

Specific Organotropic Treatment for Cancer Patients

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"Organotropism" in medicine

Organotropism means approximately "addressing the organ," an approach that may seem primitive in a holistic treatment designed to consider the individual and his disease at their many levels. Yet the way a human being relates to his organs (Greek *organon* = tool, instrument) is important. Walther Buehler spoke of the "body as instrument of the soul" in this context. On earth, human beings live in and through their organs, influencing them. The negative aspect of this is reflected in the pathogenesis of myocardial infarction, for instance, where lifestyle and inner attitudes are major factors. The diseased organ - in this case the heart - may, in turn, profoundly influence the whole human being, in this particular case precipitating him into mortal fear and a feeling of perdition.

However, we are also able to let healing impulses actively influence our organs - something we know from eurythmy therapy, for instance. The effect of medical treatment of an organ - the liver, for example, with certain types of depression - can also change the whole configuration of a person, who may enter into a new relationship with the world and be able to relate to it more independently than prior to treatment.

It is evident, therefore, that organotropic treatment may be part of the comprehensive approach to treatment that is an indispensable part of anthroposophical medicine. The range of possibilities is large, extending from art therapies to medical treatment. Below, emphasis will be on the latter, above all on treatment with potentized "organ preparations."

"Organotropism" of cancer

Some fundamental aspects of the organ-relatedness of cancers - what determines a tumor's "choice of organ"?

Organs subject to chronic damage, their vitality reduced, are often the target, examples being the bronchogenic carcinoma of smokers, hepatocellular carcinoma following chronic hepatitis or alcohol abuse, and basal cell carcinoma due to excessive exposure to light. The relationship is important because organ preparations can "fortify" the organ.

Organs that are not properly "taken hold of" by the human being are clearly at risk from cancer. This may explain why women who have not been breast feeding are at relatively high risk from breast cancer and why the risk of malignancy is up to 20 times higher in cryptorchid (and therefore non-functioning) testes and why the risk of cancer of the prostate increases with old age.

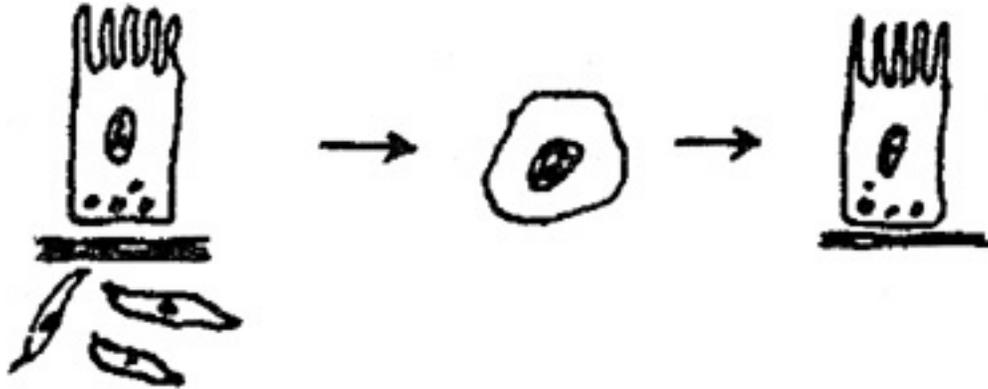


Fig. 1. Diagrammatic presentation of an enterocyte.

a) Polarization of cell with ciliary border in the organism;

b) isolated cells in cell cultures dedifferentiate;

c) redifferentiation to restore physiological form on provision of a basal membrane in the cell culture.

Finally, and with due reservation, we may speak of a "personal" choice of organ. This emerged when Friedwart Husemann spoke of a patient who told him she had developed cancer of the bladder "to learn humility," as she put it. Recently, a car mechanic who had had several operations for tumors of the larynx told me he saw his illness as a physical reflection of his "speechlessness." At the time, I felt it was a little superficial, but now that I know the patient and his history I think he may well have been right.

A mysterious organotropism may also be seen behind preferred sites for secondary tumors. There often is no explanation in purely mechanical terms, but perhaps functionally and developmentally. How else could we explain why malignant melanoma of the skin mainly produces metastases in the brain and malignant melanoma of the choroid in the liver?

(Un)relatedness of tumor and organ

If we consider the relationship a cancer cell or a tumor - undoubtedly the late outcome of a disease that has gone through long "preliminary stages" - has to its surroundings, some definite signatures emerge.

