Cell Therapy – Trust in the forces of nature

From Dr. Edouard Bärtschi, Clinique Paul Niehans, Vevey – Switzerland

A little of history :
In 1912, the price Nobel Alexis Carrel has demonstrated for the first time the revitalising effect of young cells on a culture of old and degenerated cells. Mr Carrel told : « The hope of the humanity is based on the prevention of the degenerative and mental illnesses, but not in the relief of the symptoms ».

Professor Niehans discovered the cell therapy in 1931 by chance : one of his collegues asked him help for a critic case : during an operation of the thyroid gland, the parathyroid gland was damaged, the patient was suffering from strong convulsions and his state was critical. Niehans hadn’t the time to execute the surgical implant of the whole gland. Using a trocart, Niehans prepared parathyroid cells obtained from a calf. The success of this therapy led Niehans to abandon literally the surgical transplantation of the intact glands for doing only implants through injections.

In 1937, stimulated by the great neurosurgeon and neuroendocrinologist Cushing, Niehans has implanted for the first time cerebral cells, principally of the hypothalamus and of the hypophysis. From 1948, he amplified the therapeutic system with liver, pancreas, kidneys, heart, duodenum, thymus, spleen.

In 1949, he continued with the first injections of the lyophilized (freeze, dried) cells. Pope Pius XII was treated with these cells.

Scientific elements of the cell therapy :
Almost all the scientific experiences of the cell therapy were carried out with the lyophilized cells. The method of lyophilization consists of dehydrating the freezed cellular material, vacuum-filled in vials, whose perfection of sterility is guaranteed. These cells keep unspoilt in their subtle molecular structure, in order to conserve all their therapeutical effect.

What happens with the application of the injected cells :
It is proved that the cell particles are disintegrated by phagocytosis and distributed in the whole organism and besides, these fragments which are especially composed of peptides, proteins and nucleic acids, are stocked in the most deficient organs. For example we can observe after an experimented lesion of the liver on an animal, (by tetracholorimethane), the injected cells of the liver contribute to restore the liver’s function and increase the percentage of survival of the treated animals.

Revitalizaton :
One of the most appreciated effect of the cell therapy by patients, is the increase of the general vitality. Prof. Kment of the veterinary University in Vienna and his fellow workers were investigating the effect of the testis and placenta cells, on rats of different ages. They could prove the revitalising effect while observing the following different alterations :
a) Improvement of the elasticity of the collagen and the fibrin.
b) Better respiration of the tissues and better use of the oxygen of the cells.
c) Increase of the energetic potential of the cells in correlation with:
d) Morphological changes of the mitochondries towards regeneration.
e) Increased permeability of the cellular membranes.
f) Improvement of the microcirculation.
g) Reduction of the lipids and of the cholesterol.
h) Activation of the hormonal endocrine system, especially of the sexual glands and the adrenal.
i) Increased activity of the DNA’s repair enzymes.

By analysing 50 geriatric parameters in animal experimentation, the researches could prove that the lyophilized cell preparations of placenta and testis help to reduce the differences between chronological and biological ages.

The result of the clinical revitalisation study done by Rietschel in 1957 is very interesting. A revitalisation effect in 98.5% of the 378 treated cases has been noted. The average duration of the effect lasted between 6 to 12 months, in several cases even more than 2 years.

**Which are the cellular preparations used for revitalization and which are their effects:**

**Placenta**
The placenta improves the elasticity of the blood vessels, the micro-circulation, the oxygenation and the permeability of the cells. It improves as well the memory and the agility. Sometimes, the diuresis, increases after a placenta injection. This preparation has a general revitalising effect.

**Hipothalamus**
It is the supreme regulator center of the endocrine gland. It increases the influence of the endocrine tissues which are injected on the corresponding endocrine gland: hypophysis, thyroid, sexual and adrenal glands.

**Ovary**
It has a regenerating effect during the menopause, in case of amenorrhea, infertility and depression during the menopause.

