CYTOPLASMATIC THERAPY

MANUAL

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Contents

The following abbreviations are used:

A	= Conjunctisan A eyedrops
B	= Conjunctisan B eyedrops
Dil. or D	= REVITORGAN Dilutions and REVITORGAN Dilutions "new"
F	= Neydin F ointment
M	= Neydin M ointment
GS or G	= Countersensitization
NB	= Neyskin B Cream
NT	= Neyskin T Cream
SK, S or H	= Serum cure with antibody fragments, hydrolysate
Trs. or T	= REVITORGAN Dry Substances
Z	= Neydent toothpaste

Foreword

This manual is a review of Cytoplasmatic Therapy today. The dynamic development of research is continually producing further evidence of the effectiveness of this kind of treatment, and so specialist puplications and conference reports must be used to supplement and extend this manual. Case material is available on request from the manufacturers of the preparations, vitOrgan Arzneimittelfabrik Dr. Theurer KG, 7304 Ruit bei Stuttgart, Postfach 1240. However, to achieve optimum therapeutic results, the theoretical principles and practical experience described in this manual must be noted and utilized.

Stuttgart, September 1964

This new edition extends the 1964 Manual. Although since then there have been no basic changes in the types of treatment described, fundamental international research has provided definite evidence of the value of this kind of treatment, and animal experiments, model tests and statistical evaluation of therapeutic results have verified the efficacy of the specific preparations. With the upsurge of knowledge in these fields, a manual can only touch on the scientific principles involved and so the reader is referred to specialized literature on immunology, molecular biology and experimental genetics.

Stuttgart, January 1973
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Principles of Cytoplasmatic Therapy

The ideal treatment is one which restores health, order and harmony in the interaction of organic functions. Cytoplasmatic Therapy with REVIT·ORGAN preparations comes close to this ideal. It is the therapeutic outcome of the most recent results from research in biochemistry, cytology, virology, immunology and experimental genetics. It is based on

an understanding of the metabolic processes within the cells of the body and of the organo-specificity of certain cell constituents, and on understanding how to influence the biosynthesis of endogenous substances.

All the structural units and constituents of cells are constantly being broken down and replaced by identical, newly synthesized constituents. These are produced by reduplication or by more complex mechanisms in the cells themselves, utilizing the basic structural units ingested as food. For instance, protein synthesis is controlled by deoxyribonucleic acids (DNA). These are the genetic material in the chromosomes of the cell nucleus and they contain in their molecular structure the template for producing proteins. Specific enzymes construct an analoguous ribonucleic acid (mRNA) on the DNA and this is then released from the cell nucleus as a "messenger" to carry the template for protein synthesis into the cytoplasm. Here, ribosomes arrange themselves on this mRNA like beads on a string. Specific enzymes and transfer-RNA then catalyse the deposition of more than 20 different, activated amino acids on to the ribosome and finally the formation of peptide bonds between adjacent amino acids. As soon as this is done, the protein produced is released from the ribosomal battery and can exert its effect in the cytoplasm. The potential combinations of amino acids are practically limitless and so, correspondingly, there are many different types of protein each with its own nucleic acid. Other macromolecules, e.g. polysaccharides, lipids, DNA and RNA, themselves serve as patterns for identical duplication, which is catalysed by certain enzymes. Virus infections and the formation of antibodies are evidence that these synthetic processes can be influenced by introducing nucleic acids and proteins. Here, the synthetic processes are modified by substances not found within

the cell. Information is also transmitted from cell to cell in the form of mRNA. It is taken up by pinocytosis as droplets and by phagocytosis of corpuscles. A protein moiety protects it from break down by ribonuclease.

The discovery of genetic defects, and enzymic and molecular defects (Pauling) and the treatment of diseases due to these defects.

Genopathies are defects in the genetic equipment of the cells and they cause the wrong information to be transmitted. Blocked structural genes result in the failure or incorrect synthesis of certain enzymes and other protein substances. Defects in regulator genes, i.e. in operator genes or repressor genes, stimulate or inhibit entire structural groups, and affect cell functions and the interaction between the organs.

Molecular diseases are caused by structural abnormalities of functionally important molecules and they are manifest by the loss or impairment of a specific function.

Experimental genetic research has shown that genopathy and molecular disease can be treated casually

a) by recombining the genetic equipment of the cells by gene transplantations (Butenandt); this permanently corrects the synthetic processes, and the correction will be inherited.

b) by substituting regulators and metabolites, the absence or functional failure of which is producing specific metabolic disorders. This type of treatment must be long-term or must be repeated constantly at specific intervals if the damage corrected in the parent cells reappears in daughter cells when the cells divide.

Functional compounds which are absent or defective can be supplied and replaced by similar functional materials from another, related organism. Most of these effects are not species-specific, but they are organospecific. These compounds include hormones, their precursors and transfer substances, e. g. cyclic adenosine monophosphate (cAMP), metabolic enzymes particularly adenylcyclase and other receptor compounds in the cell membranes, inhibitors and activators such as prostaglandins, chalones, interferons and their inductors, biogenic amines and other regulatory compounds and their complements. In spontaneous healing this type of genetic or functional aid to

regeneration presumably comes from body cells which are still healthy and functioning. These compounds do not have to be introduced from other organisms unless there are no more healthy cells in the body.

For these repairs to take place, the defective cells must be striving to regenerate. This can be aroused and regulated by biological stimuli - this is done organospecifically by a quantitative immunological effect on the formation of iso- or auto-antibodies (cytoplasmatic organic substances can be used as antigens here), or by drugs conjugated with cytotropic carriers (antibodies, antibody-fragments, cytotropic fractions of organ cells).

Even when there is too much genetic information due to an increased number of chromosomes (trisomia in mongolism, chromosome aberration in Klinefelter-Reifenstein-Albright syndrome), impaired regulation can be improved by giving regulators. It must also be remembered that biological regulators can themselves act as reduplication templates and that, unlike synthetic chemical molecules, they can be integrated into natural regulatory processes without disrupting them. For instance, the endogenous hormone system can be very finely regulated. In contrast to Cytoplasmatic Therapy, with exogenous administration of hormones there is always a risk of upsetting the endocrine equilibrum.

Results of research into the affinity of analoguous molecules and their spontaneous aggregate formation is based on stereospecificity in the formation of functional proteomers from monomer units by spontaneous polymerization as well as the spontaneous aggregation of similar types of cells and the tropism of certain molecular cell constituents to specific types of cell.

The smallest molecule capable of transmitting comprehensible information is the monomer. Smaller molecules obtained by chemical or enzymatic breakdown of macromolecules under exceeding conditions can only act as cell building blocks and do not contain biological information.

Results of research into the induction of organ growth and regeneration of damaged organ tissue with tissue homogenates from similar organs and into growth and metabolic impulses of heterologous tissue in tissue cultures.

Information molecules continue to perform their biological function even in complex mixtures with thousands of different types of molecules. Isolated

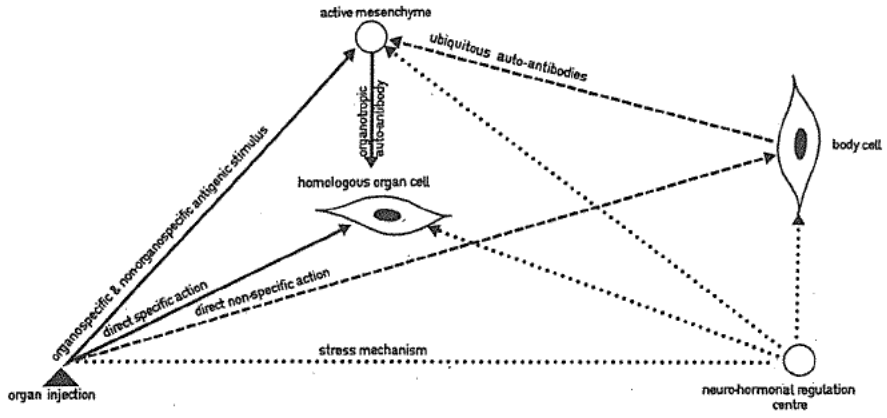
molecules are not usually so effective, because they need cofactors to fulfil their function. The different complement factors in immunology and those in blood clotting are cases in point here.

Experience in immune reactions following organ transplantation and in cancer, furthermore antigenic specifity and immunological effect of injected tissue homogenates and the significance of immunological autoimmune processes in maintaining chronic progressive diseases and in techniques of specific desensitization concerning hyperergic-allergic diseases.

Modern immunochemistry enables us to take a more objective look at antigen-antibody reactions. We can now identify humoral antibodies and also cell-linked cytotoxins (thymus dependent T-lymphocytes) which act against components of blood cells and fixed organ cells. There are also circulatory factors which correspond to imcomplete antibodies. Under physiological conditions, these imcomplete, functional circulatory factors appear to be produced to regulate metabolic processes, whilst in pathological processes complete organ auto-antibodies, which can be identified by conventional serological techniques, are produced and these, together with fairly high concentrations of complement elicit cytolytic effects. Therefore many chronic and recurrent organic diseases can be described as auto-allergic diseases. Up to a certain concentration, which varies from individual to individual, non-complement-fixing auto- and iso-antibodies stimulate metabolism via an antigen-antibody reaction, and have an anabolic effect. In larger doses they have a catabolic effect and eventually damage the cells by blocking too many functionally important cell constituents. For example, in Hashimoto's thyroiditis, first there is hypertrophy and hyperfunction, then atrophy of the thyroid. Iso-antibodies are a type of antibody produced by introducing heterologous, exogenous organic substances into the body. They act against exogenous antigens as well as against the corresponding, very similiar endogenous cell constituents. Because of the antigenic relationship between humans and closely related species of animals, heterologous organ substances from animals can be used for quantitative control of organo-immunological processes. The effect may be one of minimum therapeutic sensitization to elicit a regeneration-promoting, organospecific metabolic stimulus, or it may comprise therapeutic desensitization in pathological immunopathogenic auto-immune conditions; the latter takes the form of conventional specific desensitization using the allergen or antigen. Here the pathogenic antibodies are suppressed and the threshold at which the pathogenic reac-

tions are stimulated is increased.Repeated treatment with small quantities of the antigen or of the corresponding antibody given at fairly frequent intervals produces specific immunotolerance or enhancement.This means that long-term substitution and repeated treatments are possible. The more organ extracts are purified, the harder it is to induce tolerance. Clearly, purification destroys important factors. Reducing macromolecules to the size of monomers reduces their antigenicity and partly transforms them into haptenes. This means that pathogenic immunoglobulins can be blocked in pathological organ sensitization (A.DE WECK, Berne 1973, cp. also page 35). Smaller molecules elicit fewer reactions and are more readily absorbed.

The therapeutic consequence of all these results is treatment with macromolecular, non-denatured, predominantly organospecific, antigenic or haptenic cell constituents from foetuses and young animals, given in a dosage tailored to the individual patient. Since 1950, based on current hypotheses, we have been introducing this type of preparation for therapeutic use. However, in addition to organospecific cell constituents, regulators and non-organospecific constituents are also used, for example the energy-transmittingphosphate systems of adenosine, cytidine and guanosine, nucleotides, nucleosides, amino acids, phospholipids, vitamins, enzymes and trace elements, which are present in every type of cell in each individual. They exert their action throughout the body and produce general revitalization. These substances often elicit an immediate therapeutic effect. However, neural functions and the mechanism of stress are completely independent of the therapeutic agent. Their reactive effects on specific mechanisms, and on the reactivity of body cells, can also be exploited therapeutically. The following diagram shows the complex interactions between the mechanisms of action.



The triangle in bold type represents the specific organotropic action. It occurs indirectly via antibody formation in the cells of the active mesenchyme and directly via mechanisms of action involving molecule regeneration.

The triangle in lighter type illustrates the ubiquitous effect on the cells of the entire body.

Neural and stress mechanisms are represented by dotted lines. These are under the central nervous and endocrine control of the diencephalon-pituitary-adrenal system and they have reactive effects on the active mesenchyme and on the individual organ cells. Understandably enough, here again the intensity of the stimulus depends on the dosage. Effects can also be elicited at the same time by neural therapy, via acupuncture points and segmentally by special selection of the injection site. This is particularly recommended when using REVITORGAN Dilutions.

The whole of the biological mechanisms are therefore involved in Cytoplasmatic Therapy: that is to say it acts at the neural, humoral and cellular levels. The many different types of administration are understandable when one realises that it is not simply one type of preparation being used, but different, indiviualized combinations of the types of organ involved in the pathological process in each particular case.

Preparation and composition of REVITORGAN preparations

[redacted]

Directly after slaughter of perfectly healthy aminals, the required organs are separated, non-specific blood and tissue constituents are removed and within a few minutes, before autolysis begins, they are preserved at low temperature (about -200 ° C) by sudden deep-freezing in liquid nitrogen. When frozen hard they are finely ground and freeze-dried (lyophilization). The dried organ powders are then exposed, under vaccum, to the gases of volatile acids which are liquid at normal temperature and pressure, and which eva-

porate under vacuum at non-denaturating temperatures. Therefore, the complex macromolecular compounds do not undergo the usual decomposition which occurs in a liquid medium in the warm, but the acid gas is sublimated directly on the substrate at normal temperature. So the preparations are superficially macerated and chemically hydrolysed without the resulting fragments being able to react with each other. The process of hydrolysis can be stopped at any time without neutralization by increasing the vacuum and turning the sublimated acids back into gaseous form and removing them by suction. This process [1] is the mildest way of performing lytic decomposition. GRAUL, ROTHER and STEINER have found that this is the best way of conserving macromolecules and they do not undergo undesired decomposition. They have also shown that this method is suitable for radioactive labelling of macromolecules [2].

According to H. SCHMITT, the proportion of soluble protein, calculated in terms of dry weight, is 6.2% in fresh tissue and 3.1% in lyophilized dry tissue. However, the REVITORGAN preparations contain up to 24% soluble protein (WEINHOLD). Thus, insoluble cell constituents have become water-soluble. This degree of hydrolytic mildness can not be achieved by trituration and other hydrolytic techniques, which cause denaturing and break down macromolecules too much. Organospecific protein is extremely sensitive in this respect, and it is this protein which is necessary in its natural form for the immunological and regenerative action in Cytoplasmatic Therapy. The old preconception that protein could only produce sensitization and elicit adverse reactions, has been disproved. The action depends on the dose used and the intervals between injections. Fractions of organ protein have an organospecific antigenic action and they are organotropic. They protect nucleic acids from enzymic degradation.

Vacuum lysis at normal temperatures separates nucleic acids (DNA and RNA), lipids and polysaccharides from corpuscular complexes in a mild way, so that part of all these cell constituents can exert a direct action. Certain metabolites, regulators, hormones and enzymes are released from complexes. However, in the REVITOGAN Dried Substances, a few of the corpuscular cell elements remain structurally intact, for instance cell nuclei, mitochondria, microsomes and granules. Many authors believe that these cell constituents are in fact responsible for the therapeutic effect (KISS, SZILVEY, LAUDHAN). However, these complex constituents are removed from the REVITORGAN Dilutions by filtration, without any perceptible loss of action. Blood serum constituents are also removed from the Dried Substances. These are powerful, species-specific antigens and could elicit allergic reactions without being beneficial therapeutically. The lysis technique retains the organospecificity of the preparations, but reduces or eliminates the species-specificity (von MAYERSBACH, PODROUZEK, LICHT, LISKA). Every care is taken to maintain aseptic conditions when the organ parts are removed and processed and only organs from selected, healthy animals examined thoroughly by a veterinary surgeon before and after slaughter, are used. Production and sterility checks are also done under state supervision. REVITORGAN preparations contain no pyrogens. Each type of organ is processed separately. In view of the organ-correlative interrelationships in thepatological process, special REVITORGAN preparations have been produced from mixtures of different types of organ. To enhance the activity and further reduce the possibility of allergic reactions, the combined preparations contain balanced mixtures of the same types of organ from young and foetal, male and female individuals of different species of animal. This substantially reduce the volume of protein to be injected from one species of animal and sensibly allows for the degree of sex- and age-specificity. There are non-combined preparations and combined preparations of all the therapeutically important types of organ, and they are designed for specific clinical indications in which several types of organ are involved correlatively in the pathological process. These combined preparations can be used for the basic treatment and, if necessary, be supplement by noncombined preparations.

REVITORGAN Dried Substances along with the Dilutions and Lingual preparations and Conjunctisan eye drops provide a standardized therapeutic system for graduated dosage. The preparations are numbered to simplify prescribing Preparations with the same numbers are identical as regards qualitative composition and quantitative ratios; they only differ as regards concentration. Each pack contains instructions for use, and this also gives the key to the numbers; of course the organ types can also be prescribed by name.

Because of the special hydrolytic process (lysis technique) organ substances can be used in a biologically active, molecular form and even in high dilutions, and they can be administered via the external and internal body surfaces (percutaneous administration, administration via the mucosae, lingually, nasally, conjunctivally, as an aerosol for inhalation and as a toothpaste). In addition to their biological action, it has also been possible to use the organospecific macromolecules as organotropic carrier substances

1) DBP 1 090 821

2) "Med. Klinik" 17, 1964, P. 691 - 694

for transporting enzymes, hormones, nucleic acids, antibodies, vitamins and drugs of all sorts to the appropriate organ cells. In this way, local effects can be achieved with minimal dosage of the conjugated admixtures. 10^{-3} to 10^{-9} of the conventional unit dose is sufficient. These dilutions do not elicit the sort of adverse side-effects that may occur under conventional allopathic dosage. The active ingredients go straight to the site of action without the necessity for high blood levels. This has meant that new types of regulatory effects can be achieved, particularly in endocrine and organic diseases.

REVITORGAN preparations have been officially registered as drugs since spring 1954. There are the following types of preparations:

REVITORGAN Dried Substances from individual organs and combinations of organs. The preparations are sealed in 5 cm³ lightproof ampoules under nitrogen as finely pulverized dried organ substances in doses of 12 - 15 mg. These can be stored indefinitely under normal conditions. As stated in the enclosed directions for use, just before injection they are suspended in 2 ml of the solvent provided, and then administered s.c. or i.m.

Three different solvents may be used:

Solvent I is Ringer solution;

Solvent II contains a colloidal complex of aluminium hydroxide and silicic acid; this is also used in "THEURER Serum Activator" as an adjunct for modified autohaemotherapy, although in that case the concentration is higher and phenol is added. This prevents a rapid loss of soluble protein and provides a depot effect.

Solvent III contains the biodegradable surfactant sodium lauryl sulphate. This improves the distribution and permeability of cell substances, reduces their antigenic action and speeds up the regenerative effect.

Solvent II is normally used. Solvents I and III have to be specially prescribed.

Normal i.m. needles (gauge I) are used for injecting the suspended Dried Substances. However, the soluble cell constituents can also be injected through i.c. or s.c. needles if the corpuscular constituents are first allowed to settle on the syringe plunger.

REVITORGAN Dilutions from individual organs and combinations of organs without added drugs contain cytoplasmatic REVITORGAN Dried Substances from

individual organs or combinations of organs readily to inject, aqueous solutions and graduated dilutions. Each ampoule contains 2 ml. They are prepared by homogenizing the Dried Substances in Ringer Solution and diluting in stages of one thousand, shaking thoroughly each time.

Strength 0 corresponds to a dilution of 10^{-17} g Dried Substance per ml solvent.
(Only obtainable from thyroids, kidneys, diencephalon and spinal cord.)

Strength I corresponds to a dilution of 10^{-12} g Dried Substance per ml solvent.

Strength II corresponds to a dilution of 10^{-9} g Dried Substance per ml solvent.

Strength III corresponds to a dilution of 10^{-6} g Dried Substance per ml solvent.

Vacuum lysis had to be used for preparing the Revitogan Dilutions; this process involves producing in water-soluble form insoluble corpuscular cell constituents from cell nuclei, mitchondria, microsomes and membranes. Higher dilution reduces their antigenic activity and foreign-body-induced stimulus after injection. However, the structure-renewing action is retained. Sodium lauryl sulphate is added to further reduce the antigenic action and improve uptake into tissue cells. This also enables the lipids to be emulsified, and increases the stability of the organ colloids.

Revitorgan Dilutions "new" from organ combinations with addition of drugs and biological active ingredients in a high dilution (for indications, see page 69).
Revitorgan Dilutions with additives are used in the same way as the preparations without additives.

Revitorgan-Lingual with and without added drugs is administered lingually or nasally drop-by-drop from a dropper bottle, or it is rubbed into the skin, or an atomizer is used and it is inhaled as an aerosol. The preparations are suitable for continous substitution treatment and for follow-up treatment after courses of injections and for interval treatment between these. The effectiveness of this form of administration has been demonstrated in animal experiments and verified by clinical trials.

Conjunctisan-A and -B eye-drops also contains conjugated drugs and can be used in the same way as the Lingual preparations. For ophtalmic indications, both conjunctival and nasal administration are recommended. The drops are administered into the conjunctival sac with an eye dropper. Nasal administration of Conjunctisan-B drops is of proven value for the prophylaxis and treatment of catarrh, influenza and colds, and of sinus conditions, and as adjunct treatment in hyperergic- allergic diseases. The drops should moisten the nasopharyngeal cavity and be used several times a day prophylactically or to treat acute diseases.

Neydin-M ointments and Neydin-F ointments

are for transcutaneous application. Both ointments contain the entire cellular constituents of foetal skin, amnion, adrenals, liver and pancreas incorporated in amniotic fluid. Neydin-M ointment also contains testes and the maternal part of the placenta; Neydin-F ointment contains ovary and foetal part of the placenta. A special ointment base containing sea-water and amniotic fluid guarantees optimum tolerance and activity.

