

**Biochemistry, And Symbolism In
Gemmotherapy And Phytoembryotherapy**

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ISSN 1718-1534

Abstract

Gemmotherapy is a treatment conceived in 1959 by Pol Henry from Bruxelles. It is based on the use of extract of embryonic tissues of trees and plants, buds, young sprouts, and young roots. Each undifferentiated cells, has nucleic acids with genetic information, mineral salts, trace elements, vitamins, enzymes and growth factors. Each plant is an ecosystem with its own biological equilibrium that has some affinity with the biological system of the man and his illness. The undifferentiated cells of the buds live in the cross point where the plant join the power and the energy of the earth (roots), and that of the cosmos (branches and leaves). The embryonic vegetal tissue helps the physiological mechanisms of the man's health against the aggressiveness of the inflammation. There are two methods to prepare the extracts of embryonic tissues: the first is to crumble the tissues and macerate them in glycerin and alcohol, the second is to macerate the whole embryonic tissues in a mixture of water, glycerin and rye alcohol

Key words : Gemmotherapy, embryonic tissues, health, against inflammation

Method

This is a descriptive article, isn't a research, but a study, which analyzes the current knowledge on Gemmotherapy and evaluate its potential from the therapeutic point of view. The prescription in Gemmotherapy is in relation with the biological stage of the patient and with the phytosociological place of the embryonic tissues (buds, young shoots) in nature because the plants are a source of elements for the health and growth. We want to remind the reader that the link between plant and animal, and between plants and humans is found in all cultures and in all the myths from ancient times to today and throughout all the world.

In particular we note and must remember the Symbolism of plants, and the theory of signature (all mythological and empirical data) that permeated the various cultures for millennia in different parts of the world.

Gemmotherapy has developed three patterns of application, Biological Analogic Model, Clinical Model, and the Model of drainage. These three methods of treatment are not in conflict with each other but are complementary. They found the best clinical application in the new galenic formulas. The modern use of techniques therapeutics is the Modern Gemmotherapy with the use of Mother Macerated, or Glycero Macerated Concentrated or Embryonic tissues glycero Macerated Concentrated.

Results

The Gemmotherapy, is traditionally used by the end of 1959 was created by Dr. Pol Henry, Brussels, (Belgium),and is based on the use of embryonic tissues (buds, young shoots) mainly from trees and shrubs. The buds are the essentials elements as embryological tissues, young shoots, rootlets.

Dr. Pol Henry (October 22, 1918 – October 7, 1988) was born in Belgium. During the Second World War, he studied medicine at the universities of Brussels. He was attracted in his early studies from homeopathy. But these studies were far from his mindset as a doctor, and he turned early to the herbal medicine.

Dr. P. Henry observed, through the effects of extracts of buds, and developed a new therapeutic approach. He defined that the meristem should contain all the informative energy for the development of trees. He named this new face of phytotherapy: phytembryotherapy.

Through the maceration of buds and young shoots in alcohol, glycerin and water he has found a way to extract their active ingredients as a macerate. The buds birch (*Betula pubescens*) were the first that he studied. These buds were able to activate macrophages of the liver and to allow the drainage of Kupffer cells when they had stored carbon colloid.

Dr. P. Henry published the foundations of his method and clinical results of its new herbal approach in 1970, and was the president of the French Society of Biotherapy. In 1982, Dr. Henry P. developed a computer program that, based on examination results of serum globulin, allowed doctors to study the biology of the patient and find the phytotherapeutic active substances in phase with the pathology of the patients.

Who inspired Pol Henry's.

St. Hildegard of Bingen (1098-1178) used to advise buds of apple, birch, blackcurrant, chestnut, ash, silver linden. Then Johann Wolfgang von Goethe, wrote his ground work "The metamorphosis of plants". Pol Henry developed the method from a biochemical basis, when he found a biological profile in one patient, he prescribed the bud in which, are harmonized the complete biological characteristic data.. So he studied the physiology and modifies blood biological constants in patients and in buds, and tried to compare them with each other.

Max Tétou, which was a great friend of Pol Henry, was the promoter, with Dr. Bergeret of clinic Gemmotherapy. The Dolisos Homeopathic laboratory through its President, Dr. Max Tétou, gave him the name of "gemmotherapy" by preparing D1 glycerin macerates. (As opposed to mother macerates or D1 glycerin macerates). All these organs are available under the glycerinate macerate form DH1 or better as Mother Macerate (Concentrated Macerate), the main difference is in the proportions between the three solvents, as we shall see later.