**Testis**
Besides its general revitalising effect, it produces an increase of the production of the testosterone, a fall of the blood lipids and cholesterol. Its use is really indicated in case of disability and infertility.

**Heart**
The heart tissue regenerates the injured and aged myocardic cells.

**Thymus**
It is not only important in the development of the body’s defences, but also in case of bad endocrinal functions. Concerning the esthetic aspect, it is interesting to underline that certain forms of alopecia can be treated favourably by the thymus. Moreover it promotes a better stocking of calcium in the bone structure, with a remarkable action in the treatment of the osteoporosis, principally during the menopause.

**Brain-based preparation**
They are used in combination with the placenta to treat some atrophies of the brain coming with the age and are very important to improve the state of retarded children.

**Adrenal gland**
It stimulates the deficient adrenal gland. We know that the adrenal function weakens with the age, that is why we need to take in consideration a revitalising programme. The cortisone is produced in the adrenal cortex, and also the sexual hormones. Consequently, the treatment with the cells of the adrenal gland is indicated to treat problems impotence.

**Connective tissue**
The connective tissue stimulates and modulates the immune system and that is why we apply it on patients having a diminished health state. It is very recommended for the treatments of degenerative joint desease, the cutaneous ageing and especially as an auxiliary therapy in the treatment of the cancer.

**Indications for the cell therapy** :
One of the most frequent application fields is :
- A premature ageing with physical and psychic tiredness, symptoms of weakening and loss of vitality.

**Other indications** :
- The deficiencies of the endocrine glands.
- The degenerative diseases of the connective tissue.
- Arteriosclerosis.
- Reduced immune defences with predisposition’s to infections.
- Reduced intellectual capacity.
- Some backwardness in the development of the childhood.

In the chronic diseases which were treated during years by classical medicine without any success, the cell therapy can be also very useful because it stimulates the self-defences of the body and revitalises the patient.

**Contra-indications for the cell therapy** :
All diseases having an infections or inflammatory origin are contra-indicated for a cell therapy. And also in case of isolated infections (such as tooth with pus, tonsillitis) ; also in certain cases of diabetes or certain diseases of the kidneys.

**Cell therapy : course of the treatment** :
Before beginning the treatment, the patient will undergo some complete exams in order to determine if he is fitted to do the cell therapy.

Generally, the treatment contains several injections of different cell combinations. Directly after the injections, the cells of the giving animal are carried by the white globules of the patient to the organs and tissues in order to incorporate into them. With a cell material tinted and radioactive, there was demonstrated the animal cells find their way in direction of the human organs, in order to be able to accomplish their “repair function”.

**Observation** :
During the treatment, it is allowed to drink a little bit of coffee or tee; a glass of beer or wine without any abuse. The consumption of tobacco must be reduced and during 4 weeks it is
advised to avoid sunbathing (sauna – Turkish bath). After one or two days of rest, the patient will be able to start its normal activities again.

**How long does a cell therapy last?**
The success of the cell therapy depends on the individual cases. It lasts at least several months and frequently lasts several years. When it is advised to do another cell therapy, it is important to wait 6 months after the last treatment.

Normally the treatment includes three phases:

- **The first phase**, as a **primary effect**, can bring a general improvement of the diseases of the patient. The effect of this first phase can diminish after few days. However, this should never be a reason to doubt of its efficacy.

- **The second phase**, called phase of **reaction**, can resemble to some curative baths, creating for the patient a state of tiredness and also an increase of the pains whose he was suffering. The organism “is working”.

- **The third phase**, is the phase of **recovery** which has a durable effect. This phase begin usually during the third or fourth week and arrives at the to after 3-4 months. The general conditions improve, the intellectual capacity and the resistance increase, and the blood irrigation of the skin becomes more fluid. The moral state of the patient improves.

Consequently, the cell therapy brings the lost vitality back again and the possibility of a full life, until an advanced ageing.