

## **Cellular Therapy and its Regenerative Power**

In plain terms, Cellular Therapy means that cells and minute cell unions are suspended in a natural solution and by injection are given to the patient. Thus Cellular Therapy is a treatment based on biological substances conveyed in a suspension containing hundreds of thousands of cells and minute cell unions. The cell components allow defective cells in the human body to revitalize by supplying the patient's ailing or defective organ with valuable biochemical substances. These biochemical substances supply the building "bricks" for the defective organ to begin functioning correctly. It is the practice of the future, perfectly suits the problems of our time and the near future: Degenerative Diseases. As human life-expectancy is increasing, optimization of health is of major importance. The "Pharmacon" in the classic form of Cellular Therapy is a lyophilisate of tissue-particles. Deep-frozen and dried cellular material is used without any additives. This material has no toxicity at all. The therapeutic value of this material consists of a high content of biochemical substances, enzymes and the concentrated energetic power of foetal cells. German research has proven that cells can be used from any mammalian source; the therapeutic value is the same.

### **THE THERAPEUTICAL MATERIAL**

The solution used in cell therapy is a resuspension of many millions of cells. Every 100mg of freeze dried concentrate contains from 70-180 million cells; the amount is dependant on the individual cells type. All human and animal organ cells are formed according to a similar basic plan, and have the same subunits which perform the same functions. Even in specific organs there is no major difference between the cells of humans and those of animals. There are three different techniques in cell therapy. Carried out correctly, each method is successful in principle, but different in quality and quantity. These three technical procedures are the "Fresh Cell Method", the "Ice Cell Method" and the "Dry Cell Method".

Originally, Niehans used only the so-called fresh cells. However, he soon recognized the following disadvantages: With the "Fresh Cell Method" it is impossible to control sterility during the time required to remove the cells from animal to the human. Even with optimal technical organization, the time involved in the process of removing the cells from the animal and their injection into the human is at least one to two hours. Should more than 20 minutes elapse, however, the cells start to decompose as self-digestion starts in. Because of these disadvantages, the "Fresh Cell Method" is no more used.

In the "Ice Cell Method" deep-freezing is introduced between extraction of the cells from the animal and their injection into the patient. This makes it possible to test the cell material for sterility. The disadvantage of this method, however, is that deep-freezing and subsequent thawing of the material activate physical processes which change the final structure of the cells and so impair their therapeutic efficacy.

The "Dry Cell Method" is the most commonly used in the whole world today. This method guarantees a high concentration of biochemical substances, enzymes, sterility, easy transportation and use. Freeze-drying is accomplished through the dehydration of frozen material under high vacuum (lyophilisation). To date, no better means has been found for preserving tissue. It enables the preservation of specific biochemical cell compounds and microscopic and sub microscopic structures in their original state. The donor animals come from private herds which are carefully supervised by veterinary surgeons and kept in strict quarantine six week before use. No chemical or pharmacological substances are added during the extraction and processing of organ tissues, nor does a denaturing sterilization of the cell material occur. The cell content in cell preparations remains bio chemically and structurally unchanged so that the complete medical effectiveness is preserved. It was the development of dry cells which first enabled every general practitioner to make use of cell therapy. With these preparations the doctor is independent of the abattoir and the ampoules of cell preparations will keep for at least several years - even under tropical conditions -because they are filled under vacuum.

### **PREDISPOSITION FOR THERAPEUTIC RESULTS**

According to the principles of efficacy a positive result can only be expected when: Structural defects and/or functional weakness exist on a cellular or macromolecular level as the incorporation of the donor cells cannot take place without a "niche" to fit into. A therapeutic material is offered which is adequate in relation to primary cell-defect in the recipient.

### **INDICATION OF CELLULAR THERAPY**

In theory Cellular Therapy can be used to treat any disease (as we are treating at the cellular level) but great advances and research has been achieved in the treatment of the following:

