**LEUCEMIA MIELOIDA - CONCEPTE NOI PRIVIND MECANISMUL PATOGENETIC. ROLUL BENEFIC AL ASOCIERII GEMOTERAPIEI LA PLASMAFEREZA.**

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Frontierele actuale în stiințele biologice necesită o interfață între disciplinele biologiei, chimiei și fizicii pentru a obține noi paradigme în domeniul medicinei. O cantitate importanta de informații despre modificări post-translaționale, RNA, interacțiuni moleculare, semnalizare celulară, receptori celulari, fizica cuantica, biofotonica, nanomolecule si nu in ultimul rand bioinformatica , au adus o remarcabila imbunatatire a cunoasterii si a actului medical.Existenta unei retele energetice fundamentale, care conecteaza corpurile noastre, lumea si tot ce exista in univers, deschide o usa catre posibilitati terapeutice de nebanuit. Aplicareapracticilor vindecatoare, care ne asigura supravietuirea sunt derivate dintr-o viziune cuantica unificata asupra lumii.

Tehnicile stravechi de vindecare castiga in prezent tot mai mult teren pentru ca ele continua traditia holistica, in care boala este considerata un blocaj sau un dezechilibru in fluxul energetic al forte vitale.

Leucemia mieloida cronica este o dezordine clonala a hematopoiezei, care interesează celula stem sau progenitorii ei timpurii și blocheaza procesul de diferentiere. Este –un proces mieloproliferativ, care se asociaza constant cu prezența cromozomul Philadelphia (Ph), care la randul lui este rezultatul translocatiei reciproce intre cromozomii 9 si 22, cu formarea unei noi gene BCR-ABL. Aceasta este o gena oncogena, care induce instabilitate genetica, promoveaza proliferarea si transformarea si este considerata factorul major al inducerii si cresterii celulelor leucemice.

O masiva acumulare de celule mieloide, imature și mature este constantă în maduva osoasa (MO), în splina și în sangele periferic. Comunicarea intre celulele leucemice si matricea extracelulara se realizeaza prin vezicule extracelulare (VEC) si este esentiala pentru a face progresia leucemiei. În promovarea și progresia procesului leucemic, evaziunea sistemului imun al gazdei constituie un element cheie; componentele majore de supresie a reacțiilor imune, respeectiv celula stem mezenchimala (MSC) puternic imunosupresoare, alaturi de celulele supresoare derivate mieloid (MDSC) sunt prezente constant in sangele periferic si inhiba celulele LT.

Macrofagele M2 sunt implicate în rezolutia injuriilor, sunt asociate cu inflamația cronică, procesul neoplazic și imunosupresia, producand factori solubili precum IL-10 si TGF β. Expunerea profesionala la benzen si la alte substante chimice, precum si tratamentele chimioterapice sunt asociate cu procese maligne hematologice.

Plecand de la faptul ca plasma reprezinta matricea extracelulara a sangelui, ca elementele patologice dezvotate in procesul leucemic, alaturi de factorii imunosupresori se gasesc in plama , tratmentele medicale vizand eliminarea macromoleculelor dăunătoare, care pun viața sau organele vitale în pericol, sunt de real folos.

**PLASMAFEREZA,** bazata pe separarea plasmei din sange, fara a indeparta celulele sanguine, este o metoda de tratament cu mare utilitate cand subiectii nu mai raspund la tratamentului imuno modulator si antiinflamator sau au complicatii dupa terapia cu steroizi. Mecanismul principal de actiune al plasmaferezei terapeutice consta **detoxifierea sangelui** prin indepartarea elementelor nocive organismului . Terapia cu celula stem mezenchimala (CSM) nu este inca in actualitate. Cu toate acestea, terapia cu celula stem vegetala, care sta la baza **GEMOTERAPIEI** si care are ca ingredient de baza **meristemul,** partea tanara in diviziune a unei plante, a trecut testele experimetale , clinice si de laborator si este aplicata cu success in inumeroase afectiuni.

Asocierea gemoterapiei la procedura de plasmafereza poate fi de real folos. La fel ca si in cazul **plasmaferezei, mecanismul principal de actiune** al preparatelor gemoterapice este de **detoxifiere.** In functie de diagnostic, de vechimea afectiunii, de tipul si de gravitatea leziunilor, de prezenta unor comorbiditati, si de rezultatele investigatiilor de laborator si paraclinice, se poate stabili schema terapeutica cu derivatele gemoterapice. De precizat ca medicul va stabili combinatia cea mai eficienta de gemoderivate in functie de tipul de leziune si de gravitatea bolii.