Neyskin skin creams

B = moisturising cream for basic regeneration of the skin, and
T = greasy cream for dry and sensitive skin and additive for B cream for nourishing treatment.

are used cosmetically. They are developed from the Neydin ointments with special additives (yeast extract obtained by the vacuum hydrolysis technique, extract of amniotic fluid, vitamins C, B and F, rhatany tincture and St. John's wort oil, and essential oils.)

Neydent toothpaste

contains the Revitorgan substances, particularly from foetal dental lamina and placenta, and extracts of amniotic fluid and yeasts, and vitamins, rhatany tincture, ethereal oils, sea-water, silicic acid and taste correctants.

Because of the added sodium lauryl sulphate, Neydin, Neyskin and Neydent are readily absorbed through the skin and mucosae and have a deep-seated effect. A number of patented processes [3] are used during manufacture. The antibodies in the amniotic fluid promote symbiosis with useful micro-organisms and

[3] DBP 1 090 812, 1 033 974, 1 065 570 and other DBP applications.

provide protection against pathogenic micro-organisms. The organ substances promote blood flow and cell regeneration, they increase resistance to oropharyngeal infections and they have a general revitalizing effect.

Standardization of the Revitorgan preparations

Revitorgan preparations are obtained from similar raw materials by unvarying manufacturing techniques. This ensures consistent quality.

Standardization based on the principles of action presented problems at first. At the Therapy Congress in Karlsruhe in 1955, THEURER proposed immunological standardization using organospecific test sera [4].
R. ABDERHALDEN demonstrated the organospecificity of the Revitorgan preparations using organospecific protective ferments. Modern immunochemistry has now provided even more objective approaches, e.g.with the JERNE technique, gel precipitation, immunoelectrophoresis and other methods. Also the Revitorgan preparations can now be standardized on the basis of their regenerative principle of action in animals and in cell-free synthetic systems, e.g. by determining the rate of synthesis of protein, RNA and DNA.

Fundamental tests of the activity of the preparations

There is a complete chain of accurate scientific evidence to verify the therapeutic activity of the Revitorgan preparations, although it is not within the scope of this manual to describe the results in detail. Further details can be obtained from the manufacturer.

Production technique and immunological specifity

GRAUL, ROTHER and STEINER, Department of Radiobiology and Isotope Research, University of Marburg, studied the protection afforded by the production technique. They found that the antigenic properties remain unaffected. Even electrophoresis did not reveal any qualitative changes in the substances. The technique is also suitable for radioactive labelling.

In 1953, at the instigation of THEURER, KUHN and KNOCHEL tested the organospecific antigenic properties of freeze-dried organ extracts. This

[4] "Die Therapiewoche" 5/6 Dec. 1955

organospecificity was confirmed specifically in respect of the Revitorgan preparations by VON MAYERSBACH, W. LICHT, LISKA and PODROUZEK. They verified that the organospecificity is completely unaffected by the production technique and that species specificity is reduced or lost. Anaphylactive reactions in animals were non-existent or greatly attenuated.

In experimentally-induced Masugi nephritis in rats, single injections, or injections repeated at fairly long intervals, of kidney preparations in fairly high concentrations (over 10^{-6} g) activated the pathological process, whereas injections repeated in shorter intervals with higher dilutions (below 10^{-9} g dry substance per ml) produced objective clinical and histological evidence of improvement. Analogous experiments in allergic encephalomyelitis in monkeys produced similar results (EYLAR, JACKSEN, ROTHENBERGER and BROSTOFF: Nature Vol. 236, 10.3.72 TG 74). HANZLICEK and PODROUZEK, Psychiatric Research Institute of the University of Prague, succeeded in demonstrating a quantitative effect on a pathological, organo-specific antibody fraction in humans, in relation to the dosage of cytoplasmatic preparations.

M. HASEK, Institute of Experimental Biology and Genetics of the Academy of Sciences, Prague, induced specific immunotolerance by repeated injections of aqueous dilutions of organ antigens (Conference Report 1965; Research Report 1959 to 1966, Czechoslovak. Academy of Sciences, Prague).

Components of action

[redacted] In preparations of cow decidua, LETNANSKY, Cancer Research Institute of the University of Vienna, found the ratio protein:DNA:RNA was 2700:250:36 µg/mlin an aqueous solution and 2400:165:58 µg/ml in Dry Substances from chorion. The composition of different types of organ is given in H.R. RAUEN's handbook on biochemistry: Springer-Verlag 1964. It should be borne in mind here that the soluble protein in Revitorgan Dry Substances is increased from 6,2 to more than 20% at the expense of insoluble protein, and the water content is minimized by freeze-drying.

PODROUZEK, Prague, analysed Dry Substances from pancreas dispersoid with simultaneous UV spectral analysis of fractions obtained with Sephadex 25. He found that the lytic procedure reduces the particle size of the protein molecules and so greatly increases solubility. Nucleotides are formed under the acidic effects of the gas treatment (cp. P.8.). Using infrared spectrography he was able to verify that no heterocyclic compounds are produced by the Vitorgan technique, that is to say no toxic breakdown products are formed. The particles in the suspensions bear a negative electrical charge. By hybridization of single-strand DNA, BOLTON and McCARTHY of the Carnegie Institute in Washington have found that 25% of human genetic material is very similar to that of cattle, but only 5% is similar to that of fish. This is evidence of the phylogenetic relationship between humans and the animal-organ substances used, and indicates their potential therapeutic value.

Effect on antibody synthesis

SORKIN of the Swiss Research Institute, Davos, and, independently, MAYR and BUSCHMANN of the Institute of Microbiology and Infectous Diseases in Animals, Munich, gave simultaneous and also separate injections of Revitorgan preparations and other antigens, and, in relation to dose, they increased antibody synthesis by up to 10 times compared with the controls or inhibited it by more than 50%, depending on the technique used. There was also a significant effect on the phagocytosis rate. SORKIN activated cellular immunity of newborn mice with preparations of thymus and, strangely enough, also of foetal myocardium. Purified thymus extracts produced in a different way did not have a similar action. This suggests that not only the thymus hormone, thymosine, but also other factors are involved in the activation of cellular immunity, the adenylcyclase system perhaps. All in all, the experiments demonstrate that the Revitorgan preparations elicit a general increase in resistance and have an antigen-specific immuno-suppressive action.

Organotropism of cell fractions

As early as 1955, using radioactive labelling, LETTRE, Heidelberg, demonstrated the tropic affinity of macromolecules from the brain cells of a different species, to the corresponding organ. In the preparations of guinea pig's liver obtained by the Vitorgan technique and pretreated with a mixture of radio-active-labelled amino acids, Jachertz of the Institute of Microbiology, University of Hannover, found some fractions with selective tropism to the liver and others selectively tropic to the kidney. This was an indication of the

mutual interaction of these organs. BYRNE also demonstrated organospecific tropism in organ homogenates (Medical Tribune No. 12 a/1969).

Effect on cell-free synthetic systems

JACHERTZ, JACHERTZ and MAY, Institute of Therapeutic Biochemistry and Institute of Microbiology, University of Frankfurt, restored the synthetic function of a cell-free synthetic system of Hela cells, which they had inactivated in various ways, by adding Revitorgan substances. It was found that an extract of quite specific organs may affect a specific cell-free system, and the activity of these preparations is the result of many factors.

LETNANSKY, Cancer Research Institute, University of Vienna, confirmed the effect on a cell-free synthetic system.

Effect on tissue explants

WRBA, Cancer Research Institute, University of Vienna, demonstrated the anabolic effect on cell metabolism elicited by adding corresponding, heterologous, macromolecular cell substances obtained by the Revitorgan technique, by the incorporation of radioactive-labelled phosphate. With the maternal part of cow placenta (decidua), WRBA and GEIPEL inhibited metabolism by up to 30% in Walker and Yoshida tumours and increased metabolism by 16% in healthy tissues from rat liver. There was an increase of up to 68% in normal tissues with isolated chorion. With fractions from Dry Substances of cow decidua, WRBA and LETNANSKY demonstrated an increase of oxygen consumption in Ehrlich ascites tumour cells and an inhibitory effect in normal tissue, such as rat liver. RÖSSE, Outpatients Veterinary Clinic of the University of Munich, increased the respiratory capacity of bull sperm by up to 29% using Revitorgan Dilutions from isolated cow chorion. In view of the increase of impared respiration and reduction in the rate of synthesis and proliferation, the decidua preparations are of interest in cancer treatment. WRBA and PAUKOVITS detected various substances in them including granulocytic chalones (W.S. BULLOUGH, London). These chalone-like substances probably do not exhibit organospecificity here.

Animal experiments

Fundamental work has been done at several institutes and clinics of the Faculty of Veterinary Medicine in Munich under the direction of ULLRICH, KRAFT, RÖSSE, MAYR and BUSCHMANN (cp. H. KRAFT: Erfahrungsheilkunde No. 6, 1972, P. 165 et seq.) The prophylactic and therapeutic action of the

cytoplasmatic preparation in liver damage induced experimentally with phosphorated oil was demonstrated by enzyme determinations and histological examination, and the effect was also demonstrated in cases of blood picture anomalies due to ionizing radiation and cytostatic agents (Endoxan). STAUDACHER, HAAG and TRIEBEL in collaboration with THEURER in the IInd. Med. Dept. of the City of Nuremberg under MEYTHALER, had already produced convincing evidence of the therapeutic effect on survival rate following whole-body irradiation, particularly with Dilutions of cow decidua. The survival rate within 30 days was increased from 30 to 100%, and after 40 days from 0 to 70%. Sodium lauryl sulphate given concurrently produced a 20% improvement in the results. However, without the organ component this did not have any effect in control tests. JACHERTZ confirmed the potentiating effect of the surfactant used in the Dilutions, in recombination tests with heat-treated phages on xanthine-deficient mutants of staphylococci. Here the recombination rate increased 50-100-fold and recombinations were found in cells previously unable to do this.

By modifying the treatment technique, RÖTHER and GRAUL of the Radiology Institute of the University of Marburg achieved even better survival rates in mice than those obtained in the Nuremberg experiments on rats. There was even a significant effect following oral administration.

In other experiments in Munich, preparations from foetal skin were used to prevent developing calciphylaxis and treatment with thyroid preparations reduced thyroid-related serum cholesterol levels. These results are also convincing. The stimulation of endocrine glands (ovary, adrenals, pituitary) was also demonstrated by the rise in steroid hormones and a sustained rise in 3 ß-ol-steroid dehydrogenase in the ovary. RÖSSE described the organo-specific effect of cytoplasmatic organ preparations as an aid to basic research in endocrinology.

Infertility in cows was cured in Munich, in the Süderbarup artificial insemination center (SCHRÖDER) and in Stuttgart-Birkach (WOERNLE) and this finding was corroborated by the spermatograms. Delayed subinvolution of the uterus and longer between-calf periods in cows were also treated successfully. The survival rates in dogs following pyometra surgery was substantially increased by treatment with Dilutions from kidney. Reproducible therapeutic responses were achieved in an endocrine disorder of chinchillas - "coat-biting"; the same also applied to diabetes insipidus in dogs and disturbed hair growth. The oral activity of Dilutions and Lingual preparations was demonstrated in intestinal diseases due to toxic factors in the feed of

chinchillas. VON MAYERSBACH demonstrated the absorption of organ substances through the mucous membranes histologically using tracer techniques. The molecules were found intracellularly in deep layers of mouse tongue, and so transfer from cell to cell by pinocytosis is suspected.

P. CHANDRA, Inst. of Therap. Biochemistry of the University of Frankfurt, demonstrated largely organospecific stimulation of protein synthesis by cytoplasmatic preparations from brain and pancreas, in the corresponding organs. This was again done using tracer methods. This indicates that the preparations have a genuine regenerative effect. BUSCHMANN, Inst. of Microbiology and Infectious Diseases of Animals, University of Munich, carried out a double-blind trial and found significant anabolic effects affording protection against disease, in feeding trials in pig fattening. Dry feed was sprayed with Dilutions, or Dry Substances were added to the dry feed in equivalent concentrations. Compared with the control groups, the weight gain was up to 10% better. WANDERKA, Botanical Research Inst., Viernheim, and HASLER, St. Gallen, demonstrated a favourable effect on plant growth. The mechanism of action is not yet understood, but here again stimulation of the adenylcyclase system and cAMP production, and an effect of laevorotatory amino acids are suspected.
A wide range of good therapeutic results have been obtained in different indications in veterinary medicine, both clinically and in general practice.

Results from human medicine

W. BIRKMAYER, Ludwig-Boltzmann-Institute of Neurochemistry, Vienna, observed a statistically significant increase with an improvement in general health in 60% of 100 chronic neurological cases with extremely severe deficiency symptoms who were given courses of injections with Revitorgan® preparations; similar results were not achieved with other geriatric preparations.

A. RETT, Ludwig-Boltzmann-Institute for Research into Paediatric Brain Damage in Vienna, carried out a double-blind trial on 82 adolescents over six months, to study the treatment of excessive masturbation. After three injections of one ampoule of the Dilutions from pineal gland weekly, 57 patients no longer masturbated. 46 of these 82 patients have now been receiving continuous long-term treatment with one ampoule a week for two years. In 12 patients, treatment was successful with eight injections.

In 11 adolescents there was an approx. 80% reduction in the frequency of masturbation. There was no response in 2 patients. With the injected

Dilutions from pineal gland, there was a characteristic effect compared with the placebo in that, depending on their particular mental powers and the power of verbalization, some patients remarked on a change. There was also noteworthy behavioural changes. In the group treated with the drug there was a reduction in aggressiveness and tendency to perseveration, they had a deeper and more balanced night's sleep and their appetite and ability to work improved. There were no unpleasant side-effects under treatment with Revitorgan.

WEINMANN, Children's Hospital of the Technical University in Munich, reports a series of favourable results in convulsive disorders in children (verified objectively by EEG) in postencephalitic psychotic syndrome, in enzymopathy (phenylpyruvic acid imbecility, metachromic leucodystrophy, galactosaemia syndrome, adreno-genital syndrome, an interesting case of van Bogaert's leucoencephalitis and muscular dystrophy)(Conference reports, 1964 and seq.). Encouraging results were also reported from other University Children's Hospitals, particularly in muscular dystrophy. Some of these results were substantiated by laboratory findings. WUNDERLICH, Munich and University of Mainz, provided case histories of mongoloid children from his extensive material, and these were evaluated statistically by PETER, Ulm. There were significant differences in the mental development of mongoloid children, who in addition to the conventional basic treatment, including Revitorgan-Lingual, were also given Dry Substances. The differences in the development quotient as compared with the group not treated with Dry Substances ranged from 35 to 55 (Conference report 1972).

HÄNDEL, previously of the Children's Hospital in Konstanz, also reported good results, particularly in convulsive disorders and mongolism, and in asthma and other allergic diseases (Conference reports 1960-1963).

H. LEHMANN, Gynaecological Dept. of Dilligen District Hospital, has obtained good therapeutic results in chronic adnexitis, pyelonephritis and infertility due to functional disorders with anovulatory cycles and from prophylactic treatment of rhesus-sensitized women with repeated incompatible pregnancies (Conference reports 1976 and following).

In the period up to 1968 HILLER, Krankenhaus der Barmherzigen Brüder, Munich, treated 332 patients with a convincingly high rate of success. There were various indications, the overwhelming majority being geriatric cases with cardiovascular disorders (Conference report 1968).

FIORIOLI, Med. Dept., University of Innsbruck, carried out a series of tests on 40 women who had received intensive radiotherapy for gynaecological tumours. He used Revitorgan Dilutions from decidua and was able to prevent the adverse effects of irradiation (Conference report 1960).

BOSLA and PFAFFINGER, Munic. Hospital, Pappenheimstraße, Munich, achieved good results in adjunctive tumour therapy and treatment of skeletal degeneration and hepatic cirrhosis (1965).

KAUTZSCH, Schwabinger Hospital, Munich, observed various effects in the treatment of liver diseases; these effects were as good as those achieved by conventional treatments. However, the treatments were not really standdardized, with different treatment intervals and dosages, and so conditions were not optimal. Treatments were tolerated without complications (1962).

In 1969, W. JANSEN, Altenkrankenhaus of the City of Nuremberg, reported on his results in 111 geriatric patients. He achieved a 71% success rate (Erfahrungsheilkunde No. 11/1969, P. 396 and Conference reports 1968-1972).

A. ZINNARI, F. SOLARO and V. ROMITI (Instituto Nazionale di Riposo e Cura per Anziani Centro Geriatrico di Genova) reported on the potential of cytoplasmatic therapy in geriatrics, in Rassagna Geriatrica, Ancona, No. 4, 4th October, 1966. 10 patients between 60 and 100 years old with cerebral sclerosis and neurological and psychiatric disorders responded well to Dil. 64N. Lipoprotein levels and pathological beta:alpha lipoprotein quotients returned to normal. The neurological picture improved in two patients with pseudobulbar syndrome with signs of pyramidal-extrapyramidal lesions. There was an improvement of neuropsychiatric clinical pictures. Three patients were completely rehabilitated. There was a marked improvement in one case of Reynaud's disease with dystrophic cutaneous manifestations.

C.H.van RHIJN, Enschede, has repeatedly produced reports of good results in psychiatry and in the management of drug addiction (Conference reports 1967-1972).

U. DERBOLOWSKY, Hamburg, uses cytoplasmatic therapy as the basic treatment in organ neurosis.

BREZNAY, State Hospital Hëviz/Hungary, compared two groups of 32 hospitalized patients receiving the same treatment (baths and physiotherapy) for degenerate locomotor disorders, myalgia, neuralgia, neuritis, rheumatism of the soft tissue, tendinopathy and bursitis. One of the two groups was given supplementary injections of Dilutions and Neydin ointments were rubbed in. There was a significant difference in the cure rate; there was a very definite improvment in 65,6% of cases receiving additional Revitorgan treatment as compared with 40,6%.

E. SCHUBERT, Eye Clinic and Outpatients Department of the techn. University of Munich, studied tolerance to Conjunctisan eye drops in 40 test subjects. There were no signs of ocular irritation whatsoever. The preparation was very well tolerated.

Between 1968 and 1972 J. FUCHS, Eye Clinic of Katharinen Hospital, Stuttgart, treated 524 patients with Conjunctisan eye drops. The indications were choroidal and retinal disorders, chronic glaucoma, previous neuroretinitis and corneal ulcers, herpes corneae and recurrent corneal erosions. 64 patients treated with Conjunctisan A and 16 patients treated with Conjunctisan B were selected at random in order to assess the drugs. There was an objective improvement in 44 cases under the A eye drops, with little effect in 16 patients and 4 were destined to deteriorate. 14 improved under the B eye drops and 2 remained unchanged. There were no deteriorations here. The treatment was described as effective and promising. Subconjunctival injections of Dilutions were well tolerated and here again the assessments were favourable.

H.J.REUTER, Private Urological Hospital, Stuttgart, surveyed about 3000 prostate cases treated with Revitorgan preparations in the period from 1968-1972, and about 200 patients with chron. recurrent nephrolithiasis. Tumour patients were given concurrent THEURER multifactorial therapy, including modified immunotherapy with antibody fragments. These results are also very convincing (Report of the Proceedings of the Deutsche Ges.f.Urologie, 21st Conference, 1965, Düsseldorf, Springer-Verlag; Der Landarzt No. 4/1965, P. 168, Erfahrungsheilkunde No. 4/1972, P. 104, Conference reports 1965 et seq.).

PAUL, Bremen, previously DRK Hospital, Bremerhaven, reported some surprising results from hospital and general practice (Der Landarzt No. 15/1972, P. 749-750 and conference reports) over a period of years.

J. Kern, Munic. Hospital Aichach/Obb., was able to measure the therapeutic effect objectively in comparative studies using cranial rheography before and after treatment with Neygeront in 25 patients (Conference report 1963). He also reports abnormal ECG findings were restored to normal.

RILLING, Stuttgart, carried out R-C-measurement, an electrophysical technique for measuring inductive and capacitative resistance. He found that Revitorgan Dilutions restored normal parameters only 10 minutes after injection, whereas placebos had no effect.

SCHRAMM, Vienna, used electro-acupuncture to measure the therapeutic results objectively.

SCHWAMM, Gengenbach, and SCHMAUSER, Mannheim, used infrared diagnosis.

WALB, Homberg, used CROHN's electro-neural somatogram, and WOLKEWITZ, Kronberg, used cutaneous projection diagnosis (cp. Conference reports).

These findings returned to normal, paralleling the improvement also found with the SCHELLER test and the carcinochrome reaction.

FRÖHLICH, Dental Clinic of the University of Tübingen, ZÄHRINGER, TRÖNDLE and KLÖPFER achieved surprising success in cases of irritation of the dental pulp due to thermic and chemical stimuli, by injecting Revitorgan Dilutions into the gingiva.

Over a period of three years ENGEL of the Dental School, Karlsruhe, treated about 400 patients for various dental indications, usually with convincing results. Disorders of the temporomandibular joint also respond well. It was possible to maintain the vitality of the pulp in many cases of root fractures (Conference report 1965).

GERING, Dental Clinic of the University of Tübingen, reported a significant shortening of the rewarming time after cooling by injecting the Dilutions, particularly in diseases of the paradontium; this effect bears comparison with other preparations. There was a definite improvement in the severity of inflammation after the course of injections (Conference report 1972).

Between 1963 and 1968, H.L.MICHALEK evaluated reports on 4357 cases treated with Revitorgan preparations and discribed in doctors' letters. 19% were cured, and 61% showed substantial improvement. 19,2% remained unchanged. The treatment was stopped in some of these patients and so the results could not be assessed.

PETER, Ulm, collated and evaluated the therapeutic results from a further 943 patients from the period 1968 to 1971. 521 cases were provided by 12 physicians, i.e. more than 12 case histories per physician. This corresponds to the size of a patient group from a fairly small hospital in clinical trials of drugs. There was a further 189 clinical reports from 14 physicians. The therapeutic result was assessed as very good in 416 cases = 41%, as good in 475 cases = 47%, and as not so good or the result could not be assessed because the treatment had not been optimized or because the patients dropped out in 130 cases = 12% (Conference report 1971 and 1972). No untoward side-effects were reported in any of the 943 patients, but accompanying symptoms which were not specifically being treated, did disappear.