- Degenerative Diseases - Parkinson's Disease, Multiple Sclerosis, Liver Disease
- Arthrosis, etc.
- Premature Ageing with Loss of Vitality
- Congenital and Perinatal Disorders and Disabilities
- Multiple Handicaps and Disorders - Cerebral Palsy, Infantile Brain Injuries, Strokes
- Auto-Immune Diseases, Asthma, Crohn's Disease, Arthritis
- Chromosome Anomalies, Down's Syndrome, Noonan's Syndrome, etc.
- Hormonal Dysfunction, Pre-Menstrual Syndrome, Impotence, Loss of Libido
- Embryo-Foetal Disorders (Foetal Alcohol-Syndrome)
- Prematurity and Immaturity
- Infantile Cerebral Paresis
- Several Multiple Handicaps and Disorders
- Disorders and Diseases of the Central Nervous System
- Maturation Disorders
- Stroke Lesions
- Endocrine Disorders
- Cardiovascular Disorders
- Diseases of Bones, Joints, and Connective Tissues, Osteoporosis, Arthrosis
- Liver Diseases, Chronic Hepatitis
- Lung Diseases, Emphysema, Asthma, Fibrosis
- Kidney Diseases, Nephrosis, Chronic Nephritis
- Skin Diseases
- Disorders of the Immune System
- Age Dependant Functional Impairments
- Concomitant Tumour Therapy

### **SIDE - EFFECTS**

Foetal cells contain a high concentration of biochemical substrates, enzymes; they have no toxicity. The antigenic potential is much lower than in adult-cell-material. But under certain circumstances there can occur the following side-effects:

- A more or less pronounced local reddening and swelling
- Pain at the injection site, usually lasting for 2-5 minutes
- Rise in temperature (0,5 -1,5 Celsius) on the first and second day after the implantation
- A feeling of lassitude, tiredness, desire to sleep, distaste for alcohol
- Sublingual: Nearly no side-effects

### **CONTRA - INDICATIONS**

To avoid unexpected side-effects cell-implantations should not be carried out under the following conditions:

- During acute or chronic bacterial infections. (in chronic infections lasting for many years and no longer responding to chemotherapeutics, an exception to the rule can be made. In such cases, the weakened natural resistance of the body can be activated by revitalizing the patient through cell therapy and by strengthening those organs and organ systems which supply resistance.
- During acute viral infections
- Before and after vaccinations (4 weeks)
- In acute allergic-hyperergic conditions
- In terminal stages of disease (when a "last try" is attempted)
- Cell therapy is also inadvisable as long as the body still contains disseminating foci of infection. Festering teeth, a chronically inflamed appendix or chronic inflammation of the tonsils or gall bladder, for example, would fall into this category.

## **THE COURSE OF TREATMENT**

Treatment with cell implantations should be performed by a doctor thoroughly versed in the principals of cell therapy. A thorough preliminary examination is essential in order to determine whether the patient is suited to cell therapy and to exclude any possible infectious or inflammatory conditions. It is usual in cell therapy to employ cell combinations. One type of cell alone, and consequently one injection, is seldom sufficient.

One course of treatment normally involves from two to six separate preparations. After the implantation the patient should take it easy for one to two days before returning to his normal way of life. Three phases may appear following the cell injections:

The first is noticeable immediately after the injection. Soluble elements in the cells become active, being immediately absorbed into the blood-stream and induce a short-term improvement of the complaint and an increase in vitality. This phase fades after a few hours or, at the latest, after a day, to be succeeded by immunobiological reactions.

The "reaction phase" may last for 11-14 days after cell injection. At the beginning of this period, some patients complain that they feel exhausted and jaded and that the existing complaints are aggravated. There are patients who resorb the cells from the start without discomfort and who experience a beneficial effect very soon. This is especially true with children. The greater the organism's need for the implanted cell preparations the fewer such reactions appear.

The third and final phase of cell therapy is the regeneration stage. It begins in the third or fourth week and lasts for 4-6 months after the injection. During this period the desired therapeutic cure is noticeable. There is above all renewed vitality together with an improvement in general condition and greater functional capacity. The renewed vitality manifests itself in increased appetite, an increase in weight in people previously underweight, better blood supply to the skin, the disappearance of wrinkles, a rise in spirits. With organ complaints there is, in addition to this renewed vitality, an evident improvement or normalization of the organ's functioning. The final effect produced by cell therapy can last (depending on the case) from 6 months to several years. For many patients, one cell treatment results in a final cure.

Should a repetition of the treatment be necessary, it should not be done before 6 month after the first treatment. After the cell therapy, the patient is advised to observe the following precautions:

- Coffee and tea in normal amounts are permissible during and after cell therapy
- There is no objection to a glass of beer or wine
- Smoking should be stopped. Nicotine is a very strong cell and enzyme poison which can impair or entirely cancel out the effect of implanted cells. Moreover smokers will notice that it is much easier to give up smoking after the cell injections.
- Medicines and drugs should be kept to an absolute minimum.
- Physical exertion must be avoided during the first 14 days after cell treatment.
- The patient should not expose himself to excessive heat or intense sunlight during these two weeks.