LECTURE 61

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Persistent Spike Protein: The New Myocarditis

Presentation Overview

- Pathophysiological basis of all disease
- Promotors of all disease
- Foundational disease treatment principles
- Myocarditis, pre-pandemic and now, clear-cut and subclinical
- Spike protein pathophysiology—from COVID and/or from the vaccine
- Need for proper testing and treatment, including individuals with "resolved" COVID and/or asymptomatic post-vaccination
- Resolving Persistent Spike Protein (PSP) syndrome, AKA Chronic COVID

Reference Checking

Go to:

http://www.ncbi.nlm.nih.gov/pubmed/

In the PubMed search box, enter the seven or eight digit number, by itself, at the end of each reference in this presentation. This is the PubMed Identifier (PMID) number

Then click on "Search" and you will go directly to the Abstract of that article, or for a few articles, you will have access to the full article. If there is no PMID number, it is not available on PubMed.

The Cause of All Disease: A Unified Theory

The onset and evolution of **all** diseases, as well as all of the associated symptomatology, is caused by, and/or mediated by:

Increased

Intracellular Oxidative Stress (IOS)

Increased IOS exists when the production of free radicals (highly reactive pro-oxidants) exceeds the body's antioxidant capacity to neutralize (reduce) them, or to prevent their production in the first place. Elevated IOS **always** exists where there is a deficiency of antioxidants, an excess of free radicals, or both [16760481].

Redox Medicine Principles

The essence of redox (reduction-oxidation) medicine is really the essence of vitamin C-based biochemistry.

Toxic Pro-oxidant (aka "toxin")

Takes, or causes to be taken, electrons away from reduced (normal) biomolecules (OXIDATION) [And **KEEPS** it]

Antioxidant (vitamin C is the prototype)

Gives (or restores) electrons back to oxidized biomolecules (REDUCTION); unlike REDUCED Toxic Pro-oxidant

Redox Medicine Principles

The basic redox nature of vitamin C and the pro-oxidant nature of all toxins concisely explains why vitamin C, along with many other antioxidants, has been documented to be an effective ***antitoxin*** against ***all*** toxins for which it has been tested, *in vitro* and *in vivo*, in plants, animals, and humans, and including clinical studies.

Properly administered vitamin C has never failed to neutralize an acute pro-oxidant/poison/toxin exposure or ingestion

Redox Medicine Principles

Even though there is a tremendous variety of molecular structure among all of the known toxins, they ALL SHARE the property of taking, or causing to be taken, electrons from other molecules, oxidizing them, RETAINING those electrons, and resulting in an overall state of increased oxidative stress.

If a molecule does not cause the loss of one or more electrons from another molecule it **IS NOT TOXIC**, and it **CANNOT BE TOXIC**. Toxicity and any symptoms of toxicity cannot exist in the absence of oxidation (depletion of electrons from biomolecules).

Redox Medicine Principles

However, the PRIMARY parameter of toxicity is not just that the toxin steals an electron from a biomolecule, but that it **RETAINS** it and never surrenders it again. This differentiates a **pro-oxidant toxin** from a **oxidized antioxidant**, which is also a pro-oxidant by definition. Acquiring the electron stabilizes the toxin, whereas the antioxidant and oxidized antioxidant have near equal chemical stability and **very readily transition from one form to the other**.

Optimal antioxidation invokes a **heightened, continuous relay of electrons** throughout the cell, resulting in actual MICROCURRENTS, and optimal transmembrane voltages. Pro-oxidant toxins (versus pro-oxidants that are oxidized antioxidants) are MICROCURRENT BLOCKERS.

Redox Medicine Principles

Contrary to what it commonly believed, the primary impact of an antioxidant such as vitamin C to **general health and healing** is not the "new" electrons that it brings into the body. Rather, it is the bolstering of the overall vitamin C content in the body that allows an **optimal, ongoing electron distribution and flow** of the **electrons already present** in the cells and tissues.

In animal studies, vitamin C administered in its ***oxidized*** form (DHAA) readily minimizes brain infarct size from induced ischemic stroke. Furthermore, the DHAA promptly ended up INCREASING the quantities of reduced vitamin C metabolized in those brains [26968905, 16883179, 11573006, 19266157].

Redox Medicine Principles

Confusion about DHAA (oxidized vitamin C) partially stems from the observation that elevated levels of DHAA are routinely seen in patients with significant and advanced infectious diseases. However, this does not mean that the DHAA itself is toxic, but only that elevated levels of it generally reflect states of advanced oxidative stress and body-wide electron depletion or entrapment in the associated pro-oxidant infection metabolites.