Indications, contraindications and dosage

The mechanisms of action of cytoplasmatic therapy are crucial when deciding its indications, contraindications and method of treatment.

Molecular restitution and regeneration is just as much an active cellular function as growth. Revitorgan does not really produce regeneration in the anatomical sense by multiplication of cells, except in organs in which a higher level of new cell production is normal, for example in bone marrow, in lymphadenoidal and mesenchymal tissues, mucosae, skin and in glandular organs, particularly the male gonads in spermatogenesis. The function of healthy, functional cells and organs cannot be enhanced, but deficient cellular functions can be restimulated. This improves the functional reserves and economics of the organs. The diseased cells regain their normal irritability and capacity to repsond to stimuli, so that during the healing process any resistance to treatment by conventional methods disappears. Understandably enough, cells which are still capable of regeneration must be present for there to be any therapeutic effect. Cytoplasmatic therapy has no effect in healthy people, but it restores normal organ functions in the sick.

Because of the organospecificity of organ damage and of the Revitorgan preparations, the specific organ preparations corresponding to the affected organ cells must be used. Furthermore, several organs usually need treating concurrently in a disease. Where there is correlative damage to several organs, it is often enough to use combined preparations and to give additional treatment with non-combined preparations to the organ primarily affected. It is not usually possible to diagnose the deficiencies of functionally important cell constituents, and so the concept of specific therapy with isolated factors is illusory. There is often the possibility of combined disorders involving several factors simultaneously. It is therefore essential to have a broad spectrum af active ingredients with molecular regeneration properties. Revitorgan preparations only contain biological substances which can be metabolized by the body without any untoward effects and which can be used for synthesizing new endogenous material. Hence the body is not exposed to the effects of cell constituents which are not absolutely necessary and there are no disadvantages in the broad therapeutic spectrum.

Optimum results can only be achieved with cytoplasmatic therapy if the immunological components of action are taken into account. This means that dosage must be tailored to suit each patient's level of reactivity. The more hyperergic-allergic the patient's disposition (particularly if his reactivity is enhanced by external factors) the higher must be the dilution of the cytoplasmatic organ substances and the shorter must be the interval between injections. It is particularly important to bear this in mind in all stress situations.

The Dry Substances are used for hypergic or anergic patients who show little or no tendency to form antibodies. ESR and the white blood picture are usually normal here, or there is a slight depression of eosinophils and lymphocytes and of serum globulins. Therefore one is mainly dealing with degenerative diseases with no inflammatory reactions, growth and development disorders, endocrine disorders and enzyme anomalies of genetic origin and, in particular, geriatric ailments, adynamia and also genetic aberrations such as mongolism.

On the other hand, the Dry Substances are contraindicated in acute and chronic infections and inflammation of allergic origin, and in chronic diseases with immunopathogenic auto-immune reactions, e.g. nephritis, myocarditis,hepatitis, polyarthitis, multiple sclerosis and others, and in diseases where there is large-scale tissue destruction, recent apoplexy and infarction. However, these contraindications are in fact indications for Revitorgan Dilutions, since with these preparations it is possible to give an

immunologically subthreshold dosage without stressing the body, and there may be desensitization. However, because of the low doses of antigen in Revitorgan Dry Substances, even after improper use, there have never been any dangerous reactions, and there was no suppuration at the injection site. Hyperergic reactions can be controlled with one or two doses of prednison, calcium and/or antihistamines.

The doses of protein given in the Revitorgan Dry Substances are much lower than in prophylactic and therapeutic serum injections. Also, the Dry Substances are not injected i.v. and they do not have the same anaphylactogenic potency as serum. According to H. SCHMITT, 2 ml containing 3000 AU of a 1500 x serum for tetanus prophylaxis with a 10% protein content, contains 200 mg animal protein. This dose has to be injected several times for treatment. On the other hand, one 15 mg ampoule of Revitorgan Dry Substances, with a protein content of 20%, only contains 3 mg soluble protein. Consequently, 66 ampoules of Revitorgan Dry Substances would be needed to provide the amount of protein injected in a single serum treatment. This goes to show how much less stress is imposed on the body with cytoplasmatic therapy with Dry Substances compared with serum therapy. This comparison did not take into account the fact that organ antigens have very much weaker antigenic potency than serum antigens and that the human body tolerates embryonic and juvenile protein better than protein derived from adult animals.

If injections of the same types of organs were repeated too frequently, under certain circumstances Revitorgan Dry Substances would produce too high a level of organospecific sensitization and this would incur a risk of allergic-anaphylactic reactions. Therefore, normally, Dry Substances injections can only be repeated at fairly long intervals (several months), when the sensitization processes have ceased. Injections can be repeated at 6-8 week intervals in people who do not form antibodies readily. The rule-of-thumb is therefore: if there is no change 4-6 weeks after injection of Revitorgan Dry Substances, i.e. no improvement or deterioration of the clinical picture or of the patient's subjective condition then, provided that the right type of organ was injected, the patient does not form antibodies readily. A follow-up injection of Dry Substances can be given 6-8 weeks after the first series of treatment, or the preformed immunological processes can be activated by non-specific stimulation therapy, possibly with high-dosed autohaemotherapy. The follow-up injection is unnecessary if there is an improvement. A temporary deterioration at first is a sign of excessive antibody formation Here the antibody titre should be allowed to decline spontaneously for 3-4 weeks, when the delayed therapeutic action commences. This can be hastened

by desensitization with high-dilution countersensitization (q.v.).

It is known that, after reaching an optimum level, antibody production declines rapidly in the absence of fresh specific or non-specific antigenic stimulus. However, by administering antigenic stimulus in the correct dosage, i.e. by using Revitorgan Dilutions, initial deterioration can be avoided since, if the antibody level is pathologically elevated, it is suppressed from the outset by sensitization. Disease-induced organ sensitization can also be desensitized rapidly by further diluting the usual suspension of Dry Substances with normal saline solution 1:100 or 1:1000 and injecting 1-2 ml of these dilutions i.m. on 4 to 6 consecutive days (EYLAR, JACKSEN, ROTHENBERGER, BROSTOFF: Nature, Vol. 236, 10th March, 1972, P. 74 et seq: Suppression of the Immune Response: Reversal of the Disease State with Antigen in Allergic Encephalomyelitis). Here again, repeat courses of treatment must be preceded by preliminary desensitization with high antigen dilutions in the form of the Dilutions, or there must be a fairly long interval between treatments.

The organ doses in the Revitorgan Dilutions are only a fraction of the injected doses of Dry Substances. The quantities are comparable to those of allergens used for specific desensitization. The amount of protein in Strength III of the Dilutions is 0.2×10^{-6} g, in Strength II it is 0.2×10^{-9} g, in Strength I it is 0.2×10^{-12} g and in Strength 0 it is 0.2×10^{-17} g. These are actually homoeopathic dosages, although their activity has been confirmed by immunological, allergological and fundamental research. For instance, dilutions of more than 10^{-16} are effective with recombinations with bacteria.

The Revitorgan Dilutions and "new" Dilutions can be used in patients with a hyperergic disposition. Here there is usually eosinophilia, leucocytosis, lymphocytosis, elevated ESR and increased serum globulin levels. In cases of "exogenic" allergy to exogenous substances it is a good idea to carry out counter sensitization before or after organ treatment (cp. P. 32). This also suppresses disease-inducing exogenic sensitization processes. On the other hand, only endogenous sensitization to endogenous substances can be desensitized with Revitorgan Dilutions. However, Revitorgan Dilutions are suitable for long-term replacement of regulators; there, the dosage should not elicit any sensitization responses and it must remain subthreshold. When used correctly, therefore, there are no contraindications to the Revitorgan Dilutions. They are particularly suitable for treating virus diseases, for enhancing resistance and defence mechanisms and promoting

recovery after infectious diseases, for preventing and treating untoward side-effects of chemotherapeutic and cytostatic agents, for treating the adverse effects of hormone therapy and the "pill" and following treatment with ionizing rays and withdrawal treatment of addicts, and in general eutheterizing cell functions.

The dosage of Revitorgan Dilutions also depends on the body's reactivity. In hyperergic-allergic diseases including those with immunopathogenic auto-immune aspects, dosage is based on the principles of specific desensitization using the antigen in subthreshold, gradually increasing concentrations and doses. The greater the level of sensitization, the higher must be the initial dilution and the shorter the interval between injections. Experience from general practice has shown that it is expedient to start with very high dilutions of Strength 0, particularly in chronic diseases of the thyroid, kidneys and diencephalon. However, Strength I can also be further diluted as a mixed injection with NaCl or Ringer Solution and then the concentrations increased via a dilution of 1:100 (= 0.1 ml to 9.9 ml diluent), 1:10 (= 0.2 ml to 1.8 ml diluent). Higher dilutions can be prepared by the multi-container method under aseptic conditions. Intermediate dilutions between each strength can be prepared like this, with ten-fold increases of dilution. For example, 10^{-10} and 10^{-11} dilutions can be obtained from Strength II, and 10^{-7} and 10^{-8} dilutions from Strength III. Dilutions higher than 10^{-14}, which can be easily prepared in stages of one hundred from Strength I, are not usually necessary, except for thyroid, kidneys and diencephalon for which Strength 0 = 10^{-17} is available. Strength I is normally sufficient as the starting concentration. Dilution 10^{-17} is below the Loschmidt number (6.023×10^{23} molecules per mol) and still contains biologically active molecules. Where there is a very high antigenic potency, e.g. with old tuberculin, even dilutions of 10^{-18} can elicit reactions in patients with marked disease-induced sensitization [14]. Strength 0 is therefore immunologically active.

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14) M. WERNER in "Allergie" by K. HANSEN, Thieme-Verlag Stuttgart

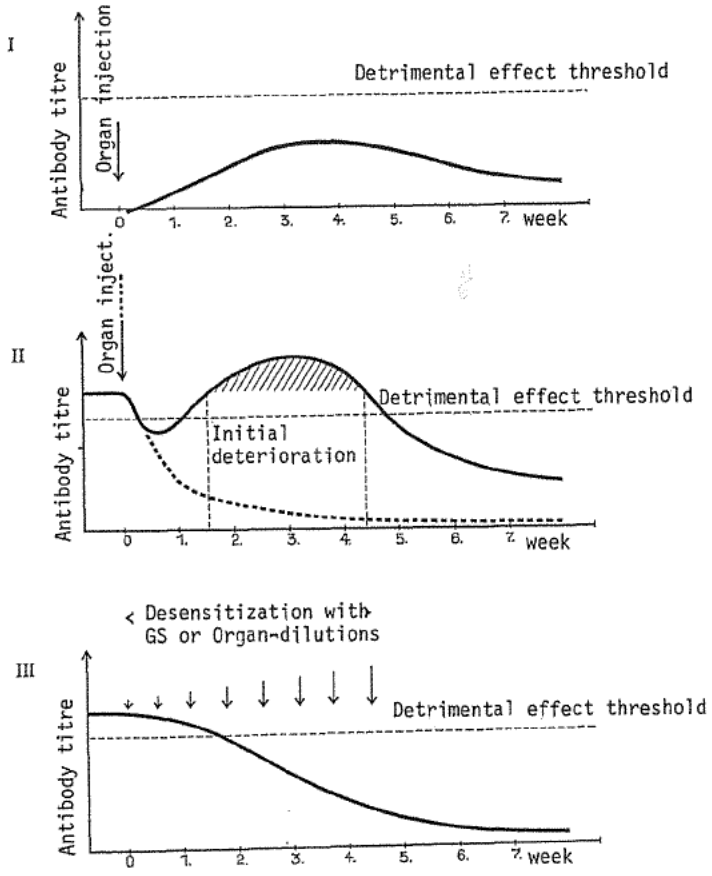
Explanation of the diagram on Page 29

Graph I shows the antibody titre where there is no autosensitization, i.e. in more degenerative diseases, following a single injection of Revitorgan Dry Substances. The antibody formation does not reach the threshold for a detrimental effect.

Graph II shows the antibody titre where there are disease-induced auto-sensitization processes in the presence of auto-antibodies, e.g. in chronic recurrent organ diseases with inflammatory components, following a single injection of Revitorgan Dry Substances. After a brief initial fall in the titre, with the possibility of an early effect due to blockade of the disease-induced auto-antibodies as a result of an antigen-antibody reaction with the organ substances administered the antibody titre rises again to a peak from which it finally declines fairly rapidly. The initial deterioration persists whilst the levels are far above the anabolic stimulus threshold. It is also possible to suppress pathogenic antibody formation by immunological blockade (brokenline). Larger amounts of the sensitizing agent have to be injected for this. However, this type of treatment incurs considerable risks and so it will not be discussed further.

Graph III shows the response where there is an existing, disease-induced antibody titre, following repeated desensitization treatment with Revitorgan Dilutions or counter sensitization by THEURER's method. Here the disease-induced antibody titre is suppressed from the outset, so that the onset of the therapeutic action is after only a few treatments.

The quantitative immunological processes can be represented diagrammatically as follows:



If there is a suspicion of fairly severe, disease-induced sensitization processes, to be safe tolerance can be tested before the first treatment by first injecting 0.1 ml of Strength I i.c. to form a wheal. If there is no reaction at the injection site within 20-30 minutes, the proposed therapeutic dose of Strength I can be injected without hesitation, even intravenously. This type of preliminary test is routine in serum therapy. It is particularly recommended when injecting organ Dry Substances, especially after prolonged prior treatment with higher strengths (Strength II or III) of the corresponding organ dilutions. On the principle of nil nocere, it is always a good idea to take this safety precaution even though the small quantities of antigen in Revitorgan preparations are unlikely to elicit adverse effects. Further treatment can be given without these preliminary tests, as long as they take place during "refractory period" or anti-anaphylactic phase. This lasts up to 5 days and with serum therapy it begins 5-6 hours after i.c. injection of 0.1 - 0.25 ml dilute serum, at least 6 such injections being necessary for complete desensitization. It is therefore advisable to inject Dry Organ Substances at the latest 3-5 days after the last dose of Organ Dilutions.

As long as they are well tolerated, the concentrations and doses of the Dilutions can be increased until there is a favourable therapeutic response. However, the concentrations should not then be increased further, in fact they should be reduced by 1-2 decimal places, if necessary by preparing intermediate dilutions by mixing in the syringe. Strengths II and III should therefore not be used routinely. Subjective symptoms, such as headache, fatigue, weakness and the like, may be signs of overdosage. As a precaution, signs of hyperergic-allergic reactions should also be watched as these could also be signs of too high a dosage, (e.g. itching, aggravation of allergic, disease-induced reactions and Arthus phenomenon at the injection site). Here the concentration should be reduced by at least 4-6 decimal places. If this dilution is well tolerated, the concentration can be increased again in subsequent treatments. However, the dose should never be increased further if there are signs of overdosage.Thus, treatment should be implemented on allergological principles, even though there are hardly ever any untoward side-effects with high dilutions [15].

15) HANSEN, "Allergie", Thieme-Verlag, Stuttgart, 1957.

Reducing the injection volume also improves tolerance, although not to the same extent as dilution. 2 ml of one kind of preparation is normally injected. However, several preparations can be mixed together so that injection volume may be as high as 6 ccm i.m. Intermediate dilutions do not usually have to be used even in sensitive patients if treatment is started with 0.1 or 0.5 ml of Strength I and these injection volumes are then doubled in subsequent treatments at hourly to daily intervals until the full injection volume is reached. Treatment with the other strengths should also be carried out in this way.

Initial deterioration is extremely rare and does not adversely affect the overall course of healing. In existing hyperergia, after changing the preparations treatment should always be restarted with high dilutions. For continuous treatment with the same type of preparations, after giving Strength III once or twice, it is a good idea to revert to Strength I and then to increase the concentration again. This has a desensitizing effect which then permits higher concentrations to be used for a short time. This alternating dosage prevents sensitization, which could occur with prolonged use of Strengths II and III in sensitive patients.

In hyperergic patients, particularly those with allergic diseases, the greater the degree of sensitization, the shorter should be the interval between injections. Injections can be given daily for 3 to 6 days at first, then three times and finally twice a week. As regards dosage and repetition of injections the same comments as those made in respect of Dry Substances, apply to Strength III. Here it is a good idea to choose intervals of not more than 3 to 5 days. However, Strength I can also be injected sporadically at longer intervals, and the same applies to Strength II with less sensitized patients. From the point of view of specific desensitization, treatment can be started afresh at any time with high dilutions, according to the principle of desensitization.

In acute diseases it is appropriate to supply relatively large amounts of regenerative organ substances to the damaged tissues from the outset, as long as auto-immunological processes do not prevent this. An optimum level of treatment should also be the subsequent aim.

In diseases without allergic-hyperergic or auto-sensitization components, higher concentrations of Dilutions can be given at once, e.g. in acute viral diseases, infarction and the like. There is no need for prior

desensitization here. In the course of the disease auto-sensitization only develops after 8-10 days due to the destruction of endogenous cells and tissue (KLEINSORGE and DORNBUSCH, Klin. Wochenschrift 19/1960, Page 970). So after this time the concentrations have to be reduced via Strength II to Strength I and below. After this, the concentrations can be increased again depending on individual requirements, using the specific desensitization technique.

The treshold level for a therapeutic effect seems to vary from person to person and to depend on the patient's reactivity. There is therefore a difference between treatment in hospital and ambulant treatment. Ambulant treatment is usually performed with higher dilutions, e.g. Strengths I-II, with the necessary intermediate dilutions obtained from them, whereas Strengths II and III can be given to bedridden patients in hospital. Higher concentrations can be used in vagotonia than in sympathicotonia. Understandably enough, mental and physical rest alters the stimulation threshold towards the vagotonic end and so more intensive treatment is necessary. It may be propitious to give higher dilutions in the morning and higher concentrations in the evening. Treatments should be given at the same time of day in order to compare the dose-related effect. However, the increase in dosage should always be tailored to the individual and it is preferable to give an extra injection rather than increase the quantity too rapidly.

Summary:
Dry Substances in hypergia and anergia or when there is an improvement in the clinical symptoms at the end of a course of injections with one or several injections at daily intervals, but not at irregular intervals, where necessary with repeated daily injections of dilutions of the suspension of Dry Substances 1:10 with normal saline solution, in each case giving 2 ml. Repeat courses of treatment with the same preparations after an interval of at least 6 months to a year, where necessary with preliminary tolerance testing (cp. P. 30).

Dilutions with and without drug additivesfor continuous substitution, organospecific desensitization in hyperergic-allergic conditions and in disease-induced immunopathogenic organ sensitization, and for increasing resistance to infections and in cancer. The more acute the course of the disease, the shorter the interval between injections; injections may be repeated daily or on 3 to 6 successive days, then three times a week

and finally twice a week with an increasing dosage; also reducing dosage in acute diseases.

Selection of preparations from individual organs or combination of organs based on the types of organ and tissue involved in the pathological process. Serial treatment with specific combinations of organs and supplementary non-combined preparations as mixed injection (disposable syringe). Switch the type of preparation every five injections, or alternating treatment with organ combinations and, where necessary, supplementary non-combined preparations in an increasing concentration and at increasing intervals, e.g. in hyperergic-allergic rheumatic diseases: mixed injection from a disposable syringe of Dil. 78 + 43 alternating with Dil. 65 "new" and mixture of Dil. 68 "new" + 51, daily for 6 days, then for 1-2 weeks every other day and finally every third day, in an increasing dosage as follows:

1st day Dil 78 + 43 Strength I; 2nd day Dil 65 "new" Strength I; 3rd day Dil 68 "new" + 51 Strength I; 4 th as 1st day; 5th day as 2nd day; 6th day as 3rd day; 9th day Dil 78 + 43 Strength II; 11th day Dil 65 "new" Strength I; 13th day Dil 68 "new" Strength I + 51 Strength II; 16th day Dil 78 + 43 Strength II; 19th day Dil 65 "new" Strength II; 21st day Dil 68 "new" + + 51 Strength II; 23rd day Dil 78 + 43 Strength III; 26 th day Dil 65 "new" Strength II; 29th day Dil 68 "new" Strength II + 51 Strength III.

Conditions for achieving optimum therapeutic results

Even with cytoplasmatic therapy it is of utmost importance to eradicate the causes of the disease. Just like a healthy organ which has been damaged, an organ restored to health, which may still be locus minoris resistentiae, can certainly succumb to disease again.

Every unintentional effect on the regenerative processes is detrimental as regards the therapeutic effect. From this point of view, foci of infection should be eradicated, since these act like a depot immunization and elicit or suppress anamnestic reactions. These could adversely affect the therapeutic results. However, they do not represent a contraindication for treatment with Revitorgan preparations. In patients with allergy to exogenous allergens and micro-organisms, it is important to avoid exposure to the allergen or desensitization should be implemented by countersensitization (q.v.), before stimulation therapy with cytoplasmatic therapy. This also suppresses

disease-induced autosensitization processes. Obviously, the desensitizing effect of the organ dilutions is not directed against sensitization processes elicited by exogenous substances, but only against genuine organ autosensitization. This is why it is often necessary to give additional countersensitization treatment which also suppresses sensitivity to exogenous substances and increases the threshold for allergic reactions.

Molecular restitution or regeneration is only possible if the local conditions are favourable. A crucial factor here is the organ blood supply and nutrition. Everything possible should be done to create favourable conditions. Producing a suitable milieu for regeneration often requires relieving or bridging therapy, change of diet, normalization of the electrolyte balance and administration of vitamins, trace elements and essential materials. The normal functioning body is capable of regulating the balance of vital substances on its own, whereas an ailing body cannot. This capability is regained as healing progresses, but before this happens the body needs assistance. This depends on the nature of the disease and takes the form of other types of therapy such as psychotherapy, neural therapy (technique used by the HUNEKE brothers and others), which create the preliminary conditions for regeneration from the energy point of view, although these measures alone will not achieve regeneration. Relieving treatment of the principally affected organ includes desensitization and, as far as possible, functional rest and relaxation, and preliminary organotherapeutic treatment of other types of organ with correlative involvement in the pathological process.

