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The Impress of Low Level Lasers in the Treatment of Patients with in Virus COVID-19 (SARS-Cov-2)

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Introduction- Coronavirus disease 2019 (COVID-19) originated in the city of Wuhan, Hubei Province, Central China. COVID-19 is caused by a novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). At present, the newly identified SARS-CoV-2 has caused a large number of deaths with Millions person of confirmed cases worldwide, posing a serious threat to public health. However, there are no clinically approved vaccines or specific therapeutic drugs available for COVID-19(1). The evidence shows that blue 450 nm light is antimicrobial against numerous bacteria, and that it accounts for Niels Ryberg Finsen's Nobel-winning treatment of tuberculosis. Further evidence shows that blue light inactivates several viruses, including the common flu coronavirus, and that in experimental animals, red and near infrared light reduce respiratory disorders, similar to those complications associated with coronavirus infection. Moreover, in patients, red light has been shown to alleviate chronic obstructive lung disease and bronchial asthma(2). LLLT can be added to the conventional treatment in COVID-19 at different stages of the disease.

Keywords: Low-level laser therapy; Covid19; laser blue; laser red; Virus; SARS-CoV-2, Corona.

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THE IMPRESS OF LOW LEVEL LASERS IN THE TREATMENT OF PATIENTS WITH IN VIRUS COVID 19 SARS COV 2

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) originated in the city of Wuhan, Hubei Province, Central China. COVID-19 is caused by a novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). At present, the newly identified SARS-CoV-2 has caused a large number of deaths with Millions person of confirmed cases worldwide, posing a serious threat to public health. However, there are no clinically approved vaccines or specific therapeutic drugs available for COVID-19(1). The evidence shows that blue 450 nm light is antimicrobial against numerous bacteria, and that it accounts for Niels Ryberg Finsen's Nobel-winning treatment of tuberculosis. Further evidence shows that blue light inactivates several viruses, including the common flu coronavirus, and that in experimental animals, red and near infrared light reduce respiratory disorders, similar to those complications associated with coronavirus infection. Moreover, in patients, red light has been shown to alleviate chronic obstructive lung disease and bronchial asthma(2). LLLT can be added to the conventional treatment in COVID-19 at different stages of the disease. Because of its anti-inflammatory effect, and ability to shorten recovery times, LLLT can reduce the need of ventilators in the healing process. Clinical trials are necessary to objectively evaluate the effect of LLLT on COVID-19 treatment and recovery(3). Blue laser light of different wavelengths has been reported to have positive effects on our immune system. in covid19 with The goal is to reduce inflammation of the lungs and increase the amount of nitric oxygen that will increase the body's immunity and improve oxygen delivery to the blood and tissues(4.5) The coronavirus has been shown to bind to the cell via the angiotensin-converting enzyme receptor, which is highly expressed in lung and heart cells. if vitamin D levels in the body are balanced, acute cases of coronary heart attack will not occur can balance vitamin D in the body with yellow laser light, And largely

prevented the virus from invading the heart and lungs(6). Effects and mode of operation of intravenous Low-Level-Laser-Therapy of the blood.

One under laser blood irradiation, anti-inflammatory effects were observed that improved the immunologic activity of the blood.

A diminishing tendency of aggregation of thrombocytes and an improved deformability of erythrocytes result in an improved oxygen supply and with that to a decrease of partial carbon dioxide pressure, which is particularly relevant to wound healing.

Furthermore, the activation of phagocytic activity of macrophages was proved in conjunction with structural modifications. A positive effect on the proliferation of lymphocytes and B- and T-cell-subpopulations could be verified too [7]. According to all studies, low-level laser, whether Therapy or intravenous, can cause the following factors for the recovery of patients with Covid 19 virus:

1. Reduce inflammation
2. Lymphocyte proliferation
3. Increase in nitric oxide
4. Increase vitamin D.
5. Increase oxygen
6. Improve the activity of red blood cells

Ethical Considerations

Not applicable.

Conflict of Interests

The authors declare no conflict of interest.

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