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**ANTIHOMOTOXIC MEDICINE AND
GROUND REGULATION SYSTEM (GRS)**

- IMMUNOLOGICAL BYSTANDER REACTION -

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HOW TO UNDERSTAND ANTIHOMOTOXIC MEDICINE?

Antihomotoxic medicine is a regulatory therapy, the central term of which is the theory of homotoxins. Homotoxins are all substances which are harmful to the human organism, irrespective of their origin. Each disease therefore constitutes an alteration between the individual and homotoxins. They endanger the unstable system (homeostasis) within the organism. Herein, phase-like states may be observed which are oriented around a so-called biological cut. (In this area, stimulation of self-defense is still possible. Half of the overall energy available, however, is already lost.) On one side of this cut are the inflammatory and rather humoral processes, beyond are the cell-related degenerative ones. As in all other unstable systems, phase-like transitions play a decisive role in this context. It is generally known that, for therapy of chronic diseases, an inflammatory phase must be induced; otherwise, regressive vicariation, i.e. healing tendency, is impossible. Inflammations themselves must be taken to excretory phases and so on. Conversely, a progressive vicariation, i.e. a progression towards degeneration is always possible.

This may be compared to heaping up a sand pile: From a certain amount of discharge onwards, sand avalanches will be triggered until the pile reaches a certain level of order. If this is not feasible, dislocation will be so pronounced that a typical conical mountain configuration is no longer evident.

The example of the heaped-up sand pile may serve to explain procedures in antihomotoxic therapies in contrast to traditional medicine and classic homeopathy. Traditional medicine is like a mountaineer who scales a mountain in order to study and possibly prevent threatening avalanches. This involves measurements in the terrain, diagnosis and as a consequence the development of a causal, locally efficient therapy. Meanwhile, however, further avalanches may develop at other places, invisible to the mountaineer.

Consequently, he must climb very quickly with his diagnostic and therapeutic equipment and in doing so may even trigger off avalanches himself (s. side effects).

A homeopath has a different approach: he observes the unstable mountain as a whole from some distance and compares it to the pictures of numerous other mountains and to the means already discovered of stabilizing them. If he finds a similar picture, he has a global approach to stabilize conditions observed on this particular mountain.

The homotoxicologist will also climb up in order to diagnose conditions locally, but he will return again and again in order not to lose sight of the overall view. In doing so he compares conditions with other mountains, like the homeopath, and then, out of local diagnosis and the similarity of the overall view, he will prepare a sand mixture which, applied to the mountain, will stabilize the local terrain as well as the whole mountain. This also explains why antihomotoxic medicine applies potentiated substances in combination and related to indication.

GROUND REGULATION SYSTEM (GRS)

Each cell needs a favourable environment in order to live. This is determined by the surrounding extracellular space. A cell or cell populations must therefore not be considered isolated from their environment.

The extracellular space is placed by the matrix (basic substance) in between terminal vessels (capillaries), lymphatic vessels and the cells to be supplied and released, with the function of a molecular screen .

The matrix mainly consists of highly polymerized sugars which in part are bound to proteins (proteoglycans and glycosaminoglycans, PG/GAGs) (fig. 1).

Absorbed into the sugar network are structural and meshing glycoproteins (collagen, elastin, fibronectin, and others). This provides high stability and elasticity for the matrix, in addition to its molecular sieve effect.

Since PG/GAGs have negative electrical charges, they are capable of water binding and ion exchange and thereby influence all processes in the extracellular space. Vegetative nerve fibers end blindly in the matrix; it is therefore directly connected to the central nervous system (CNS). The matrix is moreover permeated by terminal vessels, and thus connected to the endocrine system (e.g. hypophysis, thyroid gland, adrenal gland and so on). The CNS and the endocrine system are interconnected in the brain stem. Therefore, they influence each other and, via feedback, the matrix as well.

The metabolic centre of the matrix is the fibroblast (the connective tissue cell), which reacts to all incoming information (hormones, neurotransmitters, metabolites, catabolites, pH alterations etc.) with an appropriate synthesis of matrix components. The fibroblast hereby does not differentiate between good and bad information.

If "false" information (e.g. stress) is fed into the matrix for too long, adaptation processes will develop, with a seesaw effect of false information accumulating in the organism.

Defense cells as guardians of the matrix must not be overlooked in this context. They are able to neutralize heterogenous substances (antigens and homotoxins respectively) unspecifically and quickly via macrophages/monocytes and neutrophilic granulocytes.

Permanently involved in all this is the specific defense system (T and B lymphocytes), which is able to learn, has a long-term memory, and is immediately activated if an antigen (homotoxin) recognized earlier reappears.

