

Comparative effects of Biophotonic therapies in viral and microbial illness

Abstract

The recently emerged coronavirus SARS-COV-2 viral strain that has caused COVID-19 illness is a member of the Coronaviridae family, and is well known to produce respiratory, gastrointestinal and other illnesses in man and animals.^{1,2} Although the exact source or origin of the SARS-COV-2 viral strain has not yet been established, the coronavirus strain that causes Covid-19 is also genetically related to some zoonotic viruses isolated from pangolin_bats and camels, and which have previously caused respiratory illness in humans.³⁻⁵ Thus, the human infections likely could have occurred from an intermediate animal host via incidental interspecies transmission or other unconfirmed epidemiological origins as is believed to have occurred with the MERS strain. The Coronavirus Sars 2-Cov-19 pandemic first emerged in Wuhan, China on or before January 2020 and spread worldwide exponentially during the Spring to Fall of 2020.² The newly described viral illness infected millions of people globally by year's end and has continued into 2021 to the present, during which interval multiple infectious COVID-19 mutations have evolved, some with a more highly infectious potential than that of the initial virus. Continuing outbreaks of the viral mutants have emerged, often seemingly evading immunities formed from immunizations and earlier variants. Thus, the purpose of the present editorial review is to present an overview of the origins and progressive developments in the current coronavirus pandemic and to propose an application of biophotonic and bioelectromagnetic therapy as an often-effective adjunct in the treatment of potentially life threatening viral and microbial illnesses. This brief review paper concludes that biophotonic and bioelectromagnetic therapy (treatment) modalities have been utilized successfully for many years, prior to the development of antimicrobial and antiviral pharmaceutical agents as the current standard of care in common present-day therapies for infectious diseases.

Keywords: SARS, covid-19, biophotonics, energy dynamics, electromagnetic therapy, immunomodulation, infectious illnesses

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Abbreviations: mRNA, messenger ribonucleic acid; NIDDM, non-insulin-dependent diabetes mellitus; BMI, body mass index; TNF, tumor necrosis factor; ACE, angiotensin-converting enzyme

Introduction

Scientific research of RNA coronaviruses has been developing since year 1999 or earlier and became further intensified with the onset of Covid-19 in the current pandemic.⁴⁻⁷ These research studies culminated in numerous clinical trials of multiple newly developed COVID-19 vaccines in 2020, some using the recently developed mRNA and other molecular models, and with recommendations for booster shots that encompassed epitopes of some of the more prevalent mutants by fall 2021 including events following original vaccination or previous live infection.⁵⁻⁸ Reinfections often occur in part due to the apparent transient nature⁸ of the immediate immune responses following vaccination or infection.⁸ Those individuals at greatest risk include persons 65 or older and with individuals who also present with comorbidities including overweight, obesity, hypertension, and adult onset diabetes in addition to numerous other metabolic and respiratory disorders. Those deemed at greater risk typically require additional emphasis for early treatment in an attempt to limit post infection sequelae including the development of long Covid, where a variety of symptoms may persist for a year or more following Covid-19 infection.⁸⁻¹¹ Because the prevalent clinical symptoms of Covid-19 infections often overlap for patients with chronic autoimmune diseases, obesity, and other common comorbidities, care must be taken to address and identify the specific symptomatology as accurately as possible, as the pathophysiologic processes of Covid-19 and other comorbidities may differ, and thus one may discriminate among the

possible therapeutic regimens that may be prescribed. Numerous common symptoms that have contributed to reported coronavirus patient deaths may complicate an accurate diagnosis in the absence of immunodiagnostics, and among those who have tragically succumbed, some cited Covid-19 as the direct primary cause, while for many others, the pathophysiologic sequela of Covid-19 were additive to a pre-existing comorbidity as contributing factors to the patient's demise.¹⁰⁻¹³ Thus laboratory findings that may be common to multiple disorders, including increases in plasma availability of inflammatory cytokines now established to be common pathophysiologic entities in multiple disorders, and when present may complicate or cloud a more accurate or precise diagnosis in the absence of virus-specific serologic analysis.¹³ The present Editorial is based on retrospective analysis and review of patient outcomes using biophotonics and bioelectromagnetic therapies as a primary treatment regimen for patients with confirmed HIV, antimicrobial resistant Staphylococcus aureus, and other infectious illness in the Einstein Medical Laboratories Clinic in the Dominican Republic since year 2000.