An histological characteristic of malignant tumors is said to be the high level of mitosis, in line with a generally high rate of cell metabolism. This kind of active cell proliferation is also seen with tissue regeneration after injury, removal of part of the liver, etc.; but in that case growth ceases once the original form has been restored. Lateral cell contacts may inhibit growth, but it seems that an invisible border is set at the upper surface, with the vitality of the individual cell subordinate to that invisible, overall form principle. Dividing cells clearly perceive such form limits physiologically and stay within them.

Particular importance appears to attach to the relationship between epithelium (which gives rise to malignant tumors) and connective tissue. Thus, a carcinoma *in situ*, primarily presenting relatively little danger, must be distinguished from invasive carcinoma, which is capable of producing metastases and has broken through the basal membrane of mesenchymal connective tissue. Thus, differentiation of "benign" adenoma and "malignant" follicular carcinoma of the thyroid is only possibly by demonstrating that the tumor has broken through the basal membranes of the vessels and penetrated into the lumen.(1)

Even a "healthy" epithelial cell changes on removal from its normal context in the organism. It dedifferentiates, losing its polarization between functionally and morphologically apical and basal poles, which makes it very similar to a cancer cell. Placed on a connective tissue basal membrane, it regains its original form (Fig. 1).

Form-giving impulses clearly arise from an "amorphous element" that is outwardly unformed. When a tumor develops these impulses are no longer "perceived" or they no longer come in the right way from connective tissue. Both are probably the case. We know that lectins, glycoproteins that specifically react with sugar structures, are often missing on the surface of tumor cells so that the form-mediating effects of the sugars (viz. blood group factors) no longer take effect. Conversely, certain tumor cells may be made to re-differentiate by exhibition of polysaccharide chains normally found in their environment,(2) which suggests that the tumor environment had no longer provided them.

In recent years, it has been realized that the connective tissue matrix (*mater* points to the "maternal" aspect of being thus differentiated and supplied with nutrition from the environment) contains numerous materially-identifiable "factors" (growth factors, cytokines, etc.) that play a role in mediating configuration. It is interesting to note that form is always created from the periphery. Last year, Dr. Nuesslein-Vollhardt received the Nobel Prize for her work, in which she demonstrated that configuration and polarization are present, though invisible, even in the ovum. In this case, it is the maternal organism initiating differentiation on the cell surface, just as in tissue there has to be "someone" to make the right factor take effect in a particular site at the right moment.

Asking who this "someone" might be, we are referred to the genome. It is true that known factors are at least indirectly produced through activities of the related genes. The question is, who activates them at the right time and in the right place? The genome of a liver cell is, after all, the same as that of a corneal cell. We are told "regulator genes" are responsible, along with "local factors" that determine gene regulation. This begins to feel like a vicious circle.