The study of the activity of the embryonic tissues

Doctor P. Henry used different biological parameters to prove the activity of the embryonic tissues. The prescription in Gemmotherapy is in relation with the biological stage of the patient and with the phytosociological place of the embryonic tissues (buds, young shoots) in nature. These tissues belong to Autotrophic plants that live through photosynthesis. And Doctor P. Henry used the embryonic tissues, buds and the young shoot of trees and shrubs, more evolved, which are rich in active ingredients.

His scientific thinking has been the evolution of an age-old relationship between man and plants. These relationship between humans and plants has been a progressive evolution as the same plants have evolved over the millennia. The evolution was gradual. At the beginning the processing from algae Cells to marine plants. Then Bryophytes that have adapted to the environment by air capturing sunlight evolving in two directions, the earth and sky. The processing to become vascular plants have perfected this evolution and greatest expansion in the Carboniferous, when we can see Pteridophytes (*Lycopodium clavatum*-Lycophyta - and Pterophyta - ferns and horsetails) and the Angiosperms and Gymnosperms which were also used as food for humans and animals.

So we can describe the plants as a source of elements for the health and growth. The link between plant and animal, between plants and humans is found in all cultures and all the myths from ancient times to today and throughout all the world. Examples of the relations between men and plants are very clear in fairy tales. There is a close association between man's life and the vegetable kingdom in the tales.

So I will briefly tell you a tale from my country (Sanremo, Liguria, Italy) (Italo Calvino). There was a young shepherd to whom a potent sorceress made an enchantment. If he had found the Nice Bargaglina (was the nickname of a young woman born and raised in Bargaglina, a town of Liguria an Italian region), in the three magic apples, he would have been able to grow up. He found three times the magic apples and inside the Bargaglina, and twice the sorceress killed her, the third time the little girl was transformed in a fish. The young shepherd caught the fish and he ate it, and the fishbone that he had thrown on the grass became a big tree.

When the shepherd picked the buds and the flowers (was the balsamic period, in which there were still on the tree buds and flowers, n.d.r.) of the tree, he found inside the Nice Bargaglina and the sorceress could never kill her because the enchantment of the flowers was stronger than the sorceress one. When the shepherd picked the buds and the flowers of the tree, he found inside the Nice Bargaglina and the sorceress could never kill her because the enchantment of the buds and the flowers was stronger than the sorceress one. But also the symbolism, is a clear relationship between man and plants, and do not stop at the fairy tales, here are some quick examples.

The Symbolism of plants, Daphne pursued by Apollo, is transformed by her mother Erda into a plant of Laurel (*Laurus nobilis*). Phaethon's sisters turned into poplar trees blacks (*Populus nigra*). Also *Viscum album* Family: Lorantacee , that is Oak and Mistletoe, are important plants in Celtic medicine, because Mistletoe symbolizes the resurrection of life and survival to death. The plant remains green even in winter when other plants are dormant.

Mandragora was indispensable for the spiritual and magical practices. The Mandrake has an anthropomorphic, which according to legend, is derived from its membership of the animal and plant kingdom together. We can find the signature, also in mythology and empirical data, like *Hypericum perforatum* with its Leaves punched: heal a wound, *Punica granatum* for the Diseases of the mouth and teeth; *Scrofularia nodosa* for the Hemorrhoids ; *Rubia tinctoria* for Antiinflammatory cystitis, and finally Walnut husk For the disease of skull.

Medicine and therapy with plants: (Gemmotherapy or Phytoembriotherapy)

In the study of plant life have been classified over than 600.000 known plant species, but only the 5% is investigated in clinical and pharmacological terms. You can quickly realizes that the space for new insights is really enormous. However Gemmotherapy using meristematics tissues exploits the embryonic potentiality of plants, and is young as a therapeutic intervention. Bud represents a whole cycle of plant formation. With each bud formation, the plant concentrates its forces to be redeployed again and is in a new stage of its life.

In buds formation is the life of the plant that can concentrate in the bud all the potential for growth when condition of a real life is lacking, to deploy again when they are good. The interruption of growth in winter is based on that and redeployment in spring is new life. Meristems are groups of undifferentiated embryonic cells of the plant and the buds are the main reserve of meristems. All the undifferentiated cells, are characterized by the aptitude to restore themselves through mitotic cell division and differentiate in diverse variety of specific cells. Each Undifferentiated Cells, contain a large amount of nucleic acids (genetic information) minerals, trace elements, vitamins, enzymes, growth factors called auxins, gibberellins and hormones All of them disappear at the formation chlorophyll. The buds are located on the branch of tree, by two forces: Telluric and Cosmic and they can meet this two forces.