This also means that a solution of vitamin C ***loses no significant clinical potency*** as it oxidizes and becomes yellow, as long as significant further degradation of the DHAA has not occurred. And this means that vitamin C solutions can be sipped on over many hours without concern for loss of vitamin C potency, and much higher percentage of the total vitamin C content will be assimilated since small amounts are taken frequently rather than a multigram dose of it all at once.

Redox Medicine Principles

Methylene blue, another antioxidant with striking clinical parallels to vitamin C in its effects, rapidly resolves advanced infections, **including septic shock secondary to COVID**, when given in either its oxidized or reduced forms [32435102, 21246318, 8977944, 34399199]. Of note as well is that methylene blue has resolved such cases of advance as a monotherapy when all else has failed.

In fact, most PubMed studies primarily describe the positive impact of **reduced** vitamin C and of **oxidized** methylene blue, clearly indicating that the **electron distribution capability of a given antioxidant** is as important as new electron intake from dietary nutrients.

Redox Medicine Principles

The ability of an antioxidant to surrender its electron(s) to a toxin and neutralize it oxidizing electron "hunger" is of greatest clinical significance when there is an acute toxin load circulating in the blood. Otherwise, it is not necessary to administer various antioxidants in their reduced form to realize a positive clinical impact.

However, it is how easily the oxidized antioxidant gives up the electrons that is reacquires that determines its **overall clinical utility**, whether for a toxin presence, an infection, a chronic degenerative disease, or the support of general health. This utility is optimized when the antioxidant is small, water- and fat-soluble, and readily accesses all subcellular organelles as well. For example, methylene blue is exceptional in its ability to cross the BBB, concentrate in nervous tissue, and further target poorly functioning mitochondria.

Redox Medicine Principles

1. All disease, then, **IS** the state of oxidation in biomolecules. No disease exists in the absence of this state of biomolecule oxidation.
2. Biomolecules (nucleic acid, proteins, enzymes, sugars, fats, etc.) are **inactive** or **less active** when oxidized, and **optimally active when reduced**.
3. Therefore, the unique nature of any disease process depends solely on how many biomolecules are oxidized and where they are located and concentrated, nothing more. In other words, **any** disease depends on the degree to which vital biomolecules have become inactivated (oxidized). When electron flow is optimized, biomolecules spend much less time in their oxidized state.

Redox Medicine Principles

The **PHYSIOLOGICAL GOAL** of all clinical protocols is to normalize as completely as possible the intracellular oxidative stress (IOS) in all cells involved in the infection and/or disease process. This is **always achieved** when intracellular levels of reduced vitamin C are optimized. When this occurs, it is always in the setting of **decreased cellular calcium** and **increased cellular magnesium**. And when these three agents are brought to normal, normal glutathione levels are promptly restored as well.

When the intracellular vitamin C is returned to a normal level and maintained there, that cell is once again **physiologically normal**, and no longer playing a contributing role in any infection or disease process.

Prominent Promoters of Chronic Degenerative Diseases

1. Infections (endotoxins, exotoxins, aerobic and anaerobic metabolic byproducts, **dental**); documented to strongly promote oxidative stress and lessen antioxidant capacity; focal infections anywhere in the body
2. **Chronic pathogen colonization** (especially aerodigestive tract, including sinuses, mouth, pharynx, and upper respiratory tract)—**THE PRIMARY** reason for leaky gut, abnormal microbiome, and **MOST** chronic digestive disorders.
3. Known exogenous toxin exposures (heavy metal, pesticides, etc.)
4. Toxic **iron** status (most people in "reference or normal" range are toxic); also calcium and copper
5. Dietary toxin exposures (food "enrichment", constipated gut, *Clostridium*); inadequate/poor nutrition and/or poor digestion; poor digestion is **worse** than poor nutrition in terms of overall negative impact on the antioxidant capacity of the body
6. Hormone deficiencies (sex, cortisol, **thyroid**)

Optimizing Intracellular Vitamin C

The clinical response of combined vitamin C-cortisol applications (IV great, oral still excellent) is generally ***stunning*** relative to other treatment modalities for nearly all medical conditions, but ***especially new-onset infections***.

The FIRST LINE treatment of any new infection should be large doses of VC matched with sizeable doses of cortisol.

It is important to realize that this effect is **optimized at the early stage** of an infection. For lesser infectious challenges, 5 grams of VC with 20+ mg hydrocortisone several times throughout the day). But ***cortisol only*** and not other synthetic corticosteroids.

In advanced sepsis, there is already a compensatory high level of circulating cortisol "trying" to bind oxidized intracellular glucocorticoid receptors. At this point, the patient needs **no further cortisol**, but just large doses of vitamin C, on the order of 25 grams every six hours intravenously, or more.

Optimizing Intracellular Vitamin C

Remember that restoring deficient natural hormone levels is not "prescriptive pharmacological medicine," but classic Orthomolecular Medicine (**Restoring a deficient biomolecule or natural agent**).