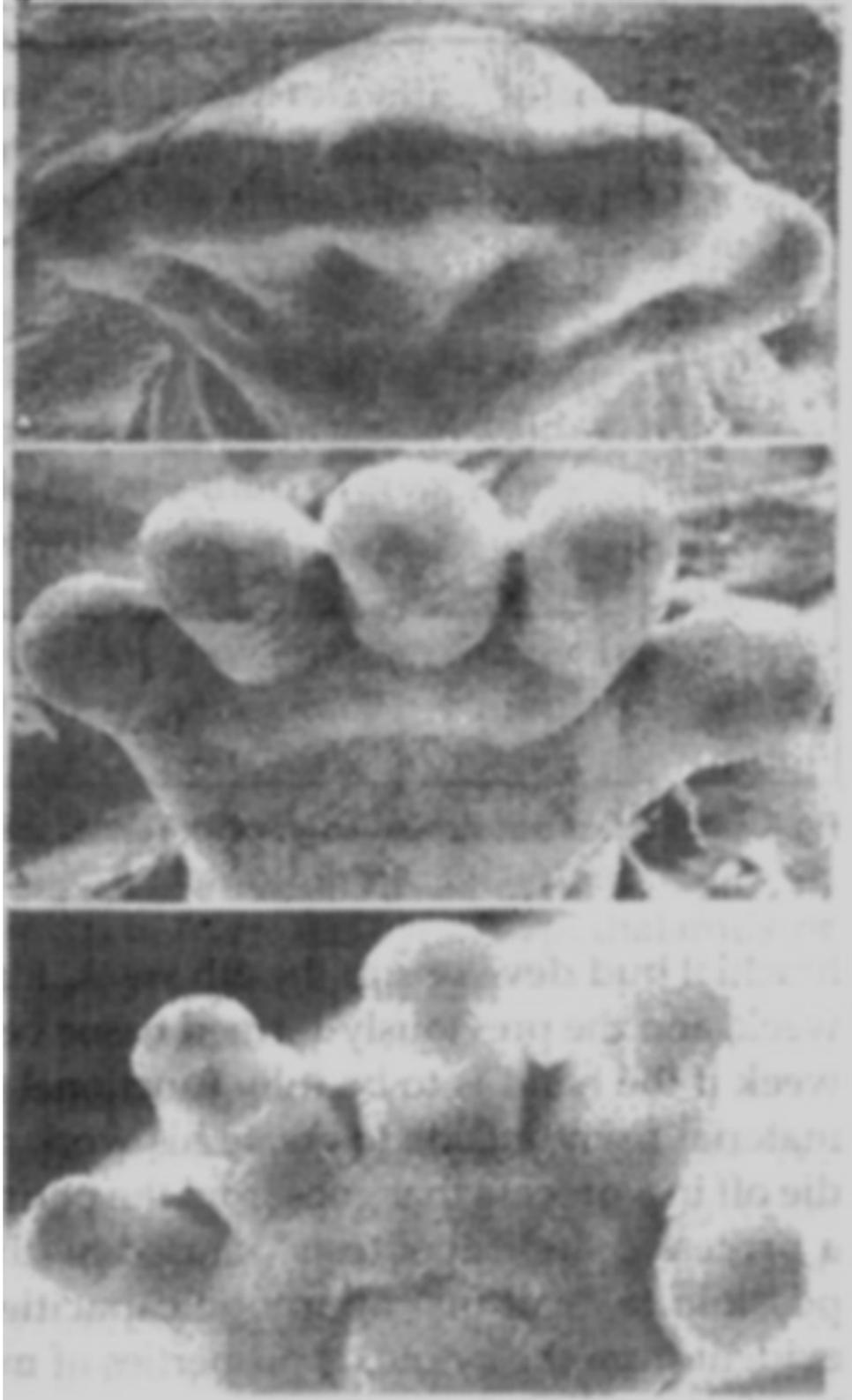


Fig. 2. Scanning electron micrographs of human hand at Carnegie stage 19 (week 7), 21 and 23 (week 8).(5)

Something Rudolf Steiner said in Torquay in 1924 may provide the answer:

The world is always spiritual and physical, wherever we meet it, and nothing exists in the physical world that does not in some way or other have a spiritual principle as the real agent behind it.(3)

One way of putting it would be to say that in a carcinoma, cell life that has grown independent withdraws from the control of the spiritual principle, having grown deaf, as it were, to its influences. An area then develops in the organism that has become alien, subject to its own laws. The immune system's function of eliminating areas of foreign life has failed when cancer becomes manifest. This is another precondition for tumor development. Characteristically, immunosuppressants and congenital and acquired immune deficiencies, e.g. AIDS, greatly increase the risk of developing a malignant tumor. More than this, a tumor cell has numerous "escape mechanisms" to camouflage itself(4) so that the organism becomes "blind" to the tumor, and the ordering function of the immune system is prevented.

The aim of treatment must therefore be on one hand to help the affected organic region to make connection with healthy form principles again as well as to strengthen the organism's ability to dissolve abnormal structures.

Organogenesis reflecting form-giving principles

Organ-configuring processes are particularly evident in embryogenesis, when specific organs arise from a material basis of undifferentiated cells. The human hand is such an organ (tool) par excellence. An undifferentiated brachial bud develops in the 4th week. Finger rays become visible in the 7th week, and the previously-formed tissue between them must perish by the 8th week if the hand is to be fully functional (Fig. 2). Just as a sculptor removes material from outside to create his work of art, so the hand emerges as cells die off in a process that goes from the periphery inwards. The cells dissolve in a process called "apoptosis" caused by their own lysosomal enzymes.(5) It is possible to "call on" apoptotic capacities in the case of tumor cells as is evident from the cytotoxic properties of mistletoe given locally in high doses to effect cytolysis.(6)