Esenta terapiei cu celula stem vegetale inseamna o interferare profunda a unor circuite metabolice aberante, care nu au mai mai raspuns necesitatii de adaptare a organismului la mediul intern si extern; avand ca instrument de interventie insasi sistemul imun al organismului supus impactului, ameliorarea comunicarii intercelulare se realizeaza adecvat, conform necesitatilor organismului.

**MYELOID LEUKEMIA - NEW CONCEPTS ON PATHOGENETIC MECHANISM. BENEFICIAL ROLE OF GEMOTHERAPY ASSOCIATED WITH PLASMAPHERESIS.
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Current frontiers in biological sciences require an interface between the disciplines of biology, chemistry and physics to obtain new paradigms in the field of medicine. An important amount of information about post-translational modifications, RNA, molecular interactions, cell signaling, cellular receptors, quantum physics, biophotonics, nanomolecules and not least bioinformatics, have brought about a remarkable improvement of the knowledge and the medical act. fundamental energies, which connect our bodies, the world and everything that exists in the universe, opens a door to unheard of therapeutic possibilities. The application of healing practices that ensure our survival are derived from a unified quantum vision of the world.
The ancient healing techniques are gaining more and more ground because they continue the holistic tradition, in which the disease is considered a blockage or an imbalance in the energy flow of the vital force.
Chronic myeloid leukemia is a clonal disorder of hematopoiesis, which interests the stem cell or its early progenitors and blocks the differentiation process. It is a myeloproliferative process, which is constantly associated with the presence of the Philadelphia chromosome (Ph), which in turn is the result of the reciprocal translocation between chromosomes 9 and 22, with the formation of a new BCR-ABL gene. This is an oncogenic gene, which induces genetic instability, promotes proliferation and transformation and is considered the major factor in leukemia cell induction and growth.
A massive accumulation of myeloid, immature and mature cells is constant in the bone marrow (MO), spleen and peripheral blood. Communication between leukemic cells and extracellular matrix is ​​accomplished by extracellular vesicles (VECs) and is essential for leukemia progression. In the promotion and progression of the leukemic process, evasion of the host's immune system is a key element; major components of suppressing immune reactions, respectively the highly immunosuppressive mesenchymal stem cell (MSC), along with myeloid-derived suppressor cells (MDSC) are constantly present in peripheral blood and inhibit LT cells.
M2 macrophages are involved in the resolution of insults, they are associated with chronic inflammation, neoplastic process and immunosuppression, producing soluble factors such as IL-10 and TGF β. Professional exposure to benzene and other chemicals, as well as chemotherapy treatments are associated with hematological malignancies.
Starting from the fact that plasma represents the extracellular matrix of the blood, that the pathological elements deviated in the leukemic process, together with the immunosuppressive factors are found in the lung, medical treatments aimed at eliminating harmful macromolecules, which endanger life or vital organs, are of real use.
Plasmapheresis, based on the separation of plasma from the blood, without removing blood cells, is a very useful treatment method when subjects no longer respond to immune-modulating and anti-inflammatory treatment or have complications after steroid therapy. The main mechanism of action of the therapeutic plasmapheresis is the detoxification of the blood by removing the harmful elements to the body. Mesenchymal stem cell (CSM) therapy is not currently available. However, plant stem cell therapy, which is the basis of GEMOTHERAPY and which has as its basic ingredient the meristem, the young part in the division of a plant, has passed the experimental, clinical and laboratory tests and is successfully applied in countless conditions.
The combination of gemotherapy with the plasmapheresis procedure can be very useful. As with plasmapheresis, the main mechanism of action of gemotherapeutic preparations is detoxification. Depending on the diagnosis, the age of the disease, the type and severity of the lesions, the presence of comorbidities, and the results of the laboratory and paraclinical investigations, the therapeutic scheme with the gemotherapeutic derivatives can be established. It should be noted that the doctor will determine the most effective combination of gemoderivates depending on the type of injury and the severity of the disease.
The essence of the plant stem cell therapy means a profound interference of aberrant metabolic circuits, which no longer answered the need to adapt the organism to the internal and external environment; having as intervention instrument itself the immune system of the impacted organism, the improvement of the intercellular communication is carried out properly, according to the needs of the organism.