PHASES THEORY ACCORDING TO RECKEWEG

Within the matrix region, the decision is made whether a disease becomes manifest and possibly proceeds to a degenerative phase (cellular phase) (progressive vicariation), or whether it proceeds to an inflammation phase and a subsequent excretion phase (humoral phase) and may therefore be overcome (regressive vicariation). Consequently, the matrix phase of a disease (with deposition and impregnation of homotoxins) marks a biological cut between regressive and progressive vicariation. The objective of antihomotoxic medicine is therefore to restore diseases back to the humoral phases (regressive vicariation).

ANTIHOMEOTOXIC THERAPY AND IMMUNOLOGICAL BYSTANDER REACTION

In the deposition and impregnation phases, a variety of inflammation mediators develops locally and systemically, due to the influx of antigens (homotoxins). If the body's self-healing powers cannot cope with the situation, an immunological bystander reaction may be stimulated with antihomotoxic therapeutics (fig. 2).

Antihomotoxic preparations are particularly well-suited for this purpose, since on the basis of their contents of potentized vegetative and/or animal proteins in the range of D1 to D14 they are able to trigger an immunological bystander reaction. (The other added potentized substances are capable of stimulating the GRS). Only in the above-mentioned potentiation ranges regulatory lymphocyte clones (Th3 cells) can develop (1, 2).

Where an antihomotoxic agent with low-to-medium potentized vegetative and/or animal proteins (e.g. compounds, suis organ preparations, nosodes, homaccords) is introduced into the body, patrolling macrophages will phagocytize a certain percentage and digest it almost completely lysosomally (fig. 2).

The residues are transported back to the macrophage surface in the form of short amino acid chains (ca. 5-15 amino acids) "motifs". These are bound to the membrane-related MHC complexes (histocompatibility antigens). Due to this binding, the motifs are recognized by passing T lymphocytes, taken away from the macrophages, and bound to receptors of their own. This is the signal for transformation into regulatory lymphocytes (Th3 cells) (2). The Th3 cells wander into the regional lymph nodes on the shortest possible route and via cell division multiply to "motivated" cell clones (fig. 2). They leave the lymph nodes via the blood vessels and through microcirculation reach all organs and tissues (2, 3).

Where organ- or tissue-related potentized substances (nosodes or e.g. collagen of a suis organ preparation) are added to the antihomotoxic preparation, or are administered additionally, an increased penetration of Th3 cells into the relevant area is facilitated by the indicated motifs. Organo- and histotropy is supported by chemotactic factors from the inflammation area (especially lymphocyte-tactic chemokines) (4).

Recognition between regulatory and phlogistic lymphocytes follows a molecular-biological simile principle, i.e. the similarity between motif and cell-membrane-bound antigen or epitope (2, 3).

As soon as such a similarity between the above-mentioned cell types is confirmed (a close proximity of different cell types suffices), the Th3 cells immediately start with the synthesis of the highly antiphlogistic cytokine TGF- β (transforming growth factor beta) (fig. 2) (3, 4).

Simultaneously, interleukin-4 and -10 is released from Th2 cells, which supports the effect of TGF- β . This means that antihomotoxic therapy is capable of regressively retransforming the fibrolytic-phlogistically disturbed tissue into an equilibrium of fibrogenesis and fibrolysis. (2, 3).

Inflammatory processes may thus be stopped; and even in non-inflammatory tissue disorders (e.g. dizziness, certain stages of arthrosis), Th3 lymphocytes may be motivated via the immunological bystander reaction in such a way that in a coordinated action with Th1, Th2- and Th3 lymphocytes they may regulate a disturbed balance between fibrogenesis and fibrolysis.

IT SHOULD BE NOTED THAT THE IMMUNOLOGICAL BYSTANDER REACTION CONSTITUTES A CLOSED EFFECTIVE PRINCIPLE IN ANTIHOMOTOXIC MEDICINE, IN CONTRAST TO ALL OTHER MODES OF THERAPY.

LITERATURE

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GLOSSARY

<i>immunological bystander reaction</i>	= support of body resistance by homeopathic combination preparations (antihomotoxica)
<i>terminal vessels</i>	= finest blood vessels for metabolic purposes. The blood flow rich in oxygen smoothly switches over to venous blood
<i>inflammation mediators</i>	= mainly molecules released by defense cells, capable of causing inflammation
<i>humoral</i>	= derived from humores (lat. "juices")
<i>low-dose antigen effect</i>	= related to immunological bystander reaction. Only potentiated vegetative and animal substances can trigger the effects known in antihomotoxic medicine
<i>milieu/environment</i>	= structured and regulated extracellular space (basic substance matrix)
<i>neurotransmitters</i>	= molecules which can transmit an excitation passed on by a nerve fiber (information) to other nerve fibers, cells, or muscle fibers (e.g. adrenaline, acetylcholine)
<i>protein sequences</i>	= Proteins are composed of amino acids. The succession of amino acids of a protein is called sequence.
<i>sugars, highly polymer</i>	subgroup of hydrocarbon compounds. Simple sugars contain carbon and water at a ratio of 1:1. The most relevant sugars are hexoses and pentoses (i.e. with 6 and 5 carbon atoms respectively). Most frequent are derivatives of hexoses; single ones of them may combine to chains (polymers) (ground substance)

