

Low Level Laser Therapy the Best New Discovery to Lung Diseases and Intern Organs Injured

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The Low Level Laser Therapy (LLLT) is known almost 50 years, after the discoveries of lasers in 1960, and LLLT is related to the use of photons with non thermal irradiance, and this process could promote a biological alteration. The main use of the LLLT is to reduce pain and inflammation, tissue repair, regeneration of tissue and nerves and prevention of tissue damage [1,2].

The LLLT is related to exposure of tissue and cells at low levels of red and near infrared light. These processes is called low level because the energy or density of energy applied is low compared to another ways that laser therapy can be used, as in ablation, cut, tissue coagulation [4].

The Multinational Association of Cancer Support/International Society of Oral Oncology recently completed the process of actualization of the protocols to prevention and treatment of oral mucositis and they suggest the use of LLLT in patients in treatment with radiotherapy. These studies shown that LLLT is safe, and has anti-inflammatory, analgesic and bio modulatory effect [8,20] and the good point of this information is that this treatment is totally safe, there is no contra indication and can be used in the clinical patients, so, the doctor's don't need to be scared about this new therapy, and what the scientists of this area need's is doctor's that could believe and use together with us the new discoveries, because the unique way to get better results, doesn't matter in which pathology and cure to most complicated pathologies like cancer, is believe and work together science and medicine.

Acute respiratory distress syndrome (ARDS) is a syndrome of acute respiratory failure caused by noncardiogenic pulmonary edema. The most common clinical disorders associated with the development of ARDS are bacterial and viral pneumonia, aspiration of gastric contents, or less commonly pancreatitis and drug reactions [1]. In addition to a recent study showed that 30% of trauma patients develop ARDS [2] resulting in a threefold increase in mortality in these patients [3].

Advances in supportive care have markedly improved survival for patients with ARDS, but the mortality of ARDS remains high with approximately 25 to 40%. Despite five decades of research, there is still no effective goal directed pharmacotherapy for this syndrome, and novel treatment options are needed to improve the morbidity and mortality associated with this condition [3].

Idiopathic pulmonary fibrosis (IPF) is a progressive age- and smoking-related diffuse parenchymal lung disease resulted from chronic alveolar epithelial cell injury and defective repair and the response to that is still unknown. In addition, IPF leads to death within 2 - 5 years after diagnosis and there is no effective etiologic cure, a fact that underlines the need for novel approaches [4-6].

The most of researchers and doctor's of health research area, about de work to the pharmaceutical industry developing and testing new drugs, new markers to decrease the inflammation and recovery the health, or conduct their research in which type of cell can be modified and treat this condition in the best way, but we can't control at all the behaviors that the cells could have when we put this in different environments and diseases.

However, we have an effective and low cost, without side effects, noninvasive therapy that need to be more disseminated and used by the scientist to discover and increase the number of reliable studies and by the doctor's to be more interested in this treatment that is a discovery to manage inflammation, fibrosis, hypo and hyperreactivity without medications.

The treatment of LLLT related to cardiac problems, showed the effect of LLLT pos Coronary Bypass. The LLLT decreased blood cells counting and cardiac markers as (CPK, CPK-MB, LDH) were was evaluate before and after 3 days of treatment and LLLT decreased the cardiac and cellular injury and accelerate the restauration of cardiac tissue pos operatory and hemodynamic changes [9].

Systemic Arterial Blood Pressure is a Public Health Problem and one of the huge risks to develop neuro-cardiac diseases, however LLLT decrease the medium levels of blood pressure and the levels of diastolic pressure [10].

Chronic Obstructive Pulmonary Disease, that result in weakness and has a High Prevalence Worldwide, problem that generate high expenses to both government and family with treatments and medicines. The treatment just with LLLT or associate with Mesenchyme's Blood Marrow Cells show a reduction on lung infiltration of inflammatory cells, decrease of mucus, accumulation of collagen and tissue damage [11].

Related to ARDS, induced by diverse experimental models, Mafra de Lima., *et al.* [12-23] show the significative effect of the LLLT decreasing inflammation, increasing the production of anti-inflammatory cytokines, reduction of hyperreactivity of trachea and broch.

Even if, Mafra de Lima, was the first one to realize a dose response with LLLT in pulmonary diseases, to verify all the lung alteration and the best dose to be used in experimental and clinical studies [21].

Related to Lung and kidney fibrosis, Mafra de Lima., *et al.* demonstrated that the therapy with LLLT is effective reducing inflammation process and consequently fibrotic process and the main and important part the treatment can restore part of the injured tissue (data not published yet).

The important question to keep in our mind, what is the most important? Save lives and give the chance to new treatments, or continues with the "old school" doing prescription of a lot of medications, expend the money of government and worst the patients, that in most cases doesn't have this money, or lets everybody work together and share new techniques and knowledge to the best of patients.

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