Objectives, method and research

The objectives of this editorial were to review the overall effectiveness of the Einstein Adjuvant Energy Dynamics method which incorporated biophotonics and bioenergetics elements in the treatment and symptomatic amelioration of illness for the treatment of viral and microbial infectious illness in a clinical setting. The complexity of the pre-existing physical and physiological biological variables is evident among most patient histories and symptoms. The Einstein Adjuvant Energy Dynamics method¹²⁻¹⁴ of the present overview includes: 1). Psycho-Video Diagnostic assessment

followed by and Psycho Video Therapy; 2). Biophotonics therapy via standardized protocols, and 3). Electromagnetic Alternating Current Dynamic Therapy. The effective coherence of Sigma Quanta Energy Dynamics supports the theory of Human Bioenergetics and Natural Homeostasis Systems of Biophysical and Biochemical Therapy and as may be applied to treatment of Viral, Bacterial, and Fungal infections.^{13,15} To apply electromagnetism to defeat coronavirus infections, the physical methods summarized could avoid the often unpredictable pitfalls of the chemical-based therapeutic approaches.¹⁴ The specific Biophotonics and Electromagnetism therapy was applied for the therapy of HIV/Aids, Hepatitis C and tomethacillin-resistant *Staphylococcus aureus* infections at the Einstein Clinical Laboratories Case Studies Research in the Dominican Republic during the years 2001-2003. The specific wavelengths and dosages applied remain privileged, proprietary information of the Einstein Medical Institute. During this research, a highly elevated level of success was attained, and without reports or observation of occurrence of adverse effects after conducting the psycho-diagnostic and therapeutic evaluations, which were followed up by 4 weeks of repeated biophotonic and electromagnetic treatments within a one-month timeframe.¹³⁻¹⁶

Results

The video Psycho-Diagnostic and Therapeutic method has the potential to make an early assessment of patients regardless of their level of advancement and stability of their illness and to better estimate the magnitude and duration of treatments deemed necessary to resolve their illness.¹⁴⁻¹⁸ In addition, the proposed approach may effectively address the emotional and intuitive elements of Sars-2-Covid 19 and other infectious illnesses to develop individualized strategies that may improve their mental well-being during and after recovery of the patient. The effective applications of electromagnetic potential therapies added to the biophotonic therapy for Sars 2-Covid 19 requires additional research via both *in vitro* and *in vivo* methodologies, as was utilized while conducting the earlier case studies on HIV/AIDS, Hepatitis C and *Staphylococcus aureus* in Dominican Republic Einstein clinic during a three year duration of observation years (2001-2003) in the cited clinic.^{13-16,19} Circulating inflammatory cytokine levels became decreased following the biophotonic treatments, and immunologic functions demonstrated improvement as patients recovered from the viral and microbial infections.^{14,16-18}

Discussion

According to Einstein Medical Institute of the Dominican Republic and subsequent case studies, the research results demonstrated that the combined impact of bioelectromagnetic and biophotonic therapeutic treatments for RNA Virus and antibiotic resistant *Staphylococcus aureus* infection therapy were effective in decreasing the viral and bacterial loads, decreased the generation of inflammatory cytokines, and diminished the magnitude of the pathophysiologic sequela of the infections.^{13-16,19} In addition, because the biophotonic and biomagnetic treatments resulted in enhancement of immunologic parameters indicates that this therapeutic approach may be an efficient, timely and cost effective clinical option to treat the complexity of COVID-19 infection.²⁰ This therapeutic approach may reduce both the magnitude of acute infection and its consequential longer-term sequela during both active and convalescent periods of microbial and viral infection to include the symptomology of long-Covid and antimicrobial resistant *Staphylococcus aureus* infection. As with prescribing a treatment regimen for any infectious disease, early intervention is highly preferable and is likely to result in more complete recovery and

a decreased magnitude of comorbidity of exacerbations secondary to viral or microbial induced illness.⁸ In as much as biophotonic and bioelectromagnetic therapy is not substantially reliant on allopathic drugs or medications, it emerges as a most cost effective approach to manage and treat viral and microbial infectious illnesses globally without the overwhelming financial impact on institutional resources.