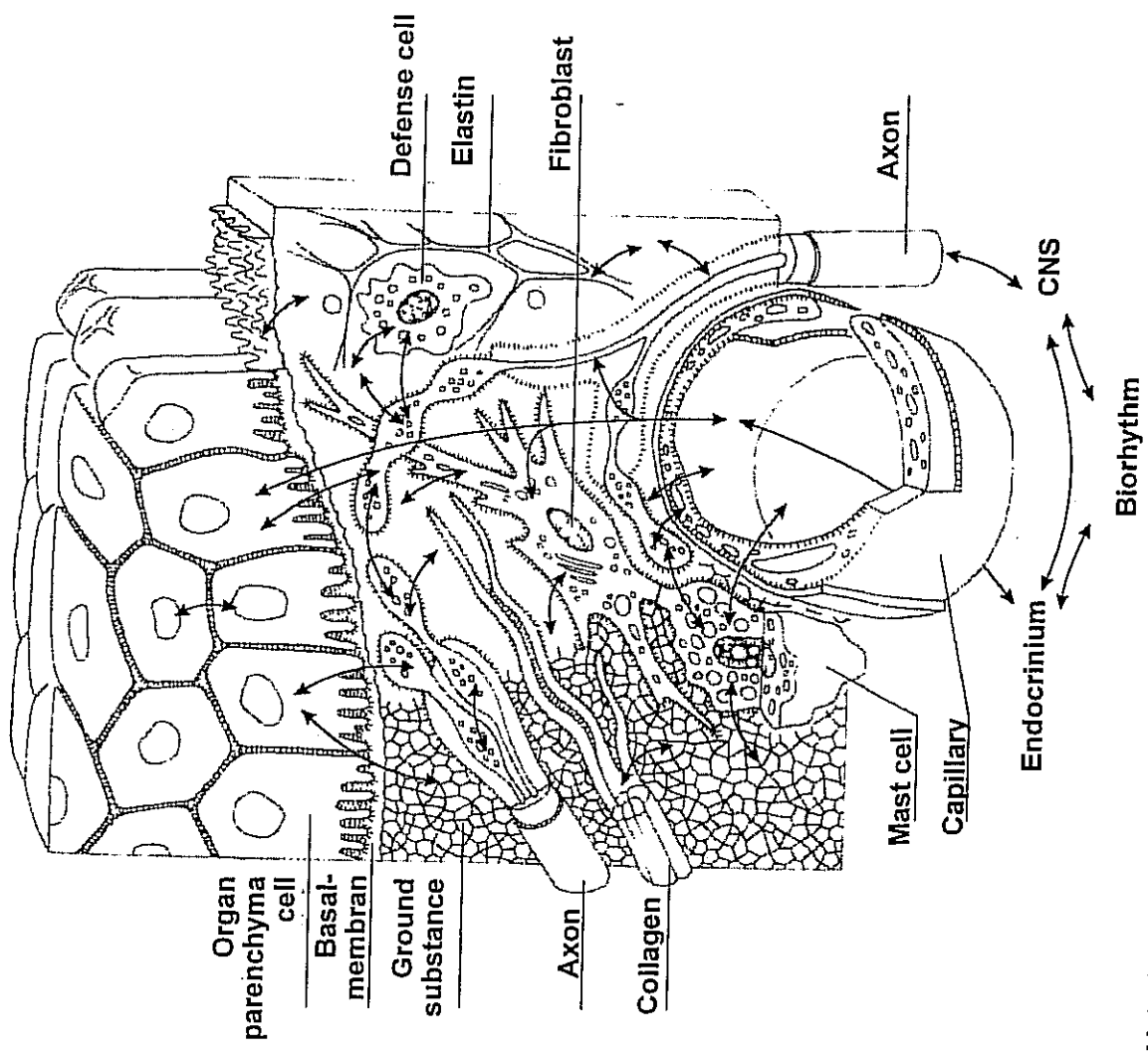


Fig. 1: Ground Regulation System (GRS). Mutual relationships (arrows) between terminal vegetative axons, connective tissue cells (mast cells, defense cells, fibroblasts etc.) and organ parenchyma cells. Epithelial and endothelial cell populations are supported by underlying basal membrane, as a mediator to the basic substance. Each cell surface has a glycoprotein and glycolipid film (dotted line) connected to the basic substance, including also histocompatibility complexes and cell-membranous receptors. The basic substance is connected to the endocrine system via terminal vessels, and to the CNS via axons. The fibroblast constitutes the metabolic centre.

