Bircher-Ray, Humata Verlag).

Alkaline therapy – two starting points:

A) Providing base-equivalents

B) Replacing and providing positively-charged trace elements, minerals and electrolytes

As regards A) above: in the majority of cases, alkaline therapy can be administered orally; by dint of long-term (a year or more) provision of base equivalents, it effects a neutralization of excess acidic deposits in the tissues. The alkaline orientation promotes the organism's constructive powers, as can be seen in the physiological alkalinity of small children. Any shift in the acidic direction encourages sclerotic and degenerative tendencies in the organism.

The alkaline supply is in the form of Alkala N. This must be administered during the day, at a time when no digestive activity is going on or imminent. It can thus be taken very early in the morning, but physiologically best around 10 AM or 4 PM, when the body has its normal alkaline episodes (absorption of the bicarbonate secreted by the pancreas). Alkala dosage: 2½ measuring spoons dissolved in 20-30 cc (7-10 oz.) of water.

In cases of strong degenerative tendency, much filament formation in the Darkfield or pronounced symptoms of hyperacidity, we administer the alkaline therapy parenterally; the dosage normally amounts to 500 ml (17 oz.) of the Paracelsus Alkaline Solution 1-2 times weekly, into which we also mix the diversion agents and catalysts mentioned below.

As an alternative to Alkala, we have – much like the alkaline mixtures of the F.X. Mayr physicians – created an alkaline solution which is at the same time a mineral therapy and which, because of the orotic acid (magnesium orotate), promotes cellular respiration. But it is of utmost importance that alkaline therapy be carried out in concert with a change in dietary habits and on a long-term basis. Initial flatulence when taking Alkala is an indication of excess hydrochloric acid in the stomach, which is being neutralized by Alkala through the formation of CO_2. This problem generally only lasts a few days, and this is why Alkala should be taken on an empty stomach. Sometimes the patient might have diarrhoea at the beginning; this indicates an overly acid milieu in the small intestine, which likewise normalizes out after a few days (and, incidentally, strongly confirms the necessity of Alkala therapy).

4. Diversion Therapy

All excretory organs should be activated by improving circulation (exercise, heat applications, reflex applications such as cupping massages, neural therapy, etc.). Liver activity is stimulated by means of bile-activating and liver-cell-activating therapeutic agents: Liv 52 (Ayurmedica), Hepar comp. (Heel), Taraxacum, Chelidonium, wormwood tea, etc. The kidneys are stimulated with Solidago, Betula, drinking lots of fluids.

5. Stimulating Cellular Respiration

Aerobic energy production in the mitochondria is stimulated by highly dilute dextrorotary lactic acid (Sanuvis) or citric acid (Citrokehl). For Mucor types, Sanuvis is usually more effective; for Aspergillus types, who are susceptible to tubercular maladies, Citrokehl is usually more suitable. Here, too, a longer-term treatment is important and reinforces the isopathic therapy considerably. We have also had good results with the "catalysts of the citric acid cycle", with quinones and with coenzymes, particularly coenzyme Q10 (found in ubiquinone), coenzyme comp. (Heel) and similar preparations.

Orthomolecular Therapy/ Trace Element Substitution

Supplying positively-charged valences in the form of trace elements is extremely important. Chronic hyperacidity leads, as described above, to a trace element deficiency and binding of the trace elements. The binding sites of the trace elements are then no longer occupied and pathological, toxic elements such as mercury, cadmium and lead take the place of selenium, zinc and magnesium. This relative and absolute trace element deficiency explains the very high incidence of heavy-metal toxicity. Therefore, the trace elements selenium, zinc and magnesium must be substituted over the long term. For the initial evaluation, we use hair mineral analyses, which have proven themselves better than serum analyses. Administering the trace elements is done materially and informatively, i.e. with orthomolecular dosages and homeopathic preparations. This way, the body is supplied, on the one hand, with the building materials it needs and, on the other, the homeopathics probably improve, informatively, its uptake into the cells.

Our recommended daily dosage is: selenium 150 micrograms, zinc 15 mg, manganese 5 mg. Manganese is an especially important trace element and catalyzes various enzymatic processes which are important in protein metabolism and energy production. For similar reasons, we also substitute chromium with a dosage of 100-200 micrograms per day. Chromium is especially essential to the pancreas and hence for the synthesis of proteases, so important in processing excess protein.