Since the actual therapeutic effect does not usually commence immediately after treatment with Revitorgan, bridging therapy is sometimes necessary. Administration of drugs required to maintain life should continue, e.g. cardiac glycosides in cardiac decompensation, ACTH, corticoids and thyroid hormones in pituitary cachexia, adrenocortical hormones in Addison's disease, thyroid hormones in myxoedema and insulin in diabetes mellitus. However, as the clinical symptoms improve, the dosage of these drugs should be adjusted as required. It is worth noting that the response to these drugs improves after treatment with Revitorgan preparations. However, dysthetic measures which suppress or harm certain physiological functions should always be avoided. These include barbiturates, brain-stem sedatives, opiates and potent toxins. Cytoplasmatic therapy is a valuable way of treating damage caused by prior administration of such drugs.

Countersensitization (GS)

This is a method of specific desensitization by a modification of autohaemotherapy (THEURER 1954). Unlike conventional, specific desensitization, which involves giving the sensitizing agent or allergen, the patient's disease-specific antibodies are modified by adding a colloidal complex compound of aluminium hydroxide and silicic acid to the corresponding whole antigen. The preparation used is called "Revitorgan serum activator". It also preserves the autohaemotherapeutic preparation thus treated, this being the patient's serum, patient's plasma or patient's haemolysate. Dilutions are prepared from the stock solution obtained in this way and according to the instructions; then, depending on the patient's degree of sensitivity, dilutions are prepared and injected repeatedly in increasing concentrations in the same way as for the conventional specific desensitization. This stimulates counterreactions of the enhancement type, which block excessive antibody formation. The method is suitable for treatment of "allergosis" due to exogenic allergens, e.g. hay fever, bronch. asthma, eczema and others, and for treating chronic organ diseases due to sensitization to endogenous substances (cell constituents, hormones, enzymes etc.) and to endogenous allergens (micro-organisms). According to WINDSTOSSER, dental foci generally require this kind of countersensitization treatment before and after extraction, in order to avoid complications.

Countersensitization is therefore a method of treatment in its own right, with a different mechanism of action from that of cytoplasmatic therapy. It will only suppress the effect of hyperergic-allergic reactions and allergic antibodies, not the tendency to form the wrong antibodies. Also, GS does not provide cell constituents for stopping pathogenic antibody formation. Prior or subsequent cytoplasmatic treatment is necessary for this. However, GS treatment does improve the chance of successful stimulation therapy and minimizes or avoids the risk of any hyperergic reactions developing under cytoplasmatic therapy with Dry Substances by suppressing existing autosensitization processes and increasing the threshold for allergic reactions. In the list of indications for Revitorgan therapy, there is a note whereever GS pretreatment would appear appropriate. GS has been confirmed by PODROUZEK, Prague, using electrochemical polarography. He demonstrated the modification of antibodies to the corresponding antigen in experiments with antibody sera against micro-organisms and against the placenta of pregnant women [16]. Animal experiments were used to study therapeutic effects of

16) cp. Conference report 1963

GS in Masugi nephritis produced with cytotoxic sera (MAYERSBACH). It has an anti-anaphylactic effect (KINDLER, KRAFT). In hyperergic-allergic diseases, it is appropriate to give pretreatment with organ dilutions, e.g. with Dil. 78, 65"new" and 29, in order to deblock the mechanisms of action for GS.

Notes on the treatment technique:

A single sample of blood and one ampoule of "Revitorgan serum activator" is sufficient for the entire countersensitization treatment. Dilutions are prepared from the stock solution in dilution stages of one hundred with normal saline, Ringer solution or sterile sea-water. Intermediate dilutions can be prepared from the preceding strength by mixing in the syringe, by diluting 1:10 (o.1 to 0.9 ml diluent). The course of treatment normally requires 6-10 or more consultation, daily at first, then three times a week and finally twice a week. In each case two to three wheals are produced by injections, possibly segmentally, with 0.05 to 0.1. ml i.c. The greater the patient's sensitivity, the higher are the starting dilutions, e.g. rising by decimal places from 10^{-12} until a therapeutically effective concentration is reached, perhaps to 10^{-3} and if necessary, to the undiluted stock solution. Details can be found in the special brochure and in published reports. Individualized dosage is very important with GS. In higher concentrations the injections can be used to activate immunological defence mechanisms, e.g. in acne vulg., chron. infectious diseases and cancer. In these cases, start with a dilution of 10^{-3} and increase up to the undiluted stock solution with intervals of 4-6 days between injections and, in all, 3-5 treatments. This procedure is also suitable for searching foci by provoking latent foci. As soon as these are recognised, desensitization should be carried out with high dilutions, if necessary with supplementary anti-infective treatment (antibiotic or chemotherapeutic agents). However, small granulomas may persist if the stock solution is given by i.c. injections, so it is better to give an i.m. or s.c. injection here. It can also be administered lingually and/or nasally as drops, again in increasing concentrations up to 2-3 times a day. In cases of pronounced hyperergic-allergic reactivity and immunopathogenic auto-immune conditions, particularly in potentially dangerous conditions, immunosuppression should be implemented with corticoids, ACTH, antilymphocytic serum (ALS) or cytostatic agents before GS. Prepare the preparations for GS and SK before symptomatic immunosuppression. Discontinue immunosuppression during treatment with Dil. or antibody fragments.

Before blood removal for GS or SK, the immune system can be provoked with antibody fragments by stimulation or fever therapy.

Serum cure with hydrolized serum from the patient

Based on experience with countersensitization, a further modification of autohaemotherapy, which is particularly suitable for treating chronic diseases of mesenchymal tissue, was developed. As early as 1957, THEURER suggested that in the formal genesis of chronic mesenchymal diseases there is an intracellular, autonomic vicious circle as a result of haptens activation, i.e. transformation of constituents of mesenchymal cells to the auto-antigen by binding with antimesenchymal auto-antibodies and, irrespective of the presence of a focus of infection, leading to permanent damage of the mesenchymal tissue [17]. These factors have since been identified as antiglobulins and antimesenchymal antibodies. GS attenuates the sensitizing processes (see Page 32); treatment with hydrolysate is aimed at blocking the vicious circle with the hydrolytically fragmented auto-antibodies which do, however, retain their ability to bind with the haptens of the diseased cells. This binding blocks the receptors on the haptens and so they are not transformed into antigens [18].

GS preparations are easily prepared by the attending physician himself. To prepare the hydrolysate, 8 ccm of blood must be sent to the haematology laboratory of VITORGAN in a citrated venule. The hydrolysate is then supplied in 5 ccm ampoules. Depending on the degree of the sensitivity, it is expedient to prepare further dilutions up to 1:10,000 and above from these ampoules and to increase the concentrations and dose gradually in line with the dosage scheme provided, and tailored to the individual patient.

Here the immunoglobulins are isolated from the patient's citrated blood and broken down chemically into their light and heavy chains. Re-aggregation is prevented by adding cysteine or by conjugation with appropriate drugs (cell fractions, hormones, vitamins, cytostatic agents etc.). The tropism of antibody fragments to the antigen is retained, and so these fragments "recognise" the antigen, block it and can act as a vehicle for

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17) THEURER: "Ärztl.Praxis" 42/1957, "Neue Wege für die Behandlung des primär und sekundär chron. Rheumatismus".

18) THEURER: Book of the 5th Europ. Allergy Congress: K.THEURER, "Modifikationen der Eigenblutbehandlung und die Behandlung mit verdünnten Organantigenen zur spezifischen Desensibilisierung".

drugs. In experiments with hydrolysed paratyphoid-B serum and the corresponding antigen, the effect of hydrolysis was demonstrated by agglutination tests. After neutralizing the antigen with the fragmented antibodies there was no agglutination when unchanged paratyphoid-B test serum was added. However, this did not occur after incubating the antigen with over-hydrolysed antibodies. This was proof of the trophic affinity of antibody fragments to the antigen and their blocking effect, in respect of preparations obtained by this production technique. These results were reproducible with typhoid-H antigens and the corresponding sera. For technical reasons, it has only recently been possible to demonstrate this with organ tissues and antibody sera against these tissues.

With the "collagen diseases" (chron. rheumatism, lupus erythematosus, scleroderma etc,), it has been found best to start treatment with dilutions and then to inject antibody fragments conjugated with corticoids. Then Dilutions can be given again and countersensitization treatment implemented. Treatment with antibody fragments and countersensitization should not be carried out at the same time, but they can be given in succession. In cancer, this method is only implemented with conjugated cytostatic agents or cytoplasmatic extracts of decidua or foetal myocardium because of the possibility of immunological enhancement due to the antibody fragments; here we are only employing the carrier function of the antibody fragments to the tumour cells. Injections must be given i.v. here, daily at first, then every second day; 10-12 treatments in all. When other non-toxic drugs are conjugated, particularly corticoids, injections can also be given i.m. Concurrent treatment with chem. immunosuppression is possible.

Method of treatment with cytoplasmatic therapy

After suspending Dry Substances in the solvent supplied, they are injected i.m. at a typical site. Details are given in the instructions enclosed with each pack. I.v. injection and addition to infusions are strictly contra-indicated with Dry Substances because of the particle size and tissue concentration.
The Dry Substances are suspended by repeatedly drawing off and forcing the solvent under pressure back into the ampoule containing the dry powder. A puncture needle of suitable size should be used for this; it can be changed for a normal i.m. needle gauge 1 or 2 before injection. The injection must be given as soon as the dry powder has been suspended. The turbid homogenate of the suspension also contains corpuscular constituents which, if

possible, should also be injected. However, it does not matter if the entire contents of the ampoule are not injected.

With the Dry Substances, because of the fairly large injection volumes, if possible each preparation should be injected separately. Glass syringes or disposable syringes, without metal parts if possible, should be used. If different preparations are to be injected at one consultation (up to six ampoules), the injection sites should be at least 3-4 cm apart. Mixtures of non-combined preparations can be injected, but no more than 4-5 ml per injection site. Distribution in the tissue would be impaired with larger volumes. Revitorgan Dry Substances can also be injected s.c. and some i.c., if possible in the particular organ zones, Head's zones or at acupuncture points. It is then advisable to dilute the dried organ powder from one ampoule with two ampoules of the solvent = 4 ccm. Approx. 0.05-0.5 ml of each organ homogenate can be divided up amongst different injection sites and thin needles can be used for injection. With this type of treatment, only the dissolved or finely suspended organ substrate is injected. This type of administration provides for local stimulant effects combined with organospecific actions. In contrast to neural or segmental therapy, where a non-specific substance is used at a specific site, here an organospecific substance is used at a specific site. This mode of administration has proved particularly valuable, especially with the Dilutions. The injections are virtually painless. The injection site must be thoroughly desinfected and aseptic precautions observed. Injections can be given to ambulant patients. One to two days bed-rest is recommended when using the Dry Substances, to facilitate absorption of the organ preparations. For this reason, too, physical exercise should be avoided.

Revitorgan Dilutions and Revitorgan Dilutions "new" are ready-for-use, aqueous solutions. It is a good idea to shake ampoules well before use. They can be administered in any way, i.m., s.c., i.c. and, with Strengths I and II, also intra-articularly and i.v., or added to infusions. Strength III is not suitable for intra-articular or i.v. injection. Several preparations can be mixed together in the syringe (disposable syringe or glass syringe). However, no more than 4-6 ml should be injected at one injection site. Larger injection volumes should be distributed over different injection sites. Smaller injection volumes can also be divided up; for instance, several injections can be given paravertebrally or via the proc. spinosi of the vertebral column, at hyperaesthetic or pain points via proc. mastoides or segmentally at each consultation and most of the solution given i.m. or s.c. at the usual sites for these routes af administration. In paradentosis

or where there are signs of pulpitic irritation, several injections of 0.5 - 1 ml can be given gingivally and the rest of the injection volume administered s.c. or i.m. Local injections can be given around poorly healing wounds, ulcers and fractures. 0.05 - 0.5 ml is sufficient for i.c. injection. In alopecia, several such injections can be administered into the skin of the head at each consultation. I.v. injection should be reserved for specific indications and it is best administered as an additive to sugar solutions, if possible at body temperature. Dilutions are also added to continuous drip infusions. They can be mixed with vitamins and other biological drugs. A skin test should be carried out before i.m. administration of Strengths II and III (cp. P 30).

Revitorgan Dilutions can also be administered lingually and atomized as an aerosol for inhalation. They can also be sniffed in through the nose. Dilutions are also very suitable for moistening wound compresses. This method has proved particularly valuable for treating radiation burns, ulcers and poorly healing wounds.

Revitorgan Lingual is best dropped on to the back or palm of the hand and taken on the tongue. The liquid should not come into contact with metal. It can also be sniffed through the nose and rubbed into the skin. Inhalation as an atomized aerosol is also recommended. For instance, in herpes labialis, Lingual No. 65 and Conjunctisan B can be mixed into Neyskin ointment M. This mode of administration has also proved valuable in varices and haemorrhoids. The dosage should be tailored to individual needs and reaction. A few drops, where necessary several times a day, are sufficient. For prolonged use, the intervals between administration can be increased to every other day. Different Lingual preparations can be used alternately or on alternate days, e.g. Lingual 35, 64 and 69.

Dilutions or Dilutions "new" can also be added to the Lingual preparations under aseptic conditions, e.g. in diseases associated with haemorrhage (Werlhof's disease, Schoenlein-Henoch etc.), Dil. 39 and 28 mixed with Lingual 65. Alternate administration of this and Conjunctisan eyedrops A or B is also propitious.

Conjunctisan A and B eyedrops are instilled into the conjunctival sac. Before it is first used, the screw-top should be changed for the enclosed dropper under aseptic conditions. Conjunctisan B is particularly recommended for prophylaxis and treatment in the initial stage of catarrhal and influenzal infections, disorders of the paranasal sinuses, and colds, chron. bronchitis,

asthma and all allergic diseases; it is administered nasally or lingually here. Conjunctisan A where the nasal mucosa is dry, ozaena etc. Ophtalmic indications should also be given additional nasal treatment. For long-term use the intervals between treatments should again be extended to one to two days. When only used conjunctivally, it is appropriate to repeat the administration after 5-10 min. because of washing out by the lacrimal fluid. Dil. can also be mixed with the Conjunctisan eyedrops.

Neydin ointments M and F are for external application. In ulcers, burns and wounds, they can be brought into direct contact with the wounds, with the dressing. It may be propitious to smear the edges of the wound with zinc paste. Admixing with Dilutions, Lingual preparations and Conjunctisan eyedrops is often advantageous.

Neyskin creams B and T and Neydent are applied as for normal cosmetic use. Here again, combination is possible. Neydent can be applied locally and washed off again with water after a contact time of several minutes, in anal eczema and to promote the circulation.

Advice for the patients

under treatment with Revitorgan preparations

I. General guidelines
for the first three weeks after beginning treatment:

a) Avoid everything which will impair the natural processes of self-healing stimulated by the treatment.

b) It is desirable to have a good sleep, maintain a regular way of life and to avoid excessive mental and physical exertion.

c) Avoid excessive exposure to sunlight.

d) No hot baths or over-zealous thermal treatments like saunas etc. Bath water should be at a body temperature - water at 37 ° to 38° C does not have a harmful effect.

e) Plenty of fresh air, walks, lying in the open air.

f) Regulate bowel activity by natural means and perhaps by changing diet.

II. Food

a) A high vitamin diet (fruit, vegetables, fruit juices, yoghurt, nuts, butter) and eating regularly are recommended; do not over-eat. Vitamins have a supportive effect, particularly the complex B which can be taken in the form of yeast (brewer's yeast).

b) Avoid eating too much animal fat, all coarse kinds of cabbage, food which causes flatulence and foods containing chemical preservatives.

c) The effect of the treatment is enhanced by restricting intake of cooking salt, coffee, alcoholic beverages, nicotine and other non-essential consumables.

III. Drugs forbidden

Potent chemical headache drugs, analgesics and hypnotics (barbiturates etc.) should certainly be avoided. Purely vegetable contrastimulants are permissible.

As the patient improves, he must get used to improving his efficiency by suitable training- He should not indulge in excessive physical exertion, even if he feels capable of it. The organ treatment recreates the conditions under which he can be trained. His efficiency can only be improved permanently by training.

Tolerance

Injections of Dilutions and also of Dry Substances are well tolerated when they are given in the correct dosage along the lines described here. Failure to observe aseptic precautions or too high a dosage may cause local signs of irritation. However, these are extremely rare and subside after, at most, two to three days, even if left untreated. Overdosage, i.g. using Dry Substances in disease-induced organ sensitization, can produce fever and possibly itching a few hours after the injection, particularly in very sensitized patients. This is again extremely rare and barely occurs once in 1000 treatments. These symptoms can easily be controlled with several doses of prednison, calcium and/or antihistamines. To prevent possible reactions, after first carrying out fairly prolonged Dilution Treatment, 10 mg prednisone can be administered prophylactically with the injections of Dry Substances. However, the overall healing process and the therapeutic efficacy are not impaired by febrile reactions or local reactions. In many cases, e.g. in cancer, these reactions do in fact have a favourable effect and so here they are provoked therapeutically and Dry Substances are injected repeatedly at fairly short

intervals of 3-4 weeks between continuous Dilutions treatment. According to H. SCHMITT, the dangers of anaphylactic reactions can and should be avoided in the same way; this is usually done with serum treatment.

Since cytoplasmatic therapy's dynamics employ only materials limited and geared to the specific active principle, the injected volumes are so small that after injections of Dry Substances the much-feared stress-phase observed in common cellular therapy between the 10th and 14th day after treatment, never occurs. Patients with hyperergic reactions in a university d ermathological clinic were treated repeatedly with Revitorgan Dry Substances without any signs of sensitization. It is important to know how to control reactions if immunologically active methods of treatment are to be used. Although there have never been any serious complications, this has to be mentioned to be absolutely safe.

Onset of action and duration of the therapeutic effect

Questions as to when the effect begins and how long it is maintained, are often asked. Both depend on the type of disease. There are immediate and early effects and pronounced delayed effects, which take several months to appear. An immediate effect, like that often observed in cardiac arrhythmia, diuresis disorders etc., is a manifestation of the immediate substitution effect of the ingredients and particular mode of reaction of the body (stress, shift in the electrolyte balance, neural effects etc.). The macromolecular organ substances are effective over long periods. Stimulation sometimes takes several months, but it is often achieved in only 3-4 weeks. There are obviously limits to the regenerative capacity. However, there is nearly always a n improvement in the symptoms and general condition.

The duration of the therapeutic effect depends on whether recovery is in fact possible, since this is a necessary condition of permanent success. If the precipitating and harmful factors are not avoided, as with healthy people, there is the possiblity that the disease will reappear. It is obvious from the mechanisms of action that there are diseases in which continuous substitution, or at least intermittent substitution of active compounds and metabolites is essential, particularly where there is no genetic recombination, for instance in mongolism or enzymopathy. Continuous substitution also seems to be necessary in cancer. Treatment has to be repeated at certain intervals in diseases where there is hyperergic reactivity and pronounced autosensitization, e.g. in rheumatic diseases, lupus erythematosus, scleroderma, chron. hepatitis and nephritis, multiple sclerosis, auto-immune blood disorders and

others. However, there are also diseases which can be permanently cured, e.g. symptoms and sequelae of exposure to ionizing radiations, infectious diseases, surgery, i.e. usually conditions produced by single or non-repetitive multiple etiology. Endocrine disorders, particularly menstrual disorders and infertility, developmental disorders etc. can often be permanently cured. Revitalizing effects in premature aging and senile decay may last for years. Understandably enough, the question of a permanent effect can only be answered in the context of biorheusis (biomorphosis).

Notes on selecting the organ substances

Treatment with Revitorgan is isotherapy in which the diseased organs are treated with similar heterologous cell substances. The basic principle is to treat the insufficient organs. Cytoplasmatic preparations regulate the functions. Hyperfunctioning organs are treated by activating the related, insufficient organs by cybernetic feed-back mechanisms.

A number of different organ systems are usually involved in a disease and so it is necessary to restore the normal interaction of organ functions. This is achieved by concurrent or successive treatment of different organ types. Non-combined preparations can be injected or the therapeutic approach can be based on the combined preparations for specific clinical indications. However, treatment should always be tailored to individual requirements. In chronic diseases, often the first essential is to treat organs which are casually involved in the disease but which may not even be much in evidence regarding the clinical picture. The organs correlatively involved in the pathological process should also be treated first, in order to relieve the organ principally affected. In liver diseases, these would be, in particular, the intestine, gallbladder, pancreas, spleen, thymus and adrenals.

In heart diseases, the first thing to do is to relieve the damaged heart by improving the function of the metabolic organs and promoting circulation. The primary organs here are the liver, kidneys and autonomic regulatory organs of the brain, diencephalon and glandular system, and the organs mentioned under the liver diseases: liver, pancreas and gall bladder. These are a functional unit which performs many vital tasks. It is also often propitious to activate the flow of bile with choleretic agents in order to improve impaired fat metabolism. Even in patients with urinary calculi it is not always possible to stimulate metabolism simply by treating the kidneys. Even in patients with recurrent lithiasis, it is possible to cure the diathesis by combination with liver, pancreas and mucous membrances (REUTER).

It is advisable here to repeat the course of treatment several times at lengthening intervals. Thus,the old Paracelsian axiom "heart heals heart, kidney heals kidney" only needs to be enlarged upon. Sensible, relieving treatment is always the aim.