Taking out the energy contained in embryonic tissues provides genetic information of the plant and all the properties of different parts of the plant (fruit, leaf, flower, stem, bark, root, seed, sap...). Telluric energy is an emanation of the trunk, as a kind of crystallization of plant, under the influence of Earth elements (minerals, gems) and Water (sap, blood of trees or plant). Cosmic energy is a leaf or flower precursor under the influence of Air elements (leaf) and Fire (flower). This "crossroads" position is considered as a bridge between the forces of the earth and of the heaven, a meeting point and development of these energies.

The entire plant is simply a exploitation, of what virtually lies within the bud or seed. The bud and seed need the suitable external influences to become plants. The difference between bud and seed is: Seed is able to keep information in memory for a very long time immediate development field is earth. Bud represents a plant individual of a superior species or in other words a whole cycle of plant formation Begins to grow in autumn Stops in winter Deploys in spring. In a way, with each bud formation, the plant lands in a new stage of its life, it regenerates, concentrates its forces to grow again.

Thus, the specific action of buds extract is not only due to the symbolism, but also to biochemical components it contains and finally to the ancestral phytotherapeutic action by which we know it.

Gemmotherapy, Phytoembryotherapy and therapeutic purpose.

Gemmotherapy and Phytoembriotherapy has developed three patterns of application

1. Biological Analogic Model
2. Clinical Model
3. Model of drainage

Gemmotherapy, Phytoembryotherapy and Biological Analogic Model

The evolution of the forest is studied through the phytosociological analysis. The modification of the soil determined by the evolution of forest, and the correspondence between changes in the "land" from the study highlighted the human protein electrophoresis. Consider interference between plant and soil (environment of the plant) and the influence and change in the electrophoretic pattern in certain human diseases, is the therapeutic associations of trees and shrubs that refer to a unique ecosystem.

This method analyzes the biological parameters that follow the evolution of a disease with the human serum protein electrophoresis. The exudative inflammatory phase is expressed by an increase in alpha globulins the Gemmotherapy that experimentally decreased alpha globulins are indicated for this disease. Not always the regression of biological phenomena corresponds to a cure of the disease, or the disappearance of clinical symptoms. The human being is not just a set of biological parameters, but their health depends from the psyche, emotions, environment and lifestyle. Parallelism between the evolution of forest, humus development, and modification of the electrophoresis of proteins and cell lines and blood.

Inflammation causes Hyper α , and subsequent Deposition causes Hyper $\alpha \beta$, Hyper β . when inflammation continues, reaching three successive levels, Fibrinosis with Hyper $\alpha \square$, Hyalinosis with Hyper $\alpha \beta \square$ and Cirrhosis with Hyper $\beta \square$. At least we have the tissues irreversible suffering with Fibrosclerosis Hyper \square , and Amylosis Hypo \square

For the Inflammation Hyper α with subsequent deposition Hyper $\alpha \beta$ Hyper β that are the phase 1 and 2 of inflammation, we can find trees, shrubs, pioneer of the forest, and Trees are *Alnus Glutinosa*, *Betulla Pubescens*, *Populus Nigra*, *Fraxinus Excelsior*, While Shrubs Are *Cornus Sanguinea*, *Ribes Nigrum*, *Rosa Canina*.

For Chronic inflammation with Fibrinosis, Hyper $\alpha \square$, Hyalinosis, Hyper $\alpha \beta \square$, we can use Plants that grow in humus developed, Trees: *Betulla Verrucosa*, *Juglans Regia*, *Fagus Silvatica* Shrubs: *Rubus Fruticosus*, *Rosmarinus Officinalis* (Young Shoot), *Viburnum Lantana*. When the tissues degenerate into Cirrhosis with Hyper $\beta \square$, Fibrosclerosis Hyper \square Amylosis with Hypo \square , that are Last phase of inflammation amyloid degeneration is difficult to achieve reversibility. You must use active plant in the ground *Ribes Nigrum*, *Calluna Vulgaris*, *Rosa Canina*.

This parallelism is not magical, but it has been investigated and tested. These are the changes that have meristematic tissue on protein electrophoresis.

Gemmotherapy, Phytoembryotherapy and Clinical Model

This is a Allopathic method with Diagnosis and therapy. The active ingredients contained in the primary and secondary meristems, enzymes, growth factors, auxins, gibberellins, plant hormones, vitamins, proteins, nucleic acids (DNA, RNA) empower the therapeutic Found in

larger amounts than in adult plants Auxin (indole acetic acid 3 Hormone) responsible for cell distension Terpenoid gibberellins stem elongation, growth bud. Kinetin (cytokine) causes rapid cell division.