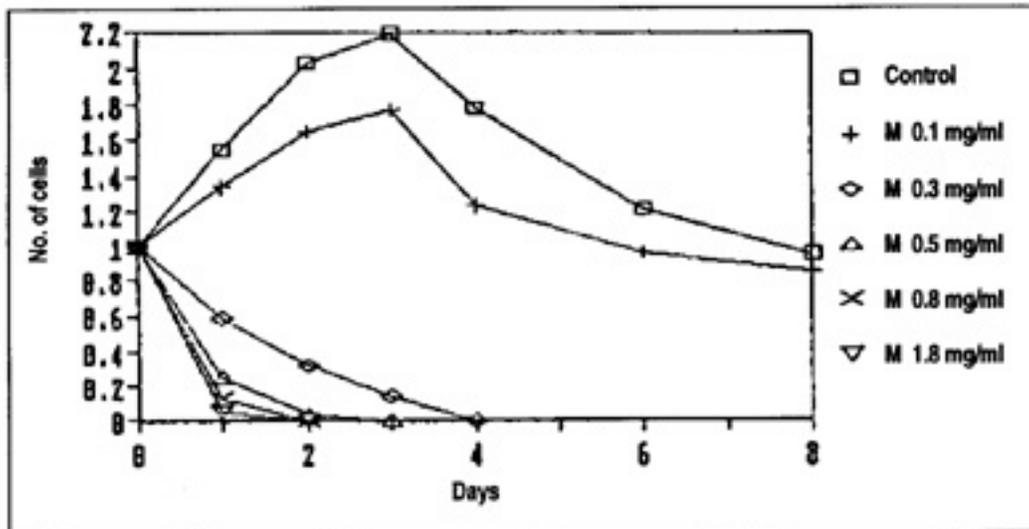


Fig. 3. Effect of fetal mesenchyme on growth of Yoshida ascites sarcoma cells (18 million in 18 ml) in vitro.¹¹

Fig. 3. Effect of fetal mesenchyme on growth of Yoshida ascites sarcoma cells (18 million in 18 ml) in vitro. (11)

In conclusion, modern embryology "in recent years" has recognized the "growing importance of cell migration, differentiation and morphogenesis" in "the ground substance of embryonic connective tissue, now generally referred to as the 'extracellular matrix' (ECM)."(7) It is this apparently inert substance which H. H. Vogel,(8) following Fromme(9) and Pischinger,(10) had for a long time considered to play an important role in the development of healthy configuration on one hand and cancer on the other.

Effect of organ preparations on tumor cells

The question arises if we can connect with this world of healthy configuration for clinical purposes when it has been lost in tumor development. Recent years have yielded remarkable studies on the subject, mostly based on experimental cell cultures. These are, of course, artifacts with limited applicability in humans and relevance to only one aspect of the human being. They are nevertheless interesting.

Konrad et al. found that addition of lyophilysates of different organs to cultivated Yoshida sarcoma cells inhibited proliferation or even caused cytolysis of the malignant cells. Fetal mesenchyme proved particularly effective, causing rapid cytolysis of the tumor cells in 0.3 mg/ml concentration (Fig. 3).(11)

Bombik et al. incubated human HL-60-promyelocyte leukemia cells with mesenchyme lyophilysates, which resulted in cytolysis, with surviving cells entering into sequential differentiation.(12) With leukemia, it seems that differentiation is blocked, inhibiting cell maturation at an early level so that the bone marrow is swamped with immature precursors. Addition of mesenchyme appears to remove the block, for one-third of surviving cells matured into cells with stab and even segmented nuclei.

Experiments by Gash et al. are interesting. They treated cell cultures of human neuroblastoma with lyophilysates of fetal cerebellar tissue from another species. Exposure

to 0.001-0.1 mg of extract per ml of culture medium resulted in inhibition of tumor cell growth or cytolysis. Cell differentiation was also noted, with dendrites and even synaptic links developing. The work was reproducible under blinded conditions. Remarkably, the effects could not be triggered with extracts from the liver, hypothalamus or cerebrum, which suggests a high degree of topical specificity.(13)

History and concept of using organ preparations

Other in vitro and animal experiments have given comparable results. We note that exhibition of preparations made from homologous fetal or juvenile organs or of mesenchyme can bring ordering functions similar to those involved in the configuration of physical organs into play in tumor cells. This may substantiate the ancient view that a medicament made from a vital animal organ "supports" the ordering functions of a homologous human organ or confers its "powers" on it. Many primitive peoples have the custom of eating the organs in which a numinous "power" is at its highest, e.g. heart or brain, immediately after they have killed an animal, which is much the same idea. Passages may be found in the works of Paracelsus that refer to similar effects in medical terms.