Isopathic Therapy using Sanum Preparations

The diseases of modern life on the one hand and of the tubercular maladies on the other are the primary areas of application of isopathic agents. Depending on place and localization, as well as the patient's constitution, hyperproteinemia promotes the upward development of the higher endobiontic valences. The Endobiont infestation in turn increases cell-wall rigidity and with it the degenerative trend. Therefore, Darkfield

HYPERACIDITY

Intracellular pH 7.28-7.45

Causes of Acidity

Endogenous	• Intestinal fermentation → lactic acid
	• Weak stomach function
Exogenous	• Hypoalkalinity/minerals
	• Excess protein
	Amino Acids
	• Glycolysis
	• Lipocatabolism → ketones
	• Stress

THE SYMPTOMS OF HYPERACIDITY

Organs which express hyperacidity

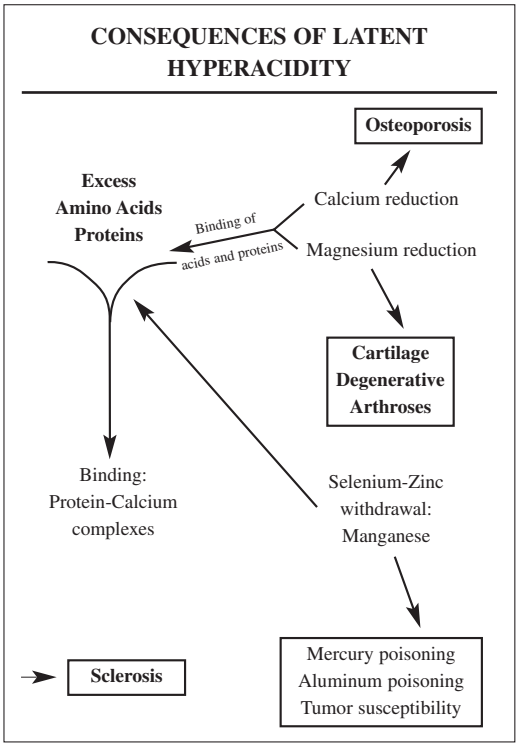
Kidney/Bladder	cystitis/prostate genital fungi
Stomach	hyperacidity
Skin	sweating allergies, "toxic" reaction eczemas
Intestines	acid stools, colitis
Bronchia	pressure hyperactive bronchia asthma
Joints	myalgia arthritis

examinations mostly turn up erythrocytes with a strong intracellular Endobiont infestation (sporoid Symprotits and brightly-lit wall thickenings). These changes point to a very high degenerative tendency and are practically always seen in carcinoma cases. Long-term therapy with Mucokehl *(Mucor racemosus)*, or possibly Mucokehl alternating with Nigersan *(Aspergillus niger)*, is thus necessary. For circulatory diseases of civilization, we recommend at least a one-year treatment period of 2-3 tablets of Mucokehl daily, taken mornings and evenings, and 1-2 tablets of Nigersan every evening. In cases involving severe congestive problems, we recommend administering Sanuvis for the same period, 30-50 drops thrice daily. Diet and concomitant therapy with Alkala during the entire term of therapy are a must. One should inform the patient that this treatment generally takes several weeks before it improves the patient's subjective condition, and that complaints such as angina pectoris, hypertonia, dizziness and suchlike usually abate quite considerably within a few months. For patients with severe hyper-proteinemia, chronic inflammation or extensive rou-leau formation, I recommend an extra enzyme therapy in the initial phase (Wobenzym or Phlogenzym), starting at a high dosage level and decreasing gradually. Patients often find this treatment to be very pleasant.

The Clinical Picture of Hyperacidity

The overall human metabolism is slightly acidic, due to the endo-genous production of acids (see diagram). The intracellular pH value is weakly basic in the range 7.28-7.45. In order to maintain this weak basic value, acid must continually be eliminated in the urine, which is why the mean urine pH value is markedly lower. Urine pH varies, with two daily basic peak values. This occurs because, some time after eating, excess bicarbonate pro-duced by the pancreas is absorbed in the small intestine. We support this physiological mechanism by stimulating the pancreas (chromium doses, Fortakehl *(Penicillium roquefortii)*, pancreatric preparations, Leptandra, etc.) and by administering Alkala N or some other alkaline agent during digestion-free times, i.e. around 10 AM and 4 PM.

The origin of the acids is shown in the diagram. Of importance are the connections with **intestinal fermentation**, which occurs as a result of



excessive sugar supply – but also as a result of eating fruit in the evening – leads to lactate formation, which is strongly acidic. The lactate then promotes Mucor growth and glycolysis and hence degenerative tendencies in the organism. Eating fruit in the evening thus promotes acidity, since the pancreas produces fewer saccharases at night, so that the sugars released by the fruit are not absorbed, but instead glycolyzed and fermented by the intestinal flora. In the case of exogenous acid attacks, the two main causes are excessive amino-acid supply (proteins, see above) and reduced mineral supply.

Mechanisms for acid elimination: in order to maintain a steady acid-base equilibrium, the body needs to eliminate the acids produced by metabolic processes. Normally, this occurs via the kidneys, as acid urine is excreted at night and neutral urine during the day. If acid production or supply increases, the urine must be made correspondingly more acidic and the physiological alkaline urine periods drop out. The constantly acidic urine then can cause mucous membrane irritation, chronic cystitis and genital infection, as well as genital fungal infections and, in men, subliminal chronic prostate irritation. Every one of these ailments responds very well to thoroughly-administered alkaline therapy. In particular, frequently recurring cystitis in older female patients can be cured within a year without recourse to antibiotics.

If the kidneys are overburdened in their eliminatory function – which

will show up as a constant highly acidic urine pH – then other eliminatory organs will be called on to help eliminate acids, which is then seen as a pH shift in perspiration, stool and bronchial secretion.