Each one has a particular tropism organ and is prescribed according to clinical criteria Ribes Nigrum: anti-inflammatory cortisone-like; Tilia tomentosa: insomnia; Crataegus oxycantha: heart rate abnormalities by stress.

Gemmotherapy, Phytoembryotherapy and Model of drainage

Gemmotherapy with stimulating activities for all the excretory organs, they have centrifugal action on the body and elimination of metabolic wastes out of the liver, kidney, intestines, lungs, skin, body fluids (lymph and blood). The Model of drainage of gemmotherapy with stimulating activities for all the excretory organs is useful to remove drug intoxication (calcium channel blockers, beta blockers, tranquilizers stimulants, sedatives, antidepressants, sleeping pills,) environmental pollution, that requires a mesenchymal and reticuloendothelial system drainage.

For example for a crisis of asthma Crataegus Oxycantha Improves heart tones, Coryllus Avellana Reduces bronchospasm and Viburnum Lantana Improves lung stretch.

Three methods of treatment

These three methods of treatment, Biological analogic model, Clinical Model, Drainage Model are complementary and they are not in conflict with each other, are not parallel to each other, they are complementary.

They found a clinical application in the new galenic formulas in gemmotherapy with the use of Mother Macerated, or Glycero Macerated Concentrated that is named Phytoembryotherapy. This method is related to Gemmotherapy also if there are some differences. Phytoembryotherapy is based on the original method of Dr. Pol Henry, the "macerate-concentrate" which is made with water, alcohol and glycerin without being diluted and belongs to phytotherapy. Gemmotherapy is based on the "glycerin macerate 1DH which is made without water, just with alcohol and glycerin and is 10 times diluted. Gemmotherapy belongs to homeopathy.

The mother maceration is obtained with 1kg of plant, dry weight, (equivalent to 3 to 6 kg of fresh plant, depending on the humidity) in 20kg (20 liters) of solvent. First is used freshly harvested wild or from semi-culture embryonic plant tissues: young shoot, buds or rootlets. This is calculated at the complete dehydration of the plant, (rootlets are dryer than buds than are drier than young shoots). In not used high temperature that kills plant extraction, as no freezing which alters cell structure of the plant, and finally no crushing.

The Method of Dr Pol Henry: concentrated macerate Embryonic tissues or glycerol Macerated Concentrated. The Maceration is for 20 days of whole fresh buds keep entire in 33% water, 33% vegetable glycerin (plant-based coconut), 33% alcohol 96°C (extracted from organic rye), Constantly slowly agitated, and by gravity filtration recovery of 12 to 13 kg of filtrate. Extraction with light pressure Recovery of 2 to 5 kg of extract that are mixed with the extract of gravity filtration. With this method we obtain embryonic plant tissue extracts with the highest concentration of nucleic acids, amino acids, enzymes, auxins, gibberellins, proteins, mineral salts, vitamins.

The Glycerin macerate 1D or 1st D in Hahnemann first decimal Glycerin macerate 1D or 1st D in Hahnemann first decimal. In this method Fresh buds are crushed, Macerated 1:20 in 50 % glycerin 50 % alcohol at 96°, then Everything is filtrated and filtrated with pressure and Diluted 1:10 in 16 % water, 34 % alcohol (96°) 50 % glycerin.

Water extracts because water-soluble derivatives in fact water has a double action. It plays a role in transmitting the energy of the bud to which Dr Pol Henri attached great importance. It plays a role in extraction of active ingredients : Water-soluble derivatives Tannins Minerals Water-soluble flavonoids Water-soluble vitamins Some water-soluble acids.

Alcohol extract It plays a role in the extraction of active ingredients : Alkaloids Heterosides Glycosides Some acids.

Glycerin extract The vegetable glycerin is extracted from Rapeseed. Rapeseed oil is transformed by a process of di-esterification Its oil content is 50 to 68%. Glycerol plays a role in the extraction of active ingredients: Essential oils: phenols, fat soluble derivatives such as essential oils, phenols, fat soluble flavonoids, fat soluble vitamins, acid ... ,

Conclusion

There are no differences between the phytoembryotherapy -and the gemmotherapy, from the point of view of the methods of application, but returning to the original techniques defined by dr. P. Henry There are some advantages in terms of practical and therapeutic efficacy.

The advantages of this method is that we have more concentrated active ingredients, less drops to be administered, less alcohol administered. Also with phytoembryotherapy we use the three principles of prescription Biological analogic model, Clinical Model, and drainage Model. Not only to cure disease, but considering the patient, or rather the person, his life style and its environment.

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