Potentized homologous organs have also been used in homeopathy from an early date. Constantin Hering, who introduced important medicines made from "lower" animals (Apis, Lachesis, etc.), wrote that "potentized parts of the body act on the same parts in a living organism if given by mouth."(14)

In 1848, Dr. Hermann, a country doctor in Thalgau near Salzburg, described using preparations made of healthy fox organs to treat the corresponding organs in humans, saying that "*Tinctura hepatica vulpis* proved effective without fail in the treatment of swellings, inflammatory conditions, hardening of the liver, jaundice and constipation." (15) Such uncritical enthusiasm was bound to have its critics even in those days. Genzke commented with some irony that such total efficacy could not be claimed; even in Karkbad [Karlovy Vary].(16) The simplicity of the method and the danger of clinical medicine becoming oversimplified was referred to by Hirschke, who said it would then "no longer be a matter of exploring the individual case; it would be sufficient to establish the disease of the organ in question and use the corresponding animal essence to treat it."(17) Hermann's *Hepatin*, *Pulmonin* (for diseases of the lung) and *Lienin* (for diseases of the spleen) have largely fallen into oblivion.

In the field of homeopathy, the aim was to use potentized organ preparations to modify the "vital energy" when it was not taking proper effect in an organ. In conventional medicine, substitutive use of organs gradually evolved. A rather curious role in history was played by experiments the aged Brown-Sequard made on himself and published in 1889.(18) The great physiologist injected himself with triturated animal testes and thus became the "father of present-day organotherapy."(19)

The whole organ was used initially. Thus Murray used s.c. injections of thyroid tissue in myxedema,(20) and Banting pancreas extracts in diabetes.(21) Then, isolated "active principles" were increasingly used. In the long run, this type of substitution causes the functions of the target organ to fail, however, something that is probably best illustrated by cortisone-induced adrenal insufficiency.

Substitution treatment using organ preparations depends on passive tolerance on the part of the target organism. An immune response to the medicament can prevent its action. This can be seen most clearly in organ transplantation, the acme of substitutive organotherapy. The recipient's immune responses have to be permanently suppressed in this case. With potentized organ preparations, on the other hand, an active response from the recipient is essential for success.

From 1920 onward, Rudolf Steiner suggested the use of *potentized* organ preparations, mainly parts of the nervous system and endocrine organs. This meant the revival and deepening of a method that had ceased to play a role in homeopathy. The parenteral route was specifically stated to be necessary in this case, which was a first for potentized medicines.

Steiner gave only a few detailed statements on the subject. In a lecture he gave in Dornach on 2 January 1924, he spoke of conditions affecting the spinal marrow, which in my view means multiple sclerosis. Steiner spoke of the important role *Arnica* plays in the treatment of the condition and then went on to say: "One makes an extract of the part of the nervous system which one has established to be the real source of the disease, and injects this in a high potency, alternating with *Arnica*." He gave the example of nervous diseases originating from the "visual sphere," suggesting "collicular (quadri-geminal) substance" "to support the plant-based medicament." (22) Experience has shown that high potencies of organ preparations are useful in the treatment of inflammatory conditions (as in the above example) and of hyperactive states, low potencies in the treatment of degenerative states with insufficient organ activity. Low potencies of organs may thus be given "to support the plant-based medicament" (usually mistletoe, but also *Helleborus*, *Colchicum*, and others). The view taken is that the organ preparation channels the action of other medicines to the homologous organ, rather like a "guide rail."



Fig. 4. Fox embryo, 16 mm.
(Preparation by M. Sommer. Photo A.Wanka)

Georg Soldner has drawn attention to a passage in *Fundamentals*(23) where Steiner and Wegman say that measures need to be taken as the condition improves "to support the decreasing vitality," referring among other things to organ preparations. According to them, nourishing, vitalizing actions are needed parallel to letting the disease process reverse direction to replace lost energy. This is not adequately taken into account in the purely homeopathic approach and certainly not with treatment that mechanically removes the focus. An organ preparation is able to call up original ordering principles and strengthen the organ which provides the basis for malignant proliferation. This type of medicinal action may also be directed to organs that are preferred sites for metastases, strengthening their vitality as a preventive measure.