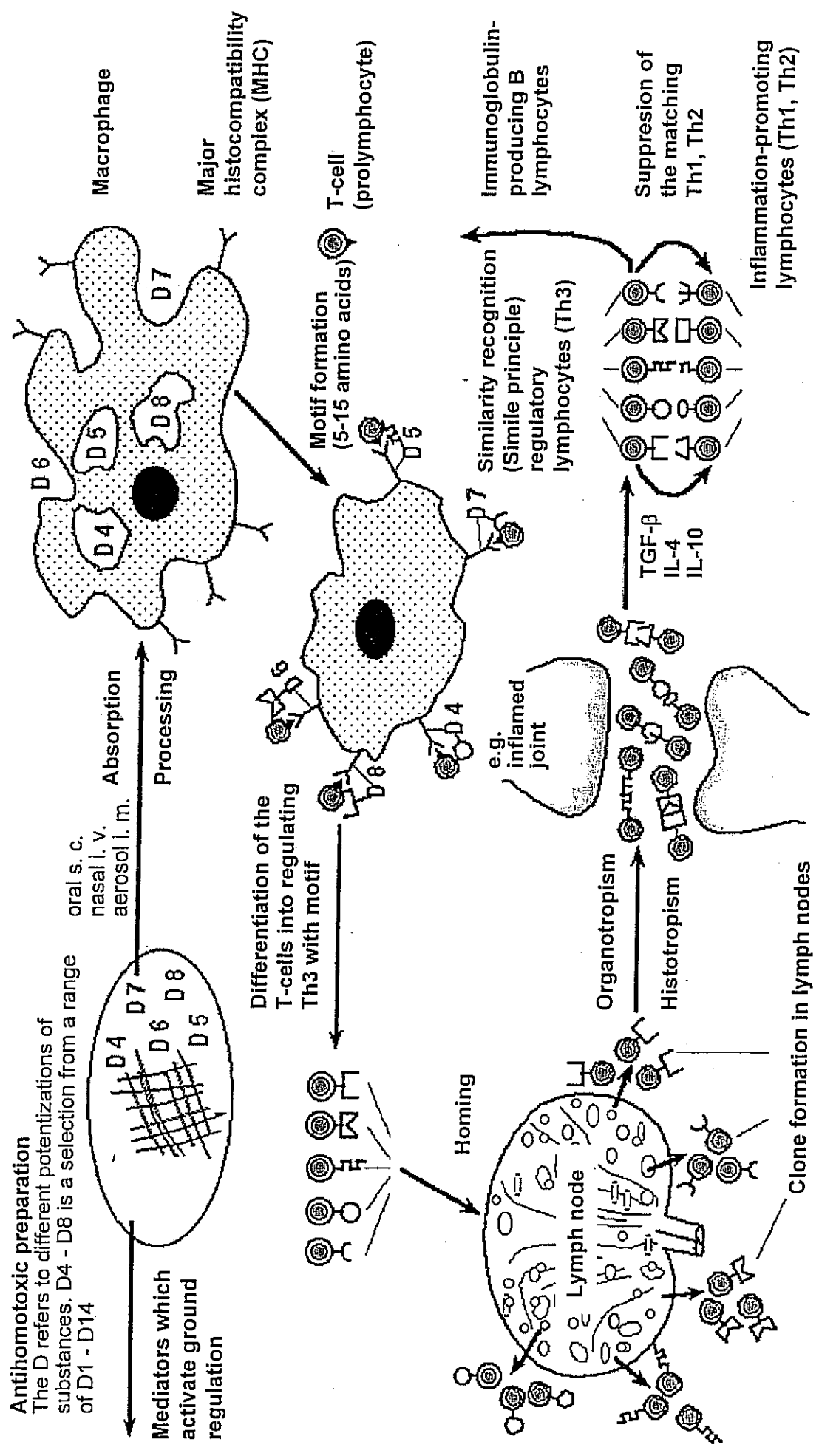


Fig. 2: Immunological bystander reaction as the dominant effective principle in anti-helminthic medicine. A D1-D14 of an anti-helminthic preparation contains sufficient substance amounts in order to stimulate macrophages for antigenic motif generation after application (line on top). This is a precondition for the generation of regulatory lymphocytes (Th3) (line in the middle). By way of chemotaxis, Th3 cells find phlogistic lymphocytes (Th4, Th1, Th2) with similar antigenic motifs and neutralize them by release of TGF-β (line below).