The molecular or biochemical mechanisms through which therapeutic biophotonic and magnetic exposure may ameliorate the infectious load and magnitude of infections remains speculative. Ultraviolet light is known to be viricidal and microcidal^{14,15} and to exhibit the capacity to impact structural damage to RNA and nuclear polymers, thereby likely impairing their regeneration and continued viability. In a recent study, biophotonic therapy was also found to improve hemoglobin oxygen saturation as indicated by increases in blood pO₂ within minutes after the onset of the biophotonic treatment with complete symptom resolution within 72hours, thereby impacting on the redox potential of the perfused tissues.²⁰

Obesity, along with NIDDM, hypertension, respiratory, disordered bioenergetics, and other comorbidities, is a significant risk factor in the progression of complications in covid-19 illness in both vaccinated and unvaccinated individuals.^{10,19} The coronavirus causing Covid-19, SARS-CoV-2 has some similarities to the emergence of earlier reports of other zoonotic coronavirus illnesses including MERS and SARS which also caused respiratory illness in humans.³⁻⁵ The origin of SARS-Cov-2 remains unclear, but appears to have originated in Wuhan, China in late 2019 as a local epidemic but within a few months had spread throughout the globe and was declared a pandemic by the WHO within three months of its first report to the WHO in December 2019.^{2,17,18,20,21} Because the virus enters mammalian organ systems via ACE2 receptors of receptive tissues of the respiratory, gastrointestinal, cardiovascular, neural and other tissues and organs.²¹ Thus, the virus can interact with the infective spike protein domains of the virus in multiple organs and tissues including the visceral, adipose tissues. Once the adipose tissue becomes infected, it initiates the release of inflammatory cytokines including IL-6, TNF and others which can lead to a serious and an often-fatal cytokine storm.¹² Since human obesity develops via hyperplasia and hypertrophy of preadipocytes, the adipocytes once differentiated retain their cell surface receptor domains and intracellular biosynthetic functions thereafter, similar to the receptive surfaces of tissues of other organs. The increased adipose mass thus formed, especially when combined increasing BMI, glucose intolerance, and an increased visceral adipose tissue mass and additional comorbidities often including NIDDM, IT appears to reflect a proportionately greater risk of cytokine mediated COVID-19 complications.^{8,10}

Once receptive tissues become infected with the virus, the intracellular viral replication occurs rapidly and may spread to other receptive tissues including adipose and other tissues, while immune responses tend to lag behind the viral replicative events.^{5,12} In severe cases, death may occur due to a combination of the additive impact of the virus and comorbidities, and the more advanced the individual or multiple comorbidities, the more severe magnitude of illness may occur.^{8,21} Restoration of a healthy BMI in obesity is typically a gradual and often unrewarding process, and often only temporary in duration as weight regain occurs easily when therapeutic regimens are discontinued. While weight loss toward a normalization of BMI and an otherwise healthy weight is associated with smaller adipocyte size and corresponding adipocyte surface area can decrease the relative risks for other comorbidities over time, the magnitude of risk reduction for COVID-19 following weight loss remains unclear. In

non-adipose tissues, the ACE2 receptors remain present and active, likely facilitating reinfection by older and mutated epitopes of the spike proteins only months following active infection or immunization.^{21,22}

Conclusions

In conclusion, NIDDM, overweight and obese conditions that increase visceral fat deposition and ACE2 receptor sites may progressively increase the relative risk for the most severe complications of the COVID-19 illness. Early intervention via biophotonic and bioelectromagnetic therapies may provide a useful adjunct in the treatment of viral and microbial infections, especially those infections where pharmaceutical agents may be ineffective. Thus, the coherence of Sigma Quanta Biophotonic/Electromagnetic Immunostimulation therapy via potentiation of adjuvant energy dynamics in SARS-2-COVID-19 and other viral and microbial infections may become a useful strategy to decrease the magnitude of pathophysiologic sequela that may follow the infectious process. Future studies are recommended to further evaluate and quantify the clinical benefits that may be obtained by applying biophotonic and bioelectronic therapies, and to determine the minimally and maximally effective ranges of dosages of biophotonic and biomagnetic applications required to treat such illnesses in the most effective, efficacious and beneficial manner.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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