Pharmaceutics of potentized organ preparations

A large range of organ preparations is available today from the anthropo-sophical pharmaceutical firms, Wala and, to a lesser extent, Weleda. Details given below refer to Wala preparations; Weleda preparations differ in minor aspects. Bovines are the donors for most organ preparations. A closed herd of cattle from a small group of Demeter (bio-dynamic) farms has been the source for many years. Animal meal has never been fed at those farms, so that diseases such as bovine spongiform encephalopathies (BSE), presumably prion-mediated, are excluded. It is also important to realize that the amount of organic material required (1 mg/ampoule, for example, is calculated per ampoule of the 6x) is minimal compared to meat consumption for food. Calves or bovine embryos are used because, in them, organ-configuring powers are still highly active. The animals are under constant veterinary supervision, and the preparations are, of course, subject to microbiological and virological tests.

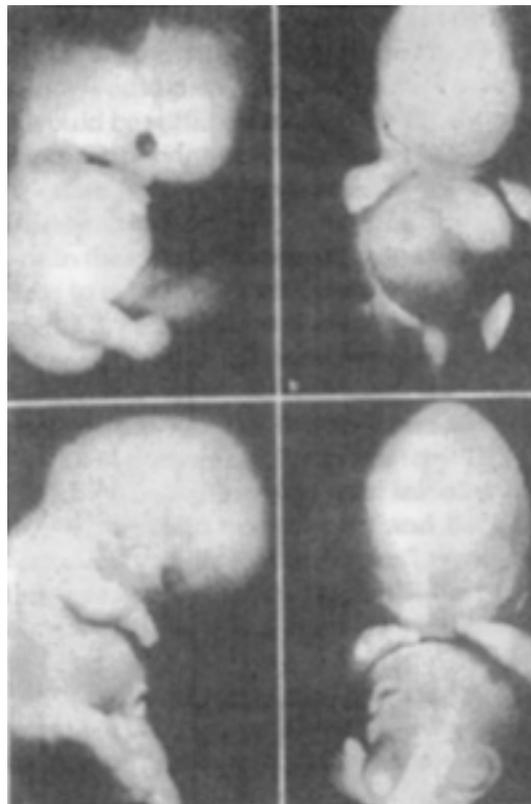


Fig. 5. Human embryos, stages 19 (15 mm) and 20 (19.5 mm).(7)

The organs and tissues required are collected immediately after slaughter. The organic form is broken down by mincing and trituration in sterile sea sand and finally a glycerin and electrolyte mixture. One can visualize the original form-creating forces being released in the process and becoming part of the solvent mixture. Solids are removed by sedimentation, and the fluid is then decanted as ground substance and potentized. The material aspect has gone completely at this stage (even the ground substance has an extremely low protein content), with the released power of configuration increasingly enhanced.

A question that is often asked is how an animal organ can have an effect in human beings who are, or are designed to be, independent of and higher than the animal world. The question really applies to all medicines obtained from the natural world. Rudolf Steiner's answer was that medicines from the different elemental worlds act on different aspects of the essential human being. In this respect, animal-based medicines act on the ether body. (24) In the special case of organ preparations deriving from higher vertebrates, there is also another point of view. If we compare the embryos of those vertebrates with human embryos, the morphology shows considerable agreement. Figures 4 and 5 show approximately comparable developmental stages of fox and human embryos. We note that animals go through a stage that is close to the human but then move away from this, whereas the human being remains close to his origin in his conformation. This is impressively demonstrated by the embryogenesis of the hand. At one stage, animals (see wild pig embryo. Figures 6 and 7) also show a five-rayed "human hand" with a thumb capable of opposition, but this later becomes an animal extremity with different specialization. We see, therefore, that forces have been active in the animal organ and lie hidden in it that relate to the human being. These form-giving forces originate in the etheric. This explains why such organs can be made into medicines for humans. Direct evidence is presented here that the whole of nature, in its origins, is related to man - something also discovered in the science of the spirit.