NIEHANS regarded the protective ferment reaction (AR) (ABDERHALDEN) as an aid to select the organ preparations in therapy with cells. However, this method is beset with a number of problems. In future, immunological and electrophysical methods may be available for organ diagnosis.

Nevertheless, a detailed anamnese, taking account of familial history, and interpretation of the subjective symptoms and clinical findings in the light of modern knowledge of endocrine and other pathophysiological inter-relationships, will continue to be of utmost importance. Thus, formulating therapeutic plans and selecting the organ preparations can therefore become largely a routine procedure.

Notes on the indications and actions of specific organ substances

The placenta consists of a maternal and a foetal part. Both have to fulfil biological functions in the body and these functions are different and mutually antagonistic [29].

The maternal part of the placenta (decidua) prevents foetal cell invading the mother's body and the resultant metabolic effects. It is known that there is an almost immediate change in endocrine function once pregnancy has started, due to activation of pituitary function (Aschheim-Zondek and other pregnancy tests give a positive result). Autonomically speaking, the maternal body switches to an ergotropic course of reactions. Immunologically, sensitization to chorionic constituents develops. Decidua counteracts this and promotes trophotropic-type reactivity. Thus, preparations of trophoblast and chorion increases catabolic metabolism and, in certain circumstances, increase lowered blood pressure, whilst decidua promotes anabolism and reduces elevated blood pressure. Both parts of the placenta are vasoactive and promote blood flow, sometimes by creating fresh anastomoses between vessels. The different effects on cancer growth have already been mentioned. It may well be that the hormones protin and retin discovered by Nobel prize winner SZENT-GYORGYI [20] in the tissue of large vessels, muscles, tendons and in the thymus are also present in

19) THEURER and TRIEBEL, "Therapiewoche" 7, 11, 340/1957

20) SZENT-GYORGYI, Science 140, P 1391, 1963.

different concentrations selectively in the two parts of placenta: protin in the foetal part and retin in the maternal part of the placenta. Protin leads to renewal of cells and hence accelerates wound healing, whereas retin, like the chalones, inhibits proliferation. In the growth period, chorion preparations stimulate body growth, whereas decidua preparations inhibit it. The growth hormone or somatotropic hormone of the pituitary is probably also involved here.

These differentiated effects can be exploited for selective treatment by using the isolated parts of the placenta separately (THEURER and TRIEBEL, DBP). This elicits general actions, and has the desirable effect of backing up the effects of the organ preparations which are administered concurrently.

Revitorgan preparations are obtained from fully-functional placentas from the first and second trimesters. Placentas which have gone to full term and those from the third trimester have lost their activity because of a functional change during pregnancy. At best, they stimulate oestrogen production.

There is no advantage in using same-sex placentas, that is to say placentas from male foetuses for treating men; however, mixtures of placentas from male and female foetuses have proved valuable. One of the Dry Substance preparations is also made from total placenta (No. 15). With this preparation, specific components of action from the two parts should suppress one another. However, the vascular activity is retained and so this preparation restores a normal general blood pressure situation.

The following diagram shows the tendency in the activity of some organ preparations:

Organs with a trophotropic, assimilatory, anabolic and predominantely parasympathicomimetic action and which promote protein synthesis	Organs with an ergotropic, dissimilatory, catabolic and predominantely sympathicomimetic action and which promote protein catabolism
Androgenic glandular elements (testes)	Oestrogenic glandular elements (follicles)
Corpus luteum	Thyroid
Thymus	Adrenals
Lymphatic glands	Parathyroid
Spleen	Total placenta
Pancreas	Foetal part of the placenta
Pineal gland	
Maternal part of the placenta	

The organs not listed here cannot be classified by any specific system. Their function is largely regulated by the interaction between the listed organ systems

From the central nervous system, non-combined preparations of cerebrum (No.11), diencephalon (No. 12 and 36), cerebellum (No. 54) and medulla oblongata and spinalis (No. 13) are available. These differ ontogenetically. There was no advantage in further subdivision into specific centres. The cerebrum preparation also contains foetal whole-brain. Mental development during growth periods can be promoted by combining this with placenta and thymus preparations (combined preparation D 69 "new" = Antifocal). Encouraging results have also been obtained in senile dementia and encephalotrophy with this preparation. The effect is enhanced by additional anabolic agents with thyroid hormones and vitamin B.

Concurrent treatment with cerebellum is given in Parkinson's disease and parkinsonism. A combined preparation of different parts of the brain and brain stem conjugated with L-dopa is available for this (D No. 97). Medulla preparations have proved suitable for treating systemic diseases of the CNS including multiple sclerosis (combined preparation D 96 alternating with D 97, f3 Strength 0-I and 69"new"). CNS preparations are fairly potent antigens. It is therefore a good idea to give Dilutions rather than Dry Substances here. Fo diseases involving immunopathogenic auto-immune reactions, e.g. multiple sclerosis, Strength I of the Dilutions is often too highly concentrated and needs to be diluted 1:100 or 1:10. The dilution Strength 0 = 10^{-17} g dry substance per is available from diencephalon and spinal cord.

Thalamus and hypothalamus are parts of the diencephalon and form an integrated functional unit; they are therefore available as a single preparation. Diencephalic lesions can cause a wide range of autonomic symptoms, including autonomic dystonia and modifications of reactivity, metabolism and mental state. The diencephalon also has endocrine functions. It produces releasing hormones which stimulate pituitary secretion, and pituitary hormones have a feed-back effect on the diencephalon. For this reason, a special combined preparation of pituitary and diencephalon is available (No. 51).

Like the pituitary, the pineal gland is also linked functionally with the diencephalon. It is to be assumed that interactions with the diencephalon are impaired in nearly all chronic organ diseases and this produces an incorrect "organ sensation". THEURER therefore called treatment with diencephalon preparations "central neural therapy". Therefore, in chronic

organ diseases, allergic diseases, and particularly in endocrine metabolic disorders, including abnormalities of water and mineral balance and glucose metabolism, the brain and diencephalon should always be treated concurrently, particularly as overall autonomic changes may arise there (F. HOFF). This also seems to raise the threshold for allergic reactions. The hormones of the peripheral glands and therapeutic placenta preparations probably act on the pituitary indirectly via the diencephalic receptors. Diencephalic degeneration often occurs in cases of endogenous and exogenic poisoning, e.g. due to breakdown of body cells following irradiation injury and in infectious diseases, particularly virus diseases. This could be partly responsible for slow convalescence.

In pituitary hyperfunction, preparations from pituitary and from diencephalon are contraindicated. Cerebrum and pineal gland are recommended here.

Cybernetic interactions between the pituitary and its satellite glands, which cannot be specially discussed here, can be utilized in cytoplasmatic therapy as they are in hormone treatment.

Pituitary hyperfunction can be suppressed by stimulating peripheral glandular functions (gonads, adrenals, thyroid), and by utilizing the antagonistic effects on the maternal part of the placenta and of the pineal gland. Pituitary functions have to be inhibited in central diabetes mellitus, acromegaly and gigantism, in cancer and at the onset of the climacteric. The brain and gonads can be treated concurrently. Empirical experience has shown that pituitary function should also be suppressed in cerebral convulsions and schizophrenia, and pituitary is contraindicated. Pineal gland preparations, the maternal part of the placenta and cerebrum are particularly effective here. Pituitary preparations combined with diencephalon and chorion are indicated where there are symptoms of pituitary insufficiency (Sheehan's syndrome, Simmonds' cachexia), and in signs of secondary insufficiency of peripheral glands attributable to lack of pituitary stimulation (many menstrual disorders develop in this way). These preparations also have a favourable effect on depression. This also applies to growth and developmental disorders, particularly mongolism, Fröhlich's syndrome, sexual underdevelopment and cryptorchidism. Additionally the foetal part of the placenta and thymus should also be used. Posterior pituitary and diencephalon may be used for diabetes insipidus, and also in some peripheral organs, which may be involved in the pathological process, e.g. liver and kidney [21].

21) THEURER, "Ärztliche Praxis" 15/1958, P. 361.

On the other hand, the pineal gland is used to treat pubertas praecox, premature mental and psychical maturity and in particular schizophrenia, combined with cerebrum. Pineal gland combined with glandular organs of the opposite sex are very suitable for suppressing sexual functions and excessive libido.

Adrenal medulla and adrenal cortex are two morphologically, ontogenetically and functionally different organs with a synergic action. Since the effect of cortical hormones is enhanced by that of medulla, they form an anatomical and functional unit (LUCADOU). Clinical pictures involving adrenal hypofunction tend to involve cortex and medulla simultaneously. Medullary and cortical disorders can only be separated when these involve hyperfunction and adenomas, although these would seldom be treated in this way. Hence, for symptoms of insufficiency, it is better to use the entire adrenal than the cortex alone. Because of the small quantity injected, with Revitorgan preparations there is no risk of a hormonal substitution effect due to the medullary hormones (noradrenaline), and so even patients with hypertension tolerate injections of whole-adrenal preparations well. The preparations contain mixtures of male and female adrenals. Once again, there is no advantage in using preparations from the same sex. Treatment with adrenal preparations is recommended even when there has been widespread destruction of the adrenals. The effect can be elicited via accessory glandular elements which are activated by compensation.

Treatment with adrenal preparations is particularly effective in parasympathicotonic situations like those occurring in hyperergic-allergic conditions, predisposition to spasms and chronic organic diseases. It may also be indicated in chronic inflammatory conditions. In patients with gonadal insufficiency, particularly after castration, the adrenals respond to treatment with gonadal preparations by increasing production of the particular oestrogenic, progestational or androgenic gonadal hormones which they normally produce. Gonad preparations may therefore also be indicated in the climacteric or after castration, when their effect is exerted via the adrenals.

The parathyroid glands are responsible for maintaining constant blood calcium and magnesium levels. The levels of these alkaline earths fall where there are signs of insufficiency and the result is neuromuscular hyperexcitability which can be treated with Revirogan parathyroid preparation (No. 25). However, tetanoid conditions with increased neuromuscular excitability which may elicit many different symptoms (autonomic dystonia, vascular crises, migraine, anginous heart complaints, muscular spasms, chron. asthma etc.)

are not produced by hypoparathyriodism alone. Other factors are often involved, and these are expressed in GYÖRGY's formula

$$\frac{\text{K.phosphate.HCO}_3}{\text{Ca.Mg.H}}$$

It is clear from this formula that an increase in the values in the numerator will have the same effect as a decrease in the denominator; the potassium-calcium quotient is particularly important. An increase of blood potassium level may be due to adrenocortical insufficiency, and hence cannot be treated via the parathyroid glands. The principal symptoms here are those which occur in anaphylactic reactions, bronchial asthma, certain forms of cardiac insuffiency, duodenal ulcer and essential hypertension. However, it is better to treat essential hypertension with pancreas rather than adrenals because the K level is also lowered by stimulating insulin production, and blood pressure also falls as a result of the trophotropic effect of pancreas. Because of the structural und functional similarity between adrenal steroids and androgenic hormones and corpus-luteum hormone, it is understandable that treatment with testes and corpus luteum can also improve such clinical conditions. Recent research has shown that parathyroid contains an antagonistic principle for regulating metabolism so that the glandular preparation can be used to normalize the picture in both directions. However, treatment with cerebrum and pineal gland should always be considered for convulsive disorders.

Thyroid preparations are used for treating pronounced hypofunction of this organ, e.g. myxoedema and cretinism, and for systemic circulatory stasis and inadequate diuresis. Revitorgan thyroid does not act like a hormone preparation; it activates endogenous glandular function only to restore normal function. To be effective, there must still be glandular elements capable of being activated. Thus, with this treatment, there is no danger of over-production of thyroid hormone, which would have a detrimental effect especially in angina pectoris and circulatory disorders. Thyroid preparations can be used without hesitation in arteriosclerosis and they counteract hypercholesterolaemia and lipidaemia. Additional ovary is to be recommended for older men.

Liver and spleen preparations affect mesenchymal tissue and the reticulo-endothelial system; they restore normal resistance functions, and because they are highly vascularized, they have a favourable effect on the vascular system and peripheral circulation. Revitorgan liver alsoimproves metabolic

and detoxification processes. Liver has a good effect in arteriosclerosis and disorders of fat metabolism, and it is particularly suitable for relieving therapy of other organs, e.g. heart, kidney and nervous system. For this, it can be combined with pancreas and a mixture of various mucous membranes. There are differences between foetal and young liver. Foetal liver is still capable of forming blood and it is used in anaemia, usually combined with bone marrow and gastric mucosa. This preparation can also be used where there is increased destruction of blood by the spleen. The combination of young and foetal liver has a more pronounced effect on metabolic and detoxification processes because of the content of young liver. Spleen has proved valuable in achylia and allergic symptoms. Therefore, liver and spleen is a favourable organ combination (Revitorgan Dry Substance No. 45). This preparation is also particularly suitable for treating hyperfolliculinism, infertility, impotence and thyrotoxicosis by influencing hormone degradation and the sequelae of intoxication and infections.

Pancreas is becoming more and more important, therapeutically. These Revitorgan preparations are just as well tolerated as any other kind of organ. The therapeutic effect of this preparation is very varied because of its effect on glucose metabolism (insulin, glucagon) and indirect effect on protein metabolism and on cholesterol and lipid metabolism (lipocaic factor), as well as on circulation (kallikrein). Pancreas was therefore a constituent of most combined preparations.

Other indications are degenerative arthropathy, wasting diseases, diseases of the major organs (heart, kidney, liver) and vascular diseases (Raynaud's disease, endangiitis obliterans); it is also particularly useful in arteriosclerosis and allergic diathesis. For various reasons, it is not used so much for pure pancreatic diabetes. However, when combined with other preparations, it is very effective in diabetes of the elderly.

Kidney preparations also have an excellent effect, particularly in circulatory diseases and blood pressure abnormalities, and on metabolic and detoxification processes. Combined preparation No. 63 has proved valuable for treating recurrent lithiasis.

Preparations of the foetal myocardium affect the heart and the entire vascular system, and they also activate cellular immunity (SORKIN), possibly by stimulating cellular transmitters (adenylcyclase, cAMP). This would also suggest a favourable effect on malignant growths.

Mucous membrane preparations, particularly from intestine and gallbladder, bring relief in diseases of the liver and pancreas. Other indications are functional disorders of bile flow and gallstones. Of course, the latter cannot be dissolved by these preparations, but they may well prevent further stones forming once the mechanical causes have been eliminated. When combined with liver and pancreas preparations, gallbladder mucosa regulates fat metabolism. Cholagogues can also be prescribed for bridging or relieving therapy. Autonomic dystonia is often associated with disordered fat metabolism (J. KERN, Conference report 1962). Both respond well to this treatment.

Treatment with gastro-intestinal mucosa is recommended in dyspepsia, enzymopathy and intestinal malabsorption leading to avitaminosis or defiency of other essential substances, and in certain forms of anaemia. Intestinal mucosa combined with liver prevents constipation whereas when combined with pancreas it controls diarrhoea and provides for causal treatment where the bacterial flora is disrupted. Mucosae from the nose, throat and bronchial tree are essential for treating hayfever and allergic asthma. Colonic mucosa (Trs. 74) has proved particularly valuable for altering reactivity. Bladder mucosa can be considered for cases of chron. cystitis and prostate disorders. These different types of mucosa can be used in combination for all these diseases.

Thymus preparations affect the lymphadenoid system and hence antibody formation, particularly cellular resistance. They can be used to alter conditions where there is abnormal antibody formation, particularly in collagenosis and dysproteinaemia. Their predominant effect is anabolic, they promote regeneration and, combined with diencephalon, spleen, pancreas and mucous membranes, they are anti-allergic and are valuable in osteoporosis, various types of myopathy, growth and developmental disorders, mongolism, hypercholesterolaemia and lipidaemia etc. Thymus stimulates body growth during periods of growth. It is effective in convulsive disorders and it is of great potential value for combatting the diseases of old age. Foetal thymus inhibits cellular immune reactions, young thymus stimulates them (THEURER, SORKIN).

Indications for gonad preparations

Both types of sex hormones occur under normal conditions, in both men and women; the balance between androgenic and oestrogenic hormones is the crucial factor as regards a person's sex. This balance can be disrupted in certain diseases.

With substitution therapy or the pharmacodynamic use of hormones of the opposite sex there is a risk of altering bodily functions and in fact the whole character of the patient towards the opposite sex. However, the mechanism of action of Revitorgan preparations is basically biological so there is no risk of untoward effects when giving gonad substances of the opposite sex.

It is necessary to diagnose precisely which hormonal functions are impaired in order to be able to select the correct preparations for instituting treatment of disordered gonadal function, which is very common.

In women, just before the menopause ovulation occurs less and less frequently and no fresh corpora lutea are formed, and so there is relative corpus luteum insufficiency. This can also occur during the menarche. The symptoms are then caused by "hyperfolliculinism" and can be permanently controlled with corpus luteum preparations. This will deal simultaneously with any tendency to pituitary hyperfunction. On the other hand, persistence of the corpus luteum until there is cyst formation can be treated with total ovary (No. 17) or with ovarian follicle (No. 18). At the onset of the menopause, the androgenic components often need backing up. This can be done with Revitorgan No. 1 (testes with no spermatogenesis), possibly combined with corpus luteum (No. 49). Testes with no spermatogenesis act by producing androgens because of their Leydig's interstitial cell content and so they are effective in oestrogen-dependent tumours, particularly of the breasts. To avoid sensitization to sperm, women should only be given preparations of testes with no spermatogenesis.

Hyperfolliculinism can also be produced by hepatic insufficiency or vitamin B avitaminosis, because this group of vitamins contributes to the breakdown of oestrogenic hormones in the liver. These vitamins would not be available in sufficient quantities in chronic intestinal disorders combined with disruption of the bacterial flora. Therefore, additional treatment with liver and intestinal mucosa and administration of vitamin B complex is often recommended. According to studies by DIETEL and BAUR, preparations of lactating breast suppress excessive follicular hormone secretion. Lactating mammary gland was therefore used in a combined preparation to treat corpus luteum insufficiency and hyperfolliculinism (Trs. 60) It may be propitious to potentiate the effect of this preparation with the non-combined preparations named.

Frigidity is usually a manifestation of hyperfolliculinism and can be treated in the same way as this disorder. Chronic constipation, preclimacteric

bleeding and uterine myomatosis are often also caused in this way. Before deciding on radical surgery in uterine myomatosis, it is a good idea to try treatment with suitable cytoplasmatic preparations.

Women with hypogenitalism or women later in the menopause when oestrogen production ceases and androgens begin to predominate, need treatment with Revitorgan follicular or total ovary. The menopausal condition of pituitary hyperfunction may now have developed into insufficiency and so additional treatment with pituitary, diencephalon and placenta preparations is appropriate.

Posterior pituitary and diencephalon have proved useful for improving post-partum uterine involution. This combined preparation is highly recommended where there is after-bleeding. Menstrual disorders can be successfully treated with Dilutions 17 oder 21, given together with pituitary and diencephalon (No. 51) by Kaufmann's method, as with hormonal treatment. If a woman wishes to have children after a fairly long period of hormonal contraception (the pill), gonadal function should be activated with total ovary or ovary follicle to prevent genetic aberrations (mongolism).

In men, infertility can be successfully treated with testes with spermatogenesis and with liver, and in some cases, pancreas, mucous membranes and pituitary with diencephalon, to enhance inactivation of oestrogenic hormones in the liver and correct any extragenital hyperfolliculinism this may have a hormonal castration effect (disrupted bacterial flora, liver diseases). The tonic effect of testes with spermatogenesis on soft, strophic testes and the stimulant effect on spermatogenesis is impressive evidence of the specific organic action. Preparations of epididymis and seminal vesicle (No. 50) may also be required. Results, even in animals, have been better than those obtained with other drugs. Of course, there must be no mechanical obstruction.

On the other hand, impotentia coeundi is often psychological in origin and should therefore also be treated from this angle. Organotherapeutic preparations to be considered are here cerebrum, diencephalon, spinal cord affecting the sexual and erection centre, pituitary to stimulate gonadotropic function, corpus cavernosus, seminal vesicle and epididymis in a combined preparation (No. 50) and adrenal and, in hypotonia, the foetal part of the placenta.

Prostatitis and prostatic adenoma (hypertrophy) in the first and second stages

can be treated effectively with testes with and without spermatogenesis and prostate. Concomitant treatment of the diencephalon may also be crucial here. In men, testes with no spermatogenesis (No. 19) are recommended in all cases in which the aim is to stimulate androgen production rather than spermatogenesis.

Opposite-sex preparations of total ovary or ovarian follicle are indicated in men, e.g. with prostatic carcinoma and for follow-up treatment after surgery. Prostate and combined preparation No. 66, and maternal placenta (No. 70) are also considered here. Ovarian preparations have also proved of value in arteriosclerosis with disorders of fat metabolism, in endangiitis obliterans and other vascular diseases, in certain cases of alopecia and in acne.

Treatment of infertility involves countersensitization followed by treatment with Revitorgan Dilutions and Dry Substances. Men may be autosensitized against their own semen, particularly if previous orchitis or epididymitis has caused sensitization. Here, the Dry Substances mentioned above should only be injected after introductory Dilution treamtent and countersensitization.

In women who desire but who have failed to have children, ejaculation usually occurs in the vagina and this may cause sensitization to the husband's semen. Here again, there must be countersensitization treatment, and ejaculation into the vagina must be avoided for at least two or three months during treatment and then subsequently after conception [22]. Countersensitization is important too in women who have aborted several times and who may be fairly strongly autosensitized against chorionic cells. This could prevent nidation. Administration of the foetal part of the placenta and total placenta is contraindicated in these women, although they can be given the maternal part. In women with no tendency to abortion, these preparations produce a low concentration of cytotropic antibodies against the foetal part of the placenta, and these promote nidation. Since countersensitization never does any harm when used properly, it is recommended in all cases of infertility as pretreatment. The basic organ preparation to be considered here is No. 60 and, when there is extragenital hyperfolliculinism, possibly liver and corpus luteum and young testes combined with pituitary and diencephalon. GS can be continued throughout pregnancy in incompatible pregnancy; the blood preparations should be renewed every one to two months, if necessary also using the old stock solution to produce new dilutions (LEHMANN 1971, P. 29).