The **stomach** (a primary producer of acidity) reacts with hyperacidity, i.e. it secretes hydrochloric acid even at non-digestive times. This increased acid secretion leads to gastritis, then later on to ventricular or duodenal ulcers. However, elevated acid production is always an expression of the body's attempt to eliminate acid equivalents, and should therefore never be suppressed with hydrogen blockers, since then the equivalents which need to be eliminated remain in the body and lead to tissue acidosis and overtaxing of the blood's buffer mechanism.

Stomach hyperacidity can be eliminated in practically every case by long-term treatment with Alkala N and administration of minerals. The pancreas' bicarbonate production needs to be promoted (see above), for which we recommend the patient also take small doses of table salt (sodium chloride is needed in the synthesis of bicarbonate). Additionally, a strict animal-protein free diet must be maintained, since gastric acid and pepsin secretion is over stimulated by animal proteins.

The **skin** reacts to hyperacidity by secreting acidic perspiration. This, along with elevated perspiratory amino-acid elimination, leads to skin irritation, changes in skin pH and toxic skin reactions. Patients perspire more copiously and for no reason. Night sweats in particular are a classic sign of chronic acidity problems. (We have often observed, in menopausal female patients, quite a significant reduction of menopausal flush perspiration after dietary modification, administering minerals and Alkala therapy.)

Eczemas, allergic skin reactions and hypersensitive skin, are the consequences. In our view, every eczema patient is thus in need of an inner, systemic alkaline therapy, and an intestinal cleansing treatment must also be administered at the same time.

Intestines

The intestinal tract, the largest mucous membranal organ, is also the largest excretory organ. The secretions of the small intestine's mucous membrane amount to approximately 20 litres (4 gallons) per day, of which the major portion is re-absorbed in the ileum and the colon. The

small intestinal mucus varies considerably in its acid content, ranging physiologically from pH 6.0-6.8 – from which it is clear that considerable acid excretion takes place in the small intestine. This needs to be neutralized by the chyme, which is why it is so important to ingest lots of minerals, as well as indigestible alkaline plant fibres. These neutralize intestinal acidity through the formation of phytates and other fibre complexes, which are then excreted in the stool.

If the intestine is not kept supplied with indigestible fibre (roughage), then acid is reabsorbed and the intestinal contents also become acidic, which can express itself as colitis and irritable colon. Colitis patients should therefore – most of the time gradually – switch over to an alkaline, fibre-rich, animal-protein-free diet. The very common food allergies (mostly milk proteins) must absolutely be taken into account as well, since all food allergies lead to atrophy of the small intestinal mucous membrane and thus to increased acid re-absorption.

Rhino-Bronchial System and the Lungs

The mucous membranes of the rhino-bronchial system can also be utilized for acid excretion. This then leads to increased bronchial secretion and viscous sinus mucus with a tendency to recurrent bronchitis or sinusitis. As indicated above, the viscosity of the mucus depends on the acid content. The consequences of these bronchial mucous changes include a **hyper-reactive bronchial tree and a tendency to asthma**. The patients often experience thoracic pressure, and we have also often noted mental and emotional symptoms as expressions of "hyperacidity". These manifest themselves as dejection, depression, obsessive recurrent thoughts and/or sleep disturbances. We therefore treat all patients with emotional symptoms by treating the inner milieu, regulation of the acid-base equilibrium and orthomolecular substitution.

Joints: joints have a serous skin and secrete inwards. When the endothelial-serous system is in acid-elimination mode, proteins, uric acid crystals and other acid equivalents are released into the joint, triggering inflammatory-reactions. A Darkfield examination of arthrocentesis fluid therefore shows mostly high-valence endobiontic structures and rapid development of coarse filaments as well as various crystalline structures – all of which express the acidity of the milieu. Correspondingly, inflam-

matory arthritis responds well to instillation with a sodium carbonate solution, Notakehl *(Penicillium notatum)* and Citrokehl (citric acid) for de-acidification. But the joints and connective tissue are also involved via the process of acid-induced decalcification and demineralization, which takes place in order to mobilize minerals and bind excess proteins. One therefore encounters, as a consequence of latent hyperacidity, de-calcification in the bones on the one hand and calcium deposits in the muscles, connective tissue, joint capsules and tissues on the other.

Further consequences of latent hyperacidity are described in the table above. Deprivation of cationic trace elements (selenium, zinc, manganese, calcium, magnesium) leads to osteoporosis, cartilage degeneration, trace element deficiency. The bonding sites which this process makes available can then be occupied by toxic trace elements and heavy metals, which is why mercury poisoning, aluminium poisoning and lead poisoning can have significantly stronger effects. This toxicity must therefore always be treated with deacidification. Thus, osteoporosis is not a calcium disorder, but rather a problem with excess protein, hyperacidity and bone-marrow metabolism, which can also be treated accordingly and which responds well to Sanum therapy and to improvement of bone-marrow metabolism: Latensin *(Bacillus cereus)*, Mucokehl *(Mucor racemosus)* and Nigersan *(Aspergillus niger)*/Citrokehl (citric acid), Alkala, Calcium fluoratum Injeel

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