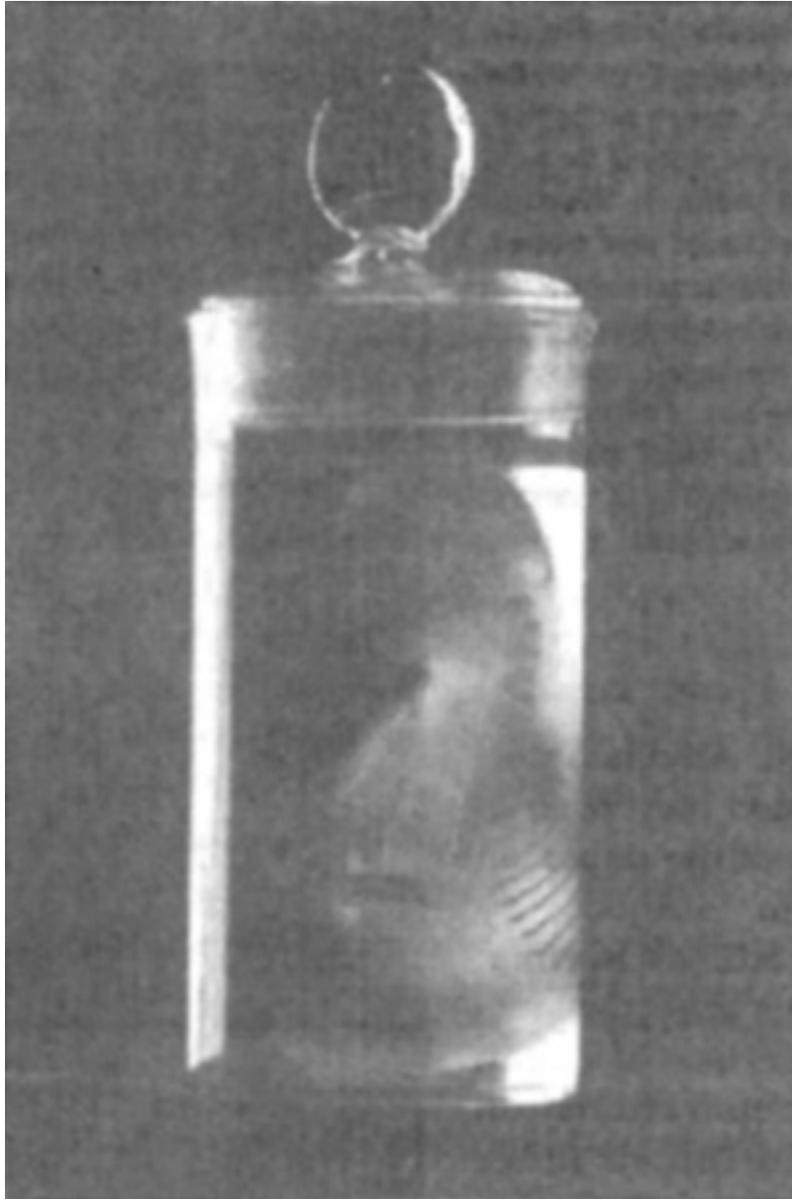


Fig. 6. Wild pig embryo (69 mm). See also Fig. 7.

Only brief reference can be made here to the particular significance of the cow as the donor. This creature lives in a dream, in a tremendously anabolic metabolism that intensely vitalizes not only the animal but also its surroundings, e.g. through its dung, if the animal is allowed to live a proper life.



Fig. 7. In the head region in particular (see Fig. 6), development has left the basic human far behind. Detailed study of the hand still shows the five rays. The tissues were cleared, and the bones stained with alizarin. Attention is drawn to the thumbs (recognizable from ossification of the terminal phalanx). Preparation by M. Sommer. PhotoA.Wanka.

Anyone interested may wish to read the paper on the subject by Franziska Roemer; this also considers the use of organ preparations on indications other than neoplasia.(25)

Treatment of cancer patients with organ preparations

Relatively low potencies, 4x to 8x, are usually indicated for the treatment of cancer. Higher potencies may be indicated for a time if an undesirably powerful inflammatory action should develop with mistletoe treatment, which is unusual. In view of the aspects discussed in this paper, low potencies may be expected to act in three ways:

- 1 Inhibition of pathological growth and perhaps also activation of apoptotic processes. Activation of specific immunity may also be assumed to inhibit tumor growth indirectly.
- 2 Low potency of the homologous organ preparation regularly vitalizes and stimulates the functions of the organ concerned. If a cancer patient has chemotherapy, for example, administration of *Hepar GI* 5x or 6x will not only result in laboratory values returning to

normal more quickly than without this adjuvant treatment, but the general condition will improve considerably, with tiredness, exhaustion, etc. much less of a problem. *Medulla ossium Gl 6x* will markedly reduce the degree of myelosuppression.

3 The above actions, one acting downwards, as it were, in suppression and the other anabolic, acting upwards, as it were, come together in the differentiating activities observed in experimental cell cultures. Limits are set to a vitality that has gone out of control without killing and this, in conjunction with configuration according to the tissue's original tendencies, leading to reintegration in the organism.