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22) cp. THEURER, "Therapiewoche" 12/1962.

Important indications

Definite contraindications to therapy with cells and other organotherapeutic preparations may actually be indications for Revitorgan Dilutions. These include infectious diseases, inflammation, toxicosis due to foci, intoxication, side-effects of drugs and radiation injuries, withdrawal treatment, infarction, apoplectic strokes, allergic diseases and immunopathogenic auto-immune diseases.

Eye diseases

Decide whether the disease is inflammatory or degenerative, whether there are any symptoms of a metabolic or vascular disease. Treat the organic causes, e.g. kidney disease, hypertension, diabetes mellitus, angiopathy with D, GS, T, L. Also, local treatment, possibly with subconjunctival injection of the Dil. or by conventional application of ophtalmic preparations D 37, 40, 52, 58, 75, and also D 97 or 69 n. In degenerative diseases, e.g. cataract, opacity of the vitreous body T. Conjunctisan A prophylactically and therapeutically, and Conjunctisan B in inflammatory-allergic diseases several times a day at first and then in increasing intervals. Administration: conjunctivally and nasally.

Allergy

The disposition to hyperergic-allergic reactions is modified by cytoplasmatic therapy with the types of organs which are directly and indirectly involved in the immunological phenomenon, e.g. diencephalon, pituitary, adrenals, thyroid, thymus, spleen, lymphonodes, mucous membranes (D 78, 65, L 65). Suppressing immunopathogenic and sensitization processes by countersensitization (GS) using the serum activator preparation produces the necessary conditions for eliciting organotherapeutic modifications. D treatment should be given before GS in order to enhance reactivity to GS and to ensure that it is successful.
With D and GS, the more marked the allergic disposition and the clinical symptoms the more the preparation should be diluted and the shorter should be the intervals between injections. Blood should be sampled and the GS preparations made before treatment starts. D 78 and 65 n should be given alternately daily for 4-6 days, then every other day for one week, and finally every 3rd day; in each case one ampoule is injected s.c. or i.m. Then there should be 8-15 treatments with GS, e.g. dilutions 10^{-14} rising to 10^{-6}, normally starting at 10^{-12} or 10^{-10}, again daily at first and then every 2nd or 3rd day. Then the Dilution treatment is repeated with additional use of the single organs where the allergy is manifest, e.g. D 5, 55, 43, 39 or 25, 21 and others; milder cases can be given T instead of D or following D

(T 31, 32, 33, 47, 60), depending on the individual case. In bronchial asthma, T 47 has proved particularly good because of the vicariation effect of different types of mucous membrane.
Treatment with D and GS can be repeated at any time, starting with a low initial dosage, or they can be given over a long period. The minimum interval for T is six months. On injection-free days, nasal application of Conjunctisan B or L 65 and 69 (perhaps alternately) and local use of Neydin M ointment is recommended.
Concurrent treatment with chemical immunosuppressive agents (corticoids, ACTH, cytostatic agents) is advisable for controlling potentially dangerous conditions. However, blood should be sampled for GS beforehand and this kind of immunosuppression gradually phased out during treatment with D and G.
For seasonal allergies, the preceding year's GS stock solution can be mixed with a freshly prepared solution and used for preparing new dilutions. The stock solution from the previous year is used for preseasonal desensitization. This is preserved and can be stored. Dilutions should be renewed at 6-8 week intervals. In pollen allergies involving different allergens, a fresh stock solution should be obtained when a new allergen appears and mixed with the previous solution or solutions for preparing new dilutions.

Diseases due to ageing

64 or 64 n DLT as basic therapy. With D, 2-3 series each of 5 injections and also, if needed, one of each non-combined preparation or 1 to 3 non-combined preparations alternately as a mixed injection, of the organs needing treatment and of the endocrine organs; if necessary, can also be alternated with a further mixture of a combined preparation with a non-combined preparation or the free combination of various non-combined preparations as mixed injections. Preparations which may be used are 6, 7, 11, 14, 20, 26, 30, 43, 51, 59, 61 n, 63 n, 67, 68 n, 69 n as Dilutions. As a rule, the following are particularly important treatments: heart 6, pancreas 14, liver 26, kidney 27, cerebral cortex 11, 54 DT.

In hypertension 70 DT, 64 r-T.
In hypotension 71 DT, 64 b-T.
For men 16 DT, 35 DLT, 50 T.
For women 17 DT, 49 T.

Blood diseases

Where there is a tendency to haemorrhage, mixture of D 39 and 28, in each case one ampoule of Strength II or III 10-15 ml L 65, 3-5 drops lingually and nasally several times a day.

In anaemia, organospecific treatment of the cause of the disease, and in addition D 65 n + 39, 61 n + 28, T 1, 45, possibly G + S.
Sequence: D, S, D, G, D, L 65 + D 39.
In leucosis, see multifactorial treatment of malignant tumours. In addition, D 39, 73 + 28, T 1, 6. In the interval D 66 n with additional D 39 and 6 Str. II.

Bronchopulmonary diseases

Bronchial asthma - during attacks remove blood to make preparations for G and possibly S, treatment with symptomatic immunosuppression with corticoids, ACTH, cytostatic agents, concurrently D 65 n, 78 + 2 and if necessary anti-infective treatment (antibiotics, chemotherapeutic agents), then gradual phasing out of chemical immunosuppression if necessary continuing antibiotic treatment, G 8-15 treatments daily at first, then every 2nd day and finally every 3rd day, then D again and T 47, 44 to conclude course of injections. Repeat the course of injections if necessary, without chemical immunosuppression. Only repeat after 6-8 months - on injection-free days during the interval L 65, 69 if necessary with addition of D 55 + 2 alternating with B.
Chronic bronchitis: Increase resistance with D 65, (6 + 2), L 65 on injection-free days with additional D 2 and 55, B (lingual and nasal).

Where there is an infectious etiology and bronchiectasis after D, G in high concentrations 10^{-4} - Ø at intervals of 3, 5 and 7 days, 3-5 times in all with concurrent anti-infective treatment (antibiotic, chemotherapeutic drugs). Then repeat D and additional 61 n or 6 and, where there is an improvement, T 20, 44 or 47, 51. For interval treatment L 61, 65 with addition of D 2 and 5 Strength II, or in sequence D, S, D, G, T, L + B.

Vascular diseases of an inflammatory-allergic character: D 65 n + 71, 59 + 6, then GS and repeat D. Additionally, L 65 and B alternately on injection-free days and as follow-up treatment.

In arteriosclerosis and Bürger's disease: D 64 n, 59 + 6, 97 or 69 n, then T 64 r or b depending on blood pressure, 15.

In Raynaud's disease: D 21+58, 65 n, G, D, L 65 and B alternately, T 49 or 19.

Skin diseases

Treat organic causes, particularly liver, pancreas, kidney, mesenchymal and lymphatic organs.
Where there is a hyperergic-allergic etiology D 65 n, 78 + 5, 29 f + 25 if necessary 61 n + 6, then G and if necessary D again, then T 5, 45 if necessary

65; as adjunctive treatment on injection-free days and for follow-up treatment M, B, L 65 or 61 locally, for dry skin NT and NB for nourishing the skin.

Acne vulg.: D 23 + 5, 65 n + 17, G to provoke the immune system 10^{-4} to Ø at intervals of 3, 5, 7 days with 4-5 treatments, repeat D, local F and NT.

Eczema: Make preparations for GS and S, treatment with D 65 n, 78 + 5, then S for 4-6 days daily, every 2nd day for one week, then every 3rd day, 6-10 treatments in all, repeat D, then G, again daily, then every 2nd day and finally every 3rd day, then T 5, local M with L 65 incorporated, possibly B and L 65 nasally.

Herpes labialis: M and B locally, D 65.

Herpes zoster: D 65, (6 + 96), concomitantly L 65 alternating with B, local M and L 65.

Panniculosis: see connective tissue diseases.

Psoriasis: Before starting treatment make preparations for S and G. Treatment with D 96 + 70, 66 n + 28, 78 + 5, then S conjugated with corticoids, daily for 4-6 days, then every 2nd day, repeat D, then G every 3,5 and 7 days in a high concentration 10^{-3} to Ø s.c. or i.m., 3-5- treatments in all. T 51 and 19, local M with incorporated D 70 Strength II. S may not be necessary.

Cardiovascular diseases

Prophylaxis of myocardial infarction: D 64, 97 + 6, T 64 r or b, 15 or 6.

Treatment following myocardial infarction: take blood for G, D 6, 64 + 23, on injection-free days L 65 alternating with B, after a few weeks G, then 61 n, 64 n + 6, for follow-up treatment L 61 alternating with 35. Also additional conventional drug treatment.

For decompensated heart disease possibly i.v. D 6, 64 I - II, on injection-free days L 61,64 alternately, also conventional cardiac treatment.

Myocardial degeneration, myocardosis and the late sequelae of intoxication in infectious diseases: D 6 + 26, 61 n, 97, alternating with 64 n, possibly G, T 42, 45 or 61, on injection-free days and for follow-up treatment L 61 and 35 alternately.

In heart disease it is particularly important to give correlative relieving therapy of the liver and via the endocrine system, possibly with D 26 + 53, 30 or 51. Of course, vitia do not respond, although the concurrent muscular insufficiency will.

Additional D 2 + 6, 36 or T 44 can be considered in cor pulmonale. Good results have also been achieved with these preparations in pulmonary emphysema.

In coronary sclerosis careful dosage of D 6 + 59, 97 + 17, T 64 r or b, 15. If possible treat blood pressure abnormalities causally. Hypertension: D 70 + 6, G, D 63 n, T 64 r; Hypotension: D 51 + 71, 20 + 6, T 64 b

Hormonal diseases

See notes on selecting organ substances P. 44.

In acute infectious diseases, metabolic damage is produced in the body cells by the pathogenic metabolic products from micro-organisms or by viruses, and as a result of the side-effects of anti-infective treatment. This metabolic damage can be treated with Revitorgan Dilutions, thus shortening the period of convalescence and overall recovery. This is also effective in virus diseases and their sequelae, e.g. paralysis following poliomyelitis, as long as there are still ganglion cells capable of regeneration; also the many different autonomic-dystonic complaints following influenza and surgery.

Chronic infectious diseases and imflammatory organic diseases may lead to autosensitization against cell substances of the diseased organ. The need here is for organ desensitization and higher resistance, with concomitant anti-infective treatment and then treatment to promote molecular regeneration with GS and Dilutions.

Toxicosis due to foci requires more than surgical treatment. These patients often present with diencephalic degeneration and this can be cured by "central neural therapy" with Revitorgan Dilutions of diencephalon.

Infarctions and apoplectic shock produce shock syndrome and autonomic imbalance. These conditions respond well to Dilutions of pineal gland, diencephalon, cerebrum and foetal myocardium. Autosensitization occurs after a few days due to the dying cells. Desensitization treatment is necessary here. On the other hand, in recent infarction Dilutions can be used from the outset, perhaps added to infusions in descending dilution, i.e. from Strength III to Strength II to the highest dilutions and then rising cautiously again to a therapeutically effective concentration. Strength III does not usually have to be used again for further treatment.

Bone and joint diseases

Arthrosis: D 61 n, 96 + 43, 68 n, G, repetition of D para- and intra-artic. D 43 I-II, then T 15, 43.

Osteoporosis: D 43+96, 68n + 29 f, 23 + 6, then T 19, 61, possible after D, G, L 64 and 69.

Sudek's disease: D 96 + 43, 97, 68 n, G, T 64 r

Hepatic and biliary diseases

In acute hepatitis and chron. progressive viral hepatitis no G, here desensitization with D 65n+6 daily for 4 days, then for 1-2 weeks every 2nd day and finally every 3rd day. Then L 65 n, possibly mixed with D 26 Strength II, D repeated after 2-3 weeks. Once the enzyme levels have mostly returned to normal, T 26, 14, 61. Course of injections repeated with D after 1, 2, 3, 4, 6 months. In the interval L 61 and 65 alternating with B nasally. T not repeated for 8-12 months. Possibly G as high-dosed provocation.

In immunopathogenic hepatitis and cirrhosis D 65 n + 26 alternating with 78 + 6 daily, then every 2nd day and finally every 3rd day, then G, then repeat D 65 n, 61 n, 26 + 14, if necessary alternating G and D several times, on injection-free days and in the interval L 65 and 61 alternating with B. T 45 and 26 only with Takata-ara readings from 70% at intervals of 4-12 months, with L and B in between.

In hepatic cirrhosis, several switches of D 65 + 53, 26 + 14, 16 + 23, 67, then G. T 61, 45, 47 at intervals of 6-12 months, in between L 65, 61 and B.

In cholecystopathy, surgery at a proper time, with G before and after surgery, then D 65 n + 53, 61 n concurrently with G anti-infective treatment, D and G as i.c. injection over the right eyebrow and segmentally.

Postoperative biliary disorders: D 65 n + 53, 69 n, G, T 45, 65, L 61, 69.

Intestinal tract disorders

Gastric and intestinal ulcers: D 65 n, 55 + 78, 69 n, G, daily at first, then every 2nd day and finally every 3rd day, repeat D, then T 65, 31, L 65 alternating with B on injection-free days and for follow-up treatment.

Pancreatic disease, similar to treatment of liver and kidney diseases in the sequence D, G, D, T and L alternating with B.
For further indications, see table of indications.

Diseases of muscle and connective tissue

D 96 + 6, 64 + 23, possibly G, T 3, 64 r, L 96.

In muscular dystrophy intensive initial treatment with D, 2-3 times a day for 1 week, then once a day for one week depending on degree of improvement, then every 2nd or 3rd day. On the injection-free days and for follow-up treatment L 96, 69 and 64 at increasing intervals.

Cellulitis or panniculosis (orange skin): D 21 + 73, 61 n + 5, local M incorporating D 71, T 49, 60.

Kidney and urinary tract diseases

In inflammatory, hyperergic-allergic aetiology and immunopathogenic auto-immune conditions, see under those headings. Make the preparations for G and if necessary S, treatment with D 78 + 7 Strength 0-I, 65 n, 63 n. Then S or G daily, then every 2nd day and finally every 3rd day, 10-12 times in all. Repeat D, then possibly G, then T 63 and 42, L 65, 63, B.

Renal lithiasis, prophylaxis of relapses: course of injections with D 63 n, 61 n at intervals of 2, 4 and 6 months, T 63 at intervals of 6 months, L 63, 35

Neuropathies

Neuritis: D 96, 65 n, 69 n, G, repeat D, local injections i.c and s.c., T 20 on improvement. L 69, 65, vitamin B complex on injection-free days and for follow-up treatment.

Autonomic disorders
(organ neurosis)
Make preparations for G, start treatment with D 65 + diseased organ, 25 + 20, then G, repeat D and possibly T 36 and 49 or 16.

Nose and ear diseases

Difficulty in hearing: Injections of D 38 + 59, 25 + 97, 6 + 70 local i.c. and s.c. to the mastoid, T 19, 15, L 69.
Noise in the ears: D 38 + 25, 97, 67 + 19.

Eczema of the external auditory meatus: see allergy and skin diseases.

Ailments of the nose and paranasal sinus: D 65 n + 55, 73 + 29, on injection-free days and for follow-up treatment L 65 and B, later possibly G, T 65. Before and after surgery, G with anti-infective treatment.

Rheumatic diseases (serum positive)
Before starting treatment, make the preparations for G and S conjugated with Urbason, preliminary symptomatic immunosuppression with corticoids, ALS, cytostatic agents, concurrently D 78 + 43, 68 n, 96, daily for 4-6 days, every 2nd day and then every 3rd day for 1-2 weeks, then S daily for 2-6 days, then every 2nd day or every 3rd day, 10-12 treatments altogether. Stop chemical immunosuppression at the latest when D is repeated. After G, repeat D, then T 60, 19, 23.

Shock syndrome, impaired autonomic regulation

In infarction, apoplectic shock, post-operatively, D 65 n + 6, 69 n, 64, 2-3 times daily for 2-6- weeks, then daily for one week, then every 2nd and 3rd day, in each case in series of 5 injections, increasing from Strength I to II. Where there is autosensitization, G in series alternating with D, additional L 65 and B on injection-free days and as follow-up treatment.

Metabolic disorders

Diabetes mellitus: With doses higher than 20 U/day insulin, G. Make the preparations before starting treatment, then D 67, 96 + 14, 23 + 6, then G, at the same time L 64, repeat D, then T 14 and 45, possibly 64 r.

Hypercholesterolaemia and lipidaemia: D 71 + 30, 61 n + 29, 17 + 55, if necessary several times in alternation, T 64 r or b, 14, on injection-free days and for follo up treatment L 64 and 69.

Growth and developmental disorders

Excessive longitudinal growth is inhibited by treating the peripheral glands with D, T according to sex 16 or 17 and 20.

Where growth is impaired, central stimulation D 51 + 71, 69 n, 30 + 29, T 64 b, 22 a, Repeat D, T at intervals of 3,5, 7 months.
Impaired sexual development, hypogonadism, cryptorchidism: D 51, 69 n, 16 or 17 in girls, T 22 a, 16 or 17 and 18.

Mongolism: courses of injections with D 29 + 30, 51 + 71, 97 + 6 at increasing intervals of 2, 4 and 6 months, and T 64 b, 11 at intervals of 6 and 12 months. Interval treatment with L 69 and 64 alternately. Treatment throughout the entire period of growth and development.

Diseases for the central nervous system

In convulsive disorders: D 23 + 96, 11 + 70, 25 + 29. Series of treatments alternating with G, T 23, 19 and 60 at intervals of half to one year.

Mental retardation: D 69 n, 97, 30 + 65, T 11, 15.

Stimulating memory and mental powers: D 69 n, 97 + 6, L 69, T 6.

MS and postencephalitic conditions: Make the preparations for G, start treatment with D 96 + 23, 97 + 78, 65 und 13 Str, 0-I alternately, daily for 6 days, for 2 weeks every 2nd , then every 3rd day, then G again daily, then every 2nd and 3rd day, 10-15 times in all, repeat D, on injection-free days and for follow-up treatment L 69, 61 alternating with B nasally, repeat the course of injections after 1, 2 and 4 months.

Contusions and sequelae: D 69 n, 97, 64 alternating with G, follow-up treatment with L and B.

in withdrawal treatment: D 61 n + 26, 96 + 11, 69 n + 25, T 45, 42, L 69 and 61. For further indications, see table of indications.

Dental diseases

Where there are pulpitic signs of irritation and diseases of the paradontium, 1-3 injections of 0.2 - 0.5 ml D 10 n into the marginal duplication of the gingiva near the affected region daily for 2-4 days, then every 2nd day with an increasing dosage. As an adjunct and for follow-up treatment Z.

Temporomandibular joint diseases: D 10 n and treatment as for arthropathies, para- or intra-articulary D 43 Strength I-II, also Z.

In aphta: D 65 n, 78 + 55, Z, B.

In periodontosis: D 10 n, 61 n, G, repeat D, Z. G before and after tooth extractions.

Special indications

Diseases due to foci:

Provocation of focus by G in high concentration 10^{-3} to Ø, 0.1 - 0.5 ml s.c., at intervals of 4-5 days until latent focus becomes manifest, then further treatment with dilutions of 10^{-14} increasing with daily treatments for pretreatment and follow-up treatment after surgical cleansing. Then D 65 n + 73, 69 n. During cleansing of infectious foci, additional anti-infective treatment.

Immunopathogenic auto-immune conditions:

Before starting treatment, remove blood for S conjugated with corticoids and G, treatment with D 65 n, 78 + diseased organ, in dilutions of Strength 0-II, appropriate organ combination, daily for 4-6 days, then for 1-2 weeks every 2nd day and then every 3rd day. If necessary, concurrent chemical immunosuppression with corticoids, antilymphocytic serum or cytostatic agents, stopping these during S, this being daily for 6 days, then every 2nd day for 1 week, then every 3rd day i.m. or i.v., 10-12 treatments in all. Then repeat D, then G again daily, every 2nd and 3rd day. T 65 once the symptoms have subsided. L 65 and B alternately on injection-free days and for follow-up treatment.

General revitalization:

Specific treatment of possible organic disorders with D, G and/or T, otherwise D 97 and same-sex gonad 17 or 16, 64 n + 29, 3 times a week and then twice a week. T 64 r or b, 16 or 60. For follow-up treatment L 35, 64, 69 alternately.

Treatment of malignant tumours and blood diseases

Here there are various targets of action for treatment with Revitorgan preparations;

A. As tonics, particularly after the detrimental effects of conventional methods of treatment (surgery, radiation, chemotherapy) and for improving the body's resistance (phagocytosis, cellular and humoral immunity) and resistance to carcinogenic noxae with preparations from lymphatic tissues.

B. Restoring normal endocrine and autonomic regulation, particularly of the diencephalon and in hyperfunction of the anterior pituitary by reactivating peripheral glands and the pineal gland with concurrent administration of the maternal part of the placenta (decidua).

C. Restoring normal metabolic functions of the major organs, liver, pancreas, kidney, lung and bone marrow.

D. Stimulating mast cells and synthesis of heparin with foetal connective tissue from the umbilical cord. Anticoagulants reduce the tendency of fibrin to precipitate and deposition of thrombocytes and tumour cells. This prevents metastasizing. Sodium lauryl sulphate, which is used in the Dilutions, is a surfactant and can enhance this effect. There is also the possibility of selective damage to the tumour cells by osmolysis (THEURER: Hippokrates No. 18/1959, P. 669).

E. Breaking through any immunotolerance to tumour antigens and increasing the immune reactions by treatment with preparations from lymphatic tissues, partularly lymph nodes,lymphocytes, thymus, spleen and bone marrow.

F. Sensitization to foetal proteins which are produced again in certain types of tumour, by treatment with preparations from foetal liver and intestine.

G. Activation of endogenous synthesis of interferon by treatment with double-strand RNA from liver and placenta. Interferon inhibits the multiplication of viruses and may prevent carcinogenic transformation.

H. Activation of synthesis of adenylcyclase by treatment with preparations from foetal myocardium. In tumour cells, adenylcyclase and cAMP, which depends on it, is reduced. This isolates the tumour cells from humoral regulation (CHANDRA).

I. Activating the formation or substitution of chalones organospecifically by factors from cow decidua. Chalones regulate and inhibit cell proliferation. Young and adult cells contain more chalones than foetal cells and so they are also used in the preparations.

K. Activation of oxydizing metabolism and inhibition of synthetic and proliferative processes in cancer cells by treatment with factors from cow decidua.

L. Sensitization of cancer cells to radiotherapy and chemotherapy, perhaps synchronizing their metabolism by preparations from cow chorion or cow trophoblasts.

Potential prophylaxis of cancer by cytoplasmatic organotherapy:

a) Treatment of clinical conditions and preventing aging - restoration of normal organ and cell functions.

b) Sensitization to any tumour antigens in the foetal tissues (liver and intestine).

c) Measures to prevent development of immunological tolerance by repeated injections of Trs.No. 66 at intervals of 6 to 12 months for mobilizing immunological resistance.

Immunological resistance follows the law of mass action and is inversely proportional to the number of tumour cells, i.e. the fewer tumour cells present, the more effective it is. The aim should therefore be combined treatment with surgical removal of the bulk of the tumour and staged destruction of the remaining tumour tissue, by giving alternate phases of tonics and treatment to enhance general resistance mechanisms and phases of immunochemical destruction of the tumour. We call this "multifactorial cancer therapy" (THEURER: Physikalische Medizin und Rehabilitation No. 11/1968, P. 306; No. 6/1971, P.127; Zeitsch.f.Blut- u. Geschwulstkrankheiten No. 1/1971, P. 12).

The following technique has proved valuable:

Start treatment, if necessary before and after surgery, with i.v. injections of D 70 Strength II from 5 ml ampoules, in each case 5-10 ml on 4-6 consecutive days, then every 2nd to 3rd day, 10-15 injections in all, perhaps also added to a continuous intravenous drip. Concurrently with the 4th-6th treatment, additional i.m. injection of the suspension of T 66 (combined preparation for preventing endogenous tumour disposition). If necessary, BCG inoculation at the same time. 2-3 weeks later, remove blood and make preparations (antibody fragments with conjugated cytostatic agents (5fluoro-uracil, Vincristin or others) or factors from decidua cells. Following the series of i.v. injections of D 70, injection of D 66 (combined preparation) 3 times and then twice weekly, 5-10 injectionss.c. or i.m. altogether. Then treatment with the conjugated antibody fragments and, if necessary, additional radiotherapy or chemotherapy.

The blood preparations are also injected i.v., dialy for 4-6 days, then every 2nd day, 10-12 times in all. They can also be added to a continuous intravenous drip. The dosage depends on tolerance, and care must be taken to watch for any hyperergic-allergic reactions. This would indicate that a higher dilution and smaller injection amounts should be used, along with conventional anti-allergic measures.
The cytoplasmatic phase of treatment can be alternated repeatedly with the immunochemical phase. Then follow-up treatment should be given with Revitorgan Lingual No. 66 used orally and nasally, if necessary as continuous treatment. Injection treatment should be repeated at the first signs of a relapse. Injections of T 66 at intervals of 6 months to one year is recommended as maintenance treatment.

The treatment can be modified by injecting tumour antigens obtained by the Vitorgan technique from tissue removed surgically. These are injected into the patient at the same time as T 66. These preparations can also be used for immunological tumour diagnosis. A voluntary donor can also be immunized with this and then from his blood the preparations with conjugated antibody fragments are prepared for treatment of the patient. The blood group and, as far as possible, incompatibility antigens of the donor should correspond to those of the recipient. Extracts obtained from lymphocytes and lymphatic tissues of the donor can also be used together with suitable adjuvants.

The tumour becomes more complex as the disease progresses. Specific prophylaxis or early treatment should therefore be the aim. The results obtained so far have been encouraging.

Composition of the Revitorgan preparations and key to their numbering

Revitorgan Dry Substances, Dilutions, Dilutions"new" and Lingual preparations of the same compositions are given the same numbers.

The following abbreviations are used:

A = Conjunctisan A eyedrops
B = Conjunctisan B eyedrops
Di. or D = Revitorgan Dilutions and Dilutions "new"
F = Neydin F ointment
GS or G = countersensitization
M = Neydin M ointment
NB = Neyskin B cream
NT = Neyskin T cream
SK,S or H = serum cure with antibody fragments, hydrolysate
Trs. or T = Revitorgan Dry Substances
Z = Neydent toothpaste

Strength of Dilutions:

Strength 0 = 10^{-17} g/ml /only for D 7, 13, 30 and 36 on prescription)
Strength I = 10^{-12} g/ml solvent
Strength II = 10^{-9} g/ml solvent (lingual preparations + Conjunctisan) } of Dilutions "new"
Strength III = 10^{-6} g/ml solvent

The Dilutions contain sodium lauryl sulphate in decreasing amounts 20, 15, 10 µg/ml, D 64 also contains 25 U, 25 x 10^{-3} and 25 x 10^{-6} U heparin per ml.

Organs from foetuses

-T 1 Liver
DT 2 Lung
DT 3 Skeletal muscle
-T 4 connective tissue
DT 5 Skin
DT 6 Heart
DT 7 Kidney
DT 8 Spleen
-T 9 Periosteum
-T 10 Dental lamina + placenta + 36
DT 11 Cerebral cortex-cerebrum
-T 12 Diencephalon
DT 13 Medulla spinalis-medulla oblongata
DT 14 Pancreas

Special preparations from placenta

-T 15 Total placenta from 1st and 2nd trimester
DT 70 Maternal part of the placenta
DT 71 Foetal part of the placenta

Organs from young animals

DT 16 Testes with spermatogenesis
DT 17 Ovary, total
-T 18 Ovary follicle
-T 19 Testes with no spermatogenesis
DT 20 Adrenal
DT 21 Ovary corpus luteum
DT 22 Pituitary, total
-T 22 b Pituitary anterior
DT 23 Pineal gland
-T 24 Pituitary posterior
DT 25 Parathyroid

Organs from foetuses and young animals mixed

DT 26 Liver
-T 27 Kidney
DT 28 Spleen
DT 29 Thymus, f=foetal, k=calf, f+k
DT 30 Thyroid
-T 31 Gastric mucosa
-T 32 Small intestinal mucosa
-T 33 Colonic mucosa
-T 34 Bladder mucosa
DT 35 Prostate
DT 36 Diencephalon
DT 37 Cornea
DT 38 Internal ear
DT 39 Bone marrow
DT 40 Lens
-T 41 Vascular intima

Organs of various origins, mixed

-T 42 Heart-kidney-aorta
DT 43 Articular capsule-cartilage-synovia
-T 44 Thymus-lung
-T 45 Liver-spleen
-T 46 Arachnoidea-choroid plexus-cerebro-spinal fluid
-T 47 Small intestine-large intestine-mucosa
-T 48 Ovary follicle, ovary corpus luteum
-T 49 Ovary corpus luteum-testes with no spermatogenesis
-T 50 Corpus cavernosus-seminal vesicle-epididymis
DT 51 Pituitary-diencephalon
DT 52 Retina-choroidea-optic nerve
DT 53 Gallbladder
DT 54 Cerebellum
DT 55 Combination of various types of mucous membrane
-T 56 Mamma lact.
DT 58 Eye foetal
DT 59 Vessels foetal
DT 72 Umbilical cord
DT 73 Decidua, thymus, umbilical cord
DT 74 Amnion
D- 75 Vitreous body
DT 76 Lymph nodes
D- 78 Thymus foet.,spleen foet., adrenal, lymph node
LDT 96 Skeletal muscle, thymus, spinal cord, foet.myocardium

Organ combinations for specific indications and as basic preparations

-T 60 in hyperfolliculinism, corpus luteum insufficiency and autonomic dystonia in women - contains: corpus luteum, young testes, adrenal, liver, spleen, pancreas, mamma lact., and parathyroid.

-T 61 in chron. disorders of the liver and metabolism - contains: liver, spleen, pancreas, heart, kidney, adrenal, gastro-intestinal mucosa, gallbladder.

-T 62 in cardiovascular diseases , hypertension - contains: heart, kidney, aorta, liver, spleen, pancreas, amnion, testes thyroid, diencephalon.

-T 63 in chronic kidney diseases and lithiasis - contains: kidney, heart, aorta, liver, spleen, pancreas, adrenal, thyroid, bladder mucosa.

-T 64r r e d for hypertension with No. 70 + 19
-T 64b b l u e for hypotension with No. 71 + 17 + 20) + organ substances of 64

D- 64 in premature aging, impotence and geriatric diseases - growth and developmental disorders - contains: total foetus, thymus, diencephalon, cerebral

cortex, thyroid, amnion, gonad, adrenal, connective tissue, heart, kidney, aorta, liver, spleen, gastro-intestinal mucosa.

DT 65 in hyperergic diathesis (eczema, asthma, hayfever, mucous colic, rheumatism) - contains: adrenal, liver, pancreas, spleen, diencephalon, mixture of various types of mucous membrane.

DT 66 against endogenous predisposition to cancer - contains: pineal gland, liver, spleen, pancreas, gastro-intestinal mucosa, testes, adrenal, thymus, thyroid, bone marrow, amnion.

D- 67 to suppress sympathicotonic hyperexcitability and for increasing organ functions which promote an anabolic parasympathicomimetic effect; for adjunctive treatment of diabetes mell. with angiopathy - contains: testes, corpus luteum, thymus, spleen, pancreas, pineal gland, maternal part of the placenta, liver, kidney, gastric and intestinal mucosa, bone marrow, skeletal muscle, myocardium, connective tissue, cerebrum and diencephalon.

DT 68 NEYCHONDRIN -in diseases of the vertebral column, vertebral pain syndrome, joint diseases, arthrosis - contains: foetal vertebral column, nucleus pulp., maternal part of the placenta, liver, pancreas, gonad, diencephalon.

Combined preparations from Revitorgan Dilutions or Lingual with added Na-lauryl sulphate and conjugated drugs in concentrations of 10^{-3} to 10^{-9} of the unit dose

(For precise composition, see special brochure)

L- 35 = contains: prostate, testes, diencephalon - for use in prostatic disorders, impotence and for general revitalization.

D- 10 n NEYPULIN = organ combination as No. 10 with methylandrostenolone, prednisolone acetate, vitamins C and E.

LD 61 n FEGACOREN = organ combination as mixture No. 61/62 with methylandrostenolone, prednisolone acetate, tri-iodothyronine hydrochloride, lanata glycosides A, B, C, vitamins B_6, B_{12} and E.

LD 63 n NEYNEPHRIN = organ combination as No. 63 with methylandrostenolone, prednisolone acetate, tri-iodothyronine hydrochloride, vitamins B_6 and E.

LD 64 n NEYGERONT "new" = organ combination as No. 64 with heparin, methylandrostenolone, tri-iodothyronine hydrochloride, novacaine, vitamins B_6, B_{12} and E.

LD 65 n NEYNORMIN "new" = organ combination as No. 65 with prednisolone acetate, tri-iodothyronine hydrochloride, oestradiol benzoate, prolan, vitamins B_{12} and E.

LD 66 n NEYTUMORIN "new" = organ combination as No. 66 with methylandrostenolone, prednisolone acetate, tri-iodothyronine hydrochloride, vitamins B_{12} and E.

D 68 n NEYCHONDRIN "new" = organ combination as No. 68 with methylandrostenolone, prednisolone acetate, novacine, vitamin E.

LD 69 n ANTIFOCAL = Organ combination as No. 69

in developmental and functional disorders of the brain, cerebral sclerosis, post-traumatic lesions, autonomic dystonia and focal disorders - contains:

diencephalon, cerebellum, cerebrum, foetal brain, liver, pancreas, mucous membranes, thymus, foetal placenta with additional methylandrostenolone, tri-iodothyronine hydrochloride, prolan, vitamins B_6, B_{12} and E.

D 97 = contains: diencephalon, cerebellum, cerebral cortex, chorion conjugated with L-dopa and ascorbic acid. For treating Parkinson's disease, cerebral sclerosis and for stimulating cerebral functions.

Conjunctisan A eyedrops = for prophylaxis and therapy of eye diseases of the elderly, dry nasopharyngeal mucous membranes (ozaena).

Conjunctisan B eyedrops = in inflammatory and allergic eye diseases and catarrh. prophylaxis and treatment of the influenzal infections colds and ailments of the nose and paranasal sinus.

The two types of preparations differ as regards the concentrations of the active ingredients:
they contain high-molecular-weight extracts from the various parts of the eye and brain, foetal placenta, vessels, mucous membranes, spleen, lymph nodes, thymus, adrenals, and also esculin, Na-lauryl sulphate, lanatoside A, B and C.

List of indications with recommendations as to treatment

The recommendations below are only a guide to therapy; the physician must modify them as appropriate, to suit the clinical condition of each particular patient.
Using combined preparations as basic therapeutic agents means that, usually, only a few of the non-combined organ preparations are needed in addition. In fact, often these do not have to be used at all. Individual variations in the course of a disease are particularly evident from the degree of involvement of different organs. Therefore, the indications mention all the types of preparations which, as far as is known at present, could be needed; however, they will not at all be needed in each case.

The scientific advisory service of Vitorgan Arzneimittelfabrik, 7304 Ruit, Postfach 1240 (West Germany) will be delighted to answer any specific questions and, on request, will make detailed recommendations as to treatment.

Case material and further indications can be found in the conference reports on cytoplasmatic therapy and the methods of serum desensitization, and in reprints of specialist publications. These are available on request from Vitorgan Arzneimittelfabrik. The conference reports also supplement this manual.

The Revitorgan preparations have been numbered to simplify ordering. The key is the same for alltypes of preparations (See Composition of Revitorgan preparations).

List of indications

	Dilutions	Lingual	Dry Substances
Abortion, recurrent	G	78, 65 n	60, 49
Accident injuries	M or B	65 n, 69 n, L 69, 64	64 r
Acidosis	B	65 n, 61 n + 53, L 65, 61	31, 61
Acne vulg.	FG 10^{-3} - Ø	65 n + 17, 23 + 5, L 61	17
Acrocyanosis Acroparaesthesia)	NT, F, G	61 n, 51 + 71, 69 n + 17, L 69, 61	62, 45, 41
Addiction (opiates)		61 n, 97, 96 + 26, L 61 69	11
Addisonism, Addison	G	65 n + 71, 20 + 30, 51 + 17, 61 n, L 65	65, 22 a, 71
Agranulocytosis	G	65 + 39, 61 n + 73, 51 + 71	20, 39, 1
Allergic diathesis (urticaria, bronch.asthma, hayfever, vasom.rhinitis, colitis and others)	G	78 + 5, 51 + 71, 69 n, 65 n + 20	71, 36, 31, 47
Alternating psychosis		97, 61 n, 23 + 11	19
Alopecia	F,G	61 n, 71 + 5, local 73 + 5, 17	64 b, 15, 5
Amaurosis		58 + 69 n, 52 + 97, 67	61, 15
Amenorrhoea (see Menstrual disorders)			
Anaemia		65 + 39, 78 + 55, 61 n	31, 39
Anginose disease		6, 61 n, 70, 17, 61	6, 15
Anomalous sensations (hat sensation, heavy head)		53 + 70, 69 n, 64 n	64 b
Anorexia		61 n, 64 n, 23 + 6, L 61	61, 47

	Dilutions	Lingual	Dry Substances
Apoplexy, pre- post-	G	64, 6 + 53, 67 + 16 6 + 70, 64, 11 + 23	45, 64 r, 41 19, 41, 45, 15
Arteritis, chron.	M, G, B	65, 78 + 29, 69 n + 13	19
Arteriosclerosis	G, A	64 n + 6, 97 + 17, 59 + 23	15, 64 r or b
Arthrosis	M, G	61 n, 96 + 43, 68 n, 43 local	15, 43
Arthropathy		s. Arthritis, Arthrosis	
Arrhythmia		11 + 23, 69 n + 6, L 61	65, 42
Ascites		26 + 14 + 55, 78 + 30, 6 + 70	61, 26
Asthenia		64, 66 n, 61 n + 23, 97	64 b, 61
Asthma, bronch. G + anti-infect. treatment cardiac		78 + 2, 65 n 65 n + 2, 61 n + 6, 64 n	47, 44 6
Auto-allergic diseases	S, G, B	65 n, 78 + 28, 51 + 71, 14 + 69 n	
Basedow's disease, thyrotoxicosis	G, B	67, 23 + 26, 20 + 17 or 16, L 61	17 or 19, 20
Blockade in the resistance system		66n, 65 n + 78, 51 + 71	22 a, 64 b
Bone disease, degenerative	A	96 + 43, 64 n, 68 n, L 64	64 b, 68
Bronchiectasis G + anti-infect. treatment		65, 78 + 20, 55 + 2, 6 + 23, L 65, B	65
Bronchitis, chron. S, G, poss.with anti-infect.treatment		65, 78 + 55, 61 n + 6, L 65, B	65
Bronchopneumonia anti-infect.treatment		55 + 2, 65 n, 73 + 69 n	64 b
Buerger's disease	F, G, A	64 n, 73 + 58, 6 + 70, 96, L 64, 69	41, 15
Bulbar paralysis	G, A	97, 69 n, 64 n + 6, L 64, 69, 35	54
Burns	M, G	65 n, 69 n, 73 + 5, 61 n, L 64	

		Dilutions	Lingual	Dry Substances
Callus formation, delayed		96 + 39, 25 + 71, 73 + 43, L 65		64 b
Cancer	S	70 i.v., 66n, 23 + 26, organ spec. L 66 + D 39, L 66		19, 66, 47, 1
Cataract	A	67 + 59, 53 + 61 n, 40 + 58 A		64 r
Catarrhal diseases	G, B	65 n + 55, L 65, B		65
Catabolism, signs of		64 n, 73 + 6, 61 n, 97, L 64, 69		64 r or b, 15 42, 17 or 19
Cerebral symptoms in distemper (dog)		69 n + 13, 54 + 11		
Cerebral sclerosis		64 + 6, 97, 69 n, 61 n, L 61, 64, 69		64 r, 23, 11
Cervical spine syndrome	F, G	68 n, 69 n, 96 + 43, L 64		64 r, 68, 15
Chondrodystrophy during periods of growth		73 + 43, 68 n, 64 + 6		64 r, 19, 23
Cholecystopathy		65 n + 53, 61 n, 26 + 14, L 65, 61		65, 19
Cholangitis G + anti-infect. treatment		65 + 53, 61 n, 26 + 14, L 65, 61		65, 47
Circulatory disorders (endarteritis, endangiitis, chilblains, claudication, intermit. on inflam. basis)	G, B	65 n + 5, 64 n, 17 + 71, 6 + 59, L 64		5, 26, 42
Claudication, intermit.	G	64 + 59, 70 + 17, 69 n, L 64, 69		64 r, 41, 15
Climacteric complaints				
women		67, 21 + 65		60, 49 or 17
men		64 + 16, 69 n, 6, L 35, 69		6, 16, 20, 64 b
Colitis, chron., mucosa gravis haemorrhage	G	65 + 55, 51 + 73, 26 + 6, L 65, B		65, 47, 29, 36
Compulsive states		69 n, 97, 11 + 70		19
Collagenosis	M, S, G, B	65 n, 78 + 96, 25 + 51, 68 n + 43		60, 19
Collapse		65 + 58, 51 + 71, 69 n + 25, B, L 65		71, 20

		Dilutions	Lingual	Dry Substances
Concussion, brain) Contusion)	B	65 n, 69 n, 97 + 13, 68 n, L 69, B		
Connective tissue, weakness	M	96 + 4, 73 + 6, 64		4, 64 r, 19
Constipation in obese pats.		97, 61 n, 26, L 61		61
in asthenics		55 + 71, 61 n + 14, L 61		26, 61
Conunctivitis, chron., recurrent	G, B	37 + 20, 65 n, L 65,B		37, 20
Convulsive diseases (see epileptiform convulsions)	G, A	96 + 23, 11 + 70, 29 + 25, L 61		23, 19, 60
Coronary sclerosis		61 n, 6 + 53, 64 n, 19, L 61, 64 , 69		42, 19
Corneal ulcers	B	65 n, 37 + 70, L 65, B		65, 37
Corpus luteum insufficiency		67, 21, 26 + 14		49, 60
Cor pulmonale	G	61 n, 6 + 2, 69 n, 78 + 55, L 61, 65		62, 44, 42
Cosmetics	NB, NT	64 + 20, 71 + 5		20
Chorio-retinitis	G, B	65, 78 + 52, 26 + 20, L 65, B		65.
Coxarthrosis	F, G	68 n, 96 + 43, 78, 65, L 64, 61		68, 43, 15
Cramp in the calf	M	65 n + 25, 96		60, 19
Cranial trauma		69 n, 97, 65 + 11		15
Cryptorchidism		69 n + 16, 51 + 97, 65 n, L 35, 69		22, 16
Cystitis, recurr. B, G + anti-infect.tr.		65 n, 78 + 55, L 65, B		65, 19, 34
Decubitus	F, A	64 n, 96 + 73, 71 n + 5, L 65, A		64 r, 15
Dementia, arterioscl.		64 n, 97, 61 n + 11, L 64, 35		19, 71, 64 r
Depression		23 + 11, 97, L 64, 35, 69		19