In real terms, this clinical approach is as follows. In addition to mistletoe or another plant-based medicine such as *Helleborus* or *Colchicum*, my tumor patients receive low potencies of the organ preparation homologous with the primarily- or secondarily-affected organ (e.g. mamma, colon, bronchi, prostate). In some instances I also give a preparation homologous with an organ that is particularly likely to be the site for metastases, e.g. *Hepar*, *Pnlmo*. The preparation is given once or twice a week by s.c. injection in the region of the organ or into the fatty tissues of the subcutis on the upper arm, thigh or abdomen, in some cases, I determine the cellular immune status, though to date there is nothing to indicate that these data play a major role in deciding on strategy (the "gold standard" continues to be careful observation of the patient, his temperature reactions and state of well being).

It was noted on a number of occasions that an unfavorable T4:T8 ratio was corrected by giving the *Thymus* preparation. *Lien* and *Lien comp.* (*Mesen-chyme Gl 6x*, *Lien Gl 6x*, *Renes Gl 6x*, *Equisetum ex herba 15x* and *Cichorium e pl. tota 15x*) may also be considered.

Embryonic tissue preparations play a special role as they act in a wider sense than individual organ preparations. Both *Amnion* and *Mesenchyme*

Above, I have tried to show how differentiation impulses come to the embryo from outside. The amnion is the most peripheral organ we develop in life; it also has the highest silica content, about 20% of SiO₂ in the ash. During the embryonic period, the configuring forces may be said to act through this enveloping silica structure, and the preparation can call up differentiation powers in cancer patients.

The power to "create enveloping forms" also helps the patient at the soul level. I often give the 30x together with *Cuprum met. prep. 30x* (Weleda) every week or two weeks, and never have I heard patients say more frequently than with this medicament: "Could I have that injection again. I never knew it was possible to feel like this." Cancer patients often feel unprotected, naked and exposed and at the same time, paradoxically, as though surrounded by an impenetrable wall.(2) Potentized *Amnion* can help them to develop the enveloping and, at the same time, open soul structure they need.

Organ preparations to treat pain

Another major indication for organ preparations in cancer patients, is the following.

Whereas patients are not sufficiently awake organically in the affected organ to begin with (the condition is initially painless and largely unperceived by the immune system), conscious awareness may be permanently tied to the diseased organ later on, causing it to be excessively awake. Apart from potentized medicinal plants and minerals,(25) high potencies of organ preparations are helpful in this situation. Thus *Plexus coeliacus 15x* or *30x* may give instant pain relief with epigastric tumors. This autonomic plexus (or celiac ganglia) serves not only to supply the epigastric organs but is also connected (via the major splanchnic nerve) with viscerosensitive fibers, which is why, in conventional pain treatment, attempts are made to eliminate this organ with local alcohol infiltration, e.g. in patients with pancreatic tumors.

Plexus mesentericus in the same potencies may be used to treat lower abdominal pain. Almost all nerve and plexus preparations (esp. *Plexus brachialis* and *Plexus lumbalis*) may be used to treat pain located in the area they supply. There is a possibility that *Substantia gelatinosa*, which is intimately concerned with the connections of pain-conducting fibers in the spinal cord, or *Gyrus cinguli* will take us further where other medicines fail; but this still needs further work.

The cingulate gyrus is partly responsible for the link between pain and emotion, and patients who have suffered damage in this part of the brain state that while they still feel the chronic pain, it "no longer worries" them.(29) This is also utilized in clinical methods based on destruction of the organ, but functional modification with a potentized organ preparation would be a more differentiated approach.

Chest symptoms, e.g. with bronchogenic carcinoma or pulmonary metastases, involving pain or dyspnea often respond well to *Plexus pulmonalis* in high potency.(26)

These indications for the medical treatment of cancer patients should not make us forget that effective treatment must be at a number of different levels, with in-depth conversation and indicated art therapies at least as important as medical treatment. As part of a comprehensive strategy, the organ preparations are nevertheless a means of offering considerable help to cancer patients. In their present form, they have been developed in anthroposophically-extended medicine. Used creatively, they can be an important part of the armamentarium.

The above paper is largely based on a lecture on "organotropic treatment for cancer patients" the author gave at a seminar which the Helixor and Wala companies organized in Hamburg on 3 February 1996.

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Figs 2 and 5 included with the kind permission of Prof. Hinrichsen and Springer-Verlag, Berlin.

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