		Dilutions	Lingual	Dry Substances
Detoxication or withdrawal treatment		65 n, 61 n, 97 + 96, L 61, 69		61
Developmental disorders in children (mental, physical)		78 + 11, 64, 69 n, L 69, 64		64 b, 71, 22 a
Diabetes insipidus	A	63 n + 36, 51 + 71, 61 n, L 69, A		36, 24
mellitus	G	67, 14 + 53, 96, L 64, 61		64 r, 14, 26
Diarrhoea		65 n + 55, 61 n, L 65, 61		
Diencephalopathy, focal diseases	B, G + anti-inf.	65 n + 36, 69 n, 97, 61 n, L 61, 69		65
Dental neck, hypersensitivity of	B, Z	10 n, 61 n, 65		
Developmental disorders		69 n, 51 + 71, 30 + 29, 6 + 23, L 64, 69		64, 13, 22 a, 30
Difficulty in hearing		38 + 59, 25 + 97, 6 + 70 local		19, 15
Distemper (in dogs)		65 n, 69 n, L 69		65, 11
Dizziness		69 n, 64 n, 38 + 70		36, 70
in hypertension		6 + 70, 38 + 96		70
in hypotension		51 + 71, 6 + 65 or 20		65, 51, 71, 64 b
in the climacteric		67, 23 + 11		49, 60
in obese patients		51 + 71, 6 + 97		
in asthenics		65, 69 n, 20		
Drug allergy	G	78 + 5, 65 n, 69 n		
Duodenitis	G	65 n + 55, 78 + 73, 61 n, L 65, B		32, 31, 65
Disruption of bacterial flora	G	78 + 55, 65 n, 61 n		65, 45, 47
Dyscholia		65 n, 61 n, 20, L 65, 61		65, 31, 14
Dyspepsia		65 n, 61 n, L 65, 61		61, 14, 53
Dysproteinaemia	G	78 + 6, 76 + 28, 65 + 39, L 65		65, 19, 29
Dystonia, autonomic		65 n, 69 n, 23 + 11, L 65, 69		60, 19 or 17
Dystrophy in infants		65 n, 73 + 20, 64 + 6, L 64, 69		

		Dilutions	Lingual	Dry Substances
Ejaculatio praecox		23 + 17, 65		23
Eczema	M, G, B	78 + 5, 65 n, 61 n, 51 + 71, L 65		20, 65
Emaciation		61 n, 26 + 23, L 61		45, 14, 64 r
Embryopathy	G	during pregnancy, 65		
Emphysema-induced bronchitis	G	61 n, 65 n, 78 + 55 + 2, L 65, B		6
Encephalatrophy	A	97, 64 n + 11, 6 + 70, 61 n, L 64, 69		6, 41, 64 r, 11
Endocrine deficiency symptoms following radical gynaec. surgery	G	17, 36 + 70, 39 + 55, 61 n		17, 60
Enterocolitis	G	65 n, 78 + 55, L 65, B		47, 20
Encephalitis		65, 69 n, L 65, B		
Enuresis, noct.		69, 23 + 11, 63, L 63		63
Encephalomalacia		64 n, 97, 61 n + 11		41, 64 r
Epilepsy Epileptiform convulsions	G, B	23 + 11, 97, 96 + 53, 25 + 21, 73, B		23, 19
Eustachitis	B	65 + 38, 78 + 55, L 65, B		
Extrasystole		6 + 53, 64, 61 n, 69 n, L 61, 69		62, 42
Facial nerve paresis	G, B	65 n, 96 + 70, 25, B		
Fat distribution disorders		65 n + 71, 69 n		19, 71
Fistula, chron. suppuration	G + anti-infect.	73 + 55, 65 n, 61 n, L 65, B		64 b
Focal effects	G, B + anti-infect.	69 n, 65 n, L 65, 69, B		65, 36
Focal provocation	$G\ 10^{-3}$ up to stock solution	(see P. 36)		

		Dilutions	Lingual	Dry Substances
Follow-up treatment after surgery and irradiation	G	65 n, 69 n, 36, L, 69, 65		
Forgetfulness		69 u, 97, 23 + 11, L 69, 64		6
Fractures, slow-healing	G	96 + 43, 65 n, 61 n, 68 n, L 64		96, 64 r, 68
Frigidity		64 + 36, 61 n, 21, L 61		19 or 49, 60
Functional debility		64 n + 6, 69 n, 73 + 11, L 69, 64		19, 64 b
Furunculosis	G - provocative	65 n, 73 + 5, 63 n		65
Gallbladder diseases	G + anti-infect.	65 + 53, 61 n, 26 + 78, L 65, B		61, 53, 32
Gangrene	F, G	64, 51 + 71, 61 n, 63 n + 73		64 b, 61
Gastritis, anacidic hyperacidic	B	65 + 55, 61 n + 20, 51 + 71, L 65 67 + 55, 28 + 26, 73, L 65		61 63, 28, 23
Geriatric indications		64 n + 6, 61 n, 97 + 73, 69 n, L 64, 69, 35		64 r or b
Geriatric debility, infirmity and depression		64 n, 97, 69 n, 61 n		6, 64 r, 19 or 17
Gingivitis	Z, M, G, B	65 n, 78 + 55, 10 n, L 65, B		65
Gout		61 n + 30, 63 n, 73 + 25, L 61, 63		63, 30, 71
Glaucoma	G, B	58 + 70, 52+ 23, 73		46, 63
Goitre	M, G	30 local, 65, 17		23
Granulophthisis	G	65 + 39, 51 + 71, 78, L 65		39, 28

		Dilutions	Lingual	Dry Substances
Hair loss		NT, F	71 + 36 local, 61 n + 25, 17 + 30	5, 15
haemolytic anaemia		S, G, B	65 n + 39, 78 + 70, L 65,B	1, 39, 31
Haematopoeitic lesions		G	65 n, 73 + 39, 51 + 71	64 b, 1, 39
Haemorrhagic diathesis		G, B	L 65 + D 39 + 28, 61 n lingual	
Headaches (see also Migraine)				
Hepato-pancreatitis		G	65 n + 53, 61 n, L 65, 61	61, 63
Hepatitis chron.		B	61 n + 53, 65 n, L 65, 61, 63, B	63, 26
Hepatosis, hepatophaty		G	65 n + 53, 26 + 14, 73 + 20, 61 n, L 61, 65	45, 60
Herpes		M, B	65 n, 5 + 55, L 65, B	
Heart diseases				
myocardosis		G, A	6 + 53, 61 n, 63 n, 64 n, L 65, 61	42, 70, 62
myocarditis	G, B + anti-infect.		65 n, 6 + 70, 73 + 20, 69 n, L 61, 69	
myocardial degeneration		A	64 n + 59, 23 + 61 n, 6 + 70	19, 62, 6
infarct., conditions following		G, B	65 + 6, 61 n, 69, L 61, 65, 69	42, 63, 64 r
decompens.cardiac defects		B	6 + 26, 67 n, 97, L 61, 64, 35	42, 45
rhythm disorders			61 n + 23, 6 + 69 n, L 69, 61	62, 15
Hayfever		G, B	78 + 55, 65 n, 51 + 71, L 65, 69, B	65
Hyperemesis gravid.		G	65 n, 63 n, 23 + 11	
Hyperthyroidism		G	67, 23 + 26, 20 + 17 or 16	17 or 19, 20
Hyperandrogenism			23 + 17, 61 n + 30	26, 23
Hyperfolliculinism			21 + 28, 63 n, 67	60, 49
Hypersensitivity reactions		G, B	65 n, 78 + 55, 61 n, L 65, 69	71
Hypersexuality			23 + gonads of the opposite sex	23, 26
Hypertension		G	70 + 6, 6 + 59, 61 n	64 r, 42
Hypotension			51 + 71, 20 + 6, 69 n, L 65, 69	64 b
Hypophyseal impaired regulation				
insufficiency			22 + 71, 69 n + 36	
hyperfunction			23 + 70, 11 + 97	22 a
Hypothyroidism		G	51 + 71, 30 + 36, 69 n, L 69	71, 22 b, 6

		Dilutions	Lingual	Dry Substances
Immunopathogenic auto-immune diseases	S, G, B	78 + particular organ, 65 n, 51 + 71, L 65		
Impotentia generandi coeundi	G, B	51 + 71, 78 + 16, 69 n, L 35, 69 64 n, 69 n, L 35, 64, 69 + psychotherapy		16
Inability to concentrate	G, A or B	65 + 25, 69 n, L 69, B causal		60
Infantilism		69 + gonads (appropr. sex)		19 or 17
Infarctions and strokes	G, B	65 n + 53, 64 + 59		41, 64 r
Infectious diseases bacterial	B + anti-infect.	65, 61 n + 73, L 65, B		
viral	B	65, L 65, B		
Influenza	B	65, 73 + 39, L 65, B		
Infertility	G	(see P. 53)		16
Intestinal haemorrhage	G	65 n, 78 + 55, 39 + 28, L 65		47, 28, 45
Insomnia		61 n, 97, 64 n, 23 + 11, L 64, 69		42, 64 r
Intermittent claudicatio	G,B	65 n + 73, 96 + 14, 17 + 30, 6 + 59, L 64, 61, 69, 35		42, 17, 15, 41
Intervertebral disc ailments	F	61 n + 43, 68 n, 96		15, 64 b
Iridocyclitis	G, B	65 n, 37 + 20, 78 + 52		20, 65
Irritable bladder	G	63 n, 61 n + 55		19, 34
Kidney diseases	G	65 + 7, 63 n, 61 n, L 63, 65		63
Labyrinthine deafness		38 + 70, 64 + 11, 69 n local		
Liver parenchymal damage	G	65 + 53, 61 n, 23 + 16, 67, L 61, 65		45, 47, 61, 19
acute hepatitis, viral		65 + 6, 78 + 26, L 65, 61		
chron. hepatitis	S, G	65 n, 78 + 26, 61 n + 6, L 65, 61		45, 47, 61

		Dilutions	Lingual	Dry Substances
Liver cirrhosis	G	65 + 53, 26 + 14, 61 n + 55, 78, L 61, 65		61, 26, 19
Lumber spine syndrome		68 n, 96 + 13, 61 n		64 r, 19, 68
Leucopenia		65 n, 73 + 71, 39 + 29, L 65		29, 28, 6
Little's disease	F, A	69 n, 97 + 11, 29 + 23, L 69, 96, 64		64, 29
Leukosis, lymphatic	S	70 i.v., 66 n + 39, 78, L 66, 96		20, 66, 23
myeloid	S	70, 66 n + 29, 73 + 23, L 66		1, 47, 6
Libido, lack of		69 n, 97 + 16, 61 n, L 35		16 or 19
Lumbalgia	F, G, B	68 n, 61 n, 96		68, 64
Lung diseases)	G, B	65 + 2, 6 + 70, 61 n + 55, L 65, B		65, 44
Lung infarction)				
Lupus erythematodes	S, G, B	65 n, 78 + 96, 61 n, 63 n, L 65, 61		20, 71
Lymphadenitis mesenteric of children	B	65 n, 73 + 2, 76, L 65		47
Lymphostasis following irradiation treatment	F	70, 66 n, 23 + 28, L 66		70
Macular degeneration	A	69 n, 78 + 52, 61 n, 67 + 58		64 r
retinal detachment	B	58 + 70, 75, 78 + 52		15
Macroglobulinaemia	G	73 + 6, 39 + 28, 66, L 66		66
Mastodynia)		66 n + 21, 67		49, 66, 56
Mastopathia cystica)				
Melancholia		61 n + 53, 51 + 11, 97, 69 n, L 65, 35		19, 56
Menière's disease	G	38 + 25 local, 97 + 17, B, L 65		15, 61
Meningo-encephalitis	B + anti-infect., G	69 n, 23 + 11, L 69, 65, B, D 65 n		51

	Dilutions	Lingual	Dry Substances
Menstrual disorders	51 + 17 + 11 (-3rd to 14 th day of mentruation)	17	
Mental retardation	69 n, 97 + 73, 64 n, L 69, 64	64 b, 11	
Meteorism	65 + 53, 61 n + 14, L 65, 61	61, 14	
Migraine G	69 n, 61 n + 6, 25 + 65, L 69, B	60, 46	
Malformation, prophylaxis of G			
Mobilization blockade of bone marrow G, B	65 + 39, 51 + 71, 20 + 30, L 65, 61	1, 39, 8	
Mongolism	51 + 71, 29 + 30, 97 + 6, L 69, 64	before concept, 17, 64 b, 71, 11	
Multiple sclerosis B, G	96 + 23, 97 + 78, 65 + 13, L 69, 61, B		
Muscular dystrophy B	96 + 6, 64 + 23, L 96, 64	64 r	
Myasthenia gravis G	96 + 6, 3 + 51, 67 + 23	64 r, 3	
Myoma	67, 66, L 61	19	
Nausea, travel sickness	97, 65, L 69, 61 , B		
Nerve root, symptoms due to irritation of G	69 n + 23, 96, 68 n		
Neuralgia, symptoms of M, G, B	96, 65, 69 n, L 69, B	65	
Neuritis Autonomic disorders G	65 n, 61 n + 53, 69, L 69	65	
Neurodermatitis M, G, B	65 n + 5, 78 + 55, 61 n, L 65	20	
Nephritis, acute G	78, 63 n, 65 n, L 63		
chron. B, G	63 n, 65 + 7, 61 n, L 65, 63, B	63	
Nephrosis G	7 + 78, 65 n, 6, L 63	42, 63, 27	
Nephrosclerosis G	64 + 70, 63 n, 23 + 26, L 63	64 b, 27	

	Dilutions	Lingual	Dry Substances
Nephrolithiasis pyelonephritis G + anti-infect.	63 n, 61 n, L 63 65 + 55, 63, 69 n, L 63, 61		42 42, 45
Noise in the ears	38 + 25, 97, 67 + 23, L 69		19
Nystagmus - causal treatment G, A	38 + 97, 64 n, 6 + 11, L 69		15
Oligospermia G	61 n, 69 n + 51, 6 + 16, L 35, 69		16, 61, 50
Organ neurosis	65 + particular organ, 69 n, L 69, 65		19
Osteochondrosis	68 n, 29 + 23, 43 + 61 n, L 64		71, 68, 64 r
Osteomyelitis G + anti-infect., B	65 + 39, 73 + 20, L 65		64 b
Osteoporosis G	43 + 96, 68 n + 29, 23 + 6, L 64		19, 61
Ovarian dysfunction	51 + 71, 69 n, 17 or 21, L 69		49 or 17
Paradentosis, paradentopathy dental hygiene Z, G	10 n, 78 + 55, 51		64 r, 10
Paralysis, bulbar G	97, 64 n + 11, 78 + 23, L 69, 64		11
Paralysis, spastic flacoid	97 + 11, 23 + 96, 61 n 96 + 13, 68 n, L 69		23, 11, 15 64 r, 19, 15
Pancreopathy S, G, B	61 n + 14, 65 n + 53, 78, L 61, 65		61, 14
Paresis (see Paralysis)			
Parkinson's disease, parkinsonism	97, 69 n + 54, L 64, 69		64 r, 15, 11
Pemphigus vulg. S, G, B	65 + 5, 78 + 71, 69 n + 51		20
Periarthritis humeroscapular M, G	64 + 43, 96 + 36, 68 n, L 64		68
Perthes' disease	96 + 43, 68 n + 29, 23 + 61 n, L 64		64 r, 68
Phantom-limb pain	65 n, 96 + 39, 69 n, L 69		64 r, 43

	Dilutions	Lingual	Dry Substances
Phlebitis (see Thrombophlebitis)			
Pluriglandular malfunction	65 + 51, 71 + 36, 69 n, L 69		64 r, 15
Polycythaemia	78 + 29, 14 + 28, 23, L 66		64 b, 22 a
Poliomyelitis, sequelae	B, G 65 n, 69 n + 13, 78 + 23		15
Porphyria	65 n, 61 n, 78 + 6, L 61, 65		61, 26
Post-apoplectic paralysis	G 97 + 54, 61 n, 64 + 6, L 69, 64		11, 15, 41
Post-surgical complaints	G 65 n, 69 n, 61 n, L 69		6, 61
Prostatitis	B+ anti-infect., G 65 n + 16, 69 n + 35, L 69, 35		6, 16, 35
Prostatic hypertrophy	16, 35, 64, L 35, 69, 63		16, 35, 61, 63
Prurigo, pruritis	G, F 61 n, 23 + 70, 17 + 30, L 69, 67		61, 49
Psoriasis (desquamative ointment), arthropatica(desquamative ointment),	G, G 96 + 70, 66 n + 28, 78 + 5, 68 n		66, 70, 19
Psychosis	97 + 23, 61 n		49 or 17
Puberty, disorders of	69 n + 71, 16		19 or 17
Pulpitic irritation, signs of	10 n local, 65		
Purpura	G L 65 + D 39 + 28, D 61 n		
Pyelonephritis (see Kidney diseases)			
Pyometra surgery (in dogs)	63 n, 51 + 70, L 63		63
Radiation, adverse effects of	66n, 70, 55 + 39		70
Raynaud's disease	G 65 n + 59, 61 n + 16, 20 + 28, 67		49
Retention of urine	35 + 16, 36 + 55, 63 n, L 63, 35		19
Rheumatic fever	M, S, G, B 78 + 43, 65 n, 68 n, L 65, 69, B		20, 60, 19
Rearing children, difficulties in	64 n + 23, 69 n		64 b

	Dilutions	Lingual	Dry Substances
Resistance to infections, reduced	65, 6 + 69 n, 66		64 b, 66
Retinitis, poor vision) Renital degeneration)	A, B 65 n, 78 + 58, 69 n, L 65		
Rheumatism (see Rheumatic fever)			
Rhinitis	B 65 n + 55, 69 n, L 65, B		
Rosacea	65, 61 n + 55, 28 + 5, 20 + 30		65, 20, 22 a
Rhythm, disorders of	11 + 23, 6 + 69 n, L 61		6
Schizophrenia	G 23 + 11, 97, 61 n, 78		70, 23
Shoulder-arm syndrome	M, G 68 n, 96, 65 + 13, L 64		68
Sweating (hyperhydrosis)	G 67 + 5, 23 + 36, etiologically L 65		
Sinusitis, chron.	G, B + anti-infect. 65 + 55, 69 n, B, L 65		65
Scleroderma	NT, H, S, G 78 + 5, 51 + 71, 69 n, 61 n, 96, L 65, 61		20, 60
Somnolence (see Encephalatrophy)	69 n, 61 n, 51 + 71, L 69, B		64 b, 36
Splenomegaly	S, G, B 65 n, 78 + 28, 39 + 20, aetiol. B		45, 20
Speech disorders in children	97, 69 n, 11 + 71, L 69		15, 11
Spinal syndrome	68 n, 69 n, 96 + 43		64 r, 68
Spondylosis	M, G 68 n, 96 + 43, 61 n		96, 68
Spring catarrh	G, B 78 + 55, 65 n, 69 n, L 65, B		65
Status thymo-lymphaticus	G 65 n, 78 + 51		22 a, 51, 20
Sterility	G 65 n, 69, 67		17
Sudeck's atrophy	F, G 96 + 43, 97, 68 n		64 r
Systemic CNS disease	G, B 97, 69 n, 65 + 11 or 13, 78, L 69		20

		Dilutions	Lingual	Dry Substances
Tendopathy	F, G	96 + 43, 68 n, 3 + 70		64 r, 68
Tetanus, parathyroprival	G	65 + 25, 78 + 30, 51 + 71		25, 71, 60 or 19
Tetanus, normocalcaemic		69 n, 65 n, 20		64 b, 19, 60
Thirst syndrome in children		51 + 71, 69 n, L 69		24
Thromboangiitis obliterans	M, G anti-infect.	65 n + 59, 78, 66 n, L 65, 61		45, 66
Thrombocytopenic	G	L 65 + D 39 + 28, D 78 + 29, L 65, 61		28
Thrombophlebitis) Thrombosis)	+ anti-infect., M,G	65 n, 78 + 59, 66 n, L 66, 65		66, 28
Thyrotoxicosis	G, B	67, 23 + 26, 29 + 17 or 16, L 61, B		17 or 19, 20
Tonsillitis, chron.	B	65 n + 55, 78 + 29, L 65		71
Tooth extraction, pain following	G	10 n, 69 n		
Tumours	S	70 i.v., 66n, 23 + 26, organospecific L 66		19, 66, 47, 1 every 4-6 weeks
Ulcer, leg	M or F, G	64 n, 73, local 71		15
Ulcer, duodenal) Ulcer, gastric)	G, B	65 n + 55, 69 n + 25, 61 n, L 65, B		65, 31, 32
Uraemia	G	63 n, 61 n, 7 + 78		71, 20
Urticaria, chron.	B, G	65 n, 78 + 5, 61 n, 69 n, L 69		45, 41, 15
Vaccination reactions	B	65 n, 69 n, 73 + 23, L 65		
Varices	M, G	65 n, 61 n, 96 + 59, L 65		28
Vascular diseases	A	64 + 59, 63 n + 6, 53 + 14, L 64		15, 41, 64 r

Own results:

		Dilutions	Lingual	Dry Substances
Visual disorders	G	69 n, 58 + 70, 52 + 97 aetiol.		20
Vomiting, cerebral		65 n, 69 n, 61 n, B		
Virilism	F	69 n + 17		18, 71
Virus diseases		65 n, 55 + 6, 61 n		
Whooping cough	G, B	65 n + 2, 78 + 55		47, 44
Wounds, torpid	M, G	96 + 5, 64 + 71, local L 64		64 b
Xanthomatosis		30 + 17, 65 n + 71, 61 n		61
X-ray and radiation injuries		64 n, 70, 66, L 66		70