Furthermore, you never get hormone excess side effects when you are working to restore a hormone deficiency. Instead, you just get benefits. **But you will sustain/worsen illness with an uncorrected hormone deficiency**. Hormone deficiencies must always be properly addressed. Great harm comes from either hormone **deficiency or excess**.

Treatment Principles for All Chronic Degenerative Diseases

1. **Prevent/minimize** new daily toxin exposure (environmental, dental, dietary, digestive)
2. **Neutralize** toxins already present in the body
3. **Excrete** toxin stores in a non-toxic, or minimally toxic, manner (detoxification will always cause some **re-toxification**)
4. **Resolve** infections and pathogen colonizations; OR take the measures needed to KEEP FOCAL INFECTIONS FOCAL
5. **Supplement optimally** to maximize the antioxidant/nutrient status of the body as completely as possible
6. **Address hormone deficiencies**, especially of testosterone, estrogen, thyroid hormone, and cortisol

What Has Vitamin C Already Been Proven to Do Against Pathogens?

1. Kill/inactivate all viruses ***in vitro*** against which it has been tested.
2. Clinically resolve all ***acute*** viral syndromes (***in vivo***) for which it has been adequately dosed. Prominent examples:

   Polio: Vitamin C cured acute polio (60 of 60 cases) [Klenner, 1949]

   Hepatitis (acute):

   Initial Rx was 500 to 700 mg of VC/kg body weight by vein, given every 8 to 12 hours. As well, a minimum of 10,000 mg VC orally every day. Routinely, resolution was seen in 2 to 4 days.

   Klenner also resolved acute hepatitis with 5,000 mg of VC every four hours or so orally. Complete resolution was achieved in 4 days, utilizing a total of about 120,000 mg given.

What Has Vitamin C Already Been Proven to Do Against Pathogens?

Dramatic example:

Comatose New Zealand farmer with H1N1 “swine flu” directly prior to having life support discontinued (2010). See:

https://www.youtube.com/watch?v=GApXBaZuw14

What Has Vitamin C Already Been Proven to Do Against Pathogens?

2. Resolve all ***acute*** viral syndromes for which it has been adequately dosed. Prominent examples:

   Measles (simple and complicated)

   Mumps (simple and complicated) [18147027]

   Chickenpox [14908970]

What Has Vitamin C Already Been Proven to Do Against Pathogens?

3. Documented efficacy in non-viral infections.

Diphtheria, tetanus, staphylococcus, streptococcus, pseudomonas (all documented as ***curable*** with vitamin C therapy)

Malaria (very positive responses to very low doses)

Leprosy, typhoid fever, brucellosis, trichinosis

Dysentery (amebic and bacillary)

Trypanosomal infections (Chagas' disease)

What Has Vitamin C Already Been Proven to Do Against Pathogens?

4. Definite benefits/sometimes cure in the following:

Lyme, AIDS, ***chronic*** hepatitis

"Embedded pathogens;" vitamin C (or any other agent) cannot work optimally without physical access to the pathogen **[Does "embedded" also apply to Persistent Spike Protein (PSP) syndrome? PROBABLY]**

Common cold; a very high requirement of vitamin C needed for the total quantity of virus usually present

Tuberculosis; slow-growing, slow-reacting; massive amount of literature documenting benefits of C for this

Pertussis; combination infection/toxin

What Has Vitamin C Already Been Proven to Do Against Toxins?

Documented as the **ultimate nonspecific antitoxin and poison antidote**, *in vitro* and *in vivo*:

1. Toxic elements (mercury, lead, chromium, arsenic, cadmium, nickel, vanadium, aluminum, fluorine)
2. Venoms (snake, spider)
3. Alcohol [3304067]
4. Barbiturates [5899011]
5. Toxic mushrooms[6200941]
6. Pesticides, six different types
7. Strychnine, tetanus

What Has Vitamin C Already Been Proven to Do Against Toxins?

NO toxin has ever been reported in the literature that cannot be neutralized by vitamin C. This applies to all acute toxic pro-oxidant exposures, as well as all acute infectious diseases, which are really just a ***variation on a potent, acute toxin exposure***. Of note, while effective against all acute infectious diseases and acute toxin exposures, vitamin C has repeatedly been shown to be quickly and profoundly effective **ESPECIALLY** against viral infections.

Optimizing Intracellular Vitamin C

All diseases are due to increased intracellular oxidative stress (increased IOS).

This is characterized by:

- Increased intracellular calcium
- Decreased intracellular magnesium
- Decreased intracellular vitamin C
- Decreased intracellular glutathione

Optimizing Intracellular Vitamin C

When intracellular vitamin C levels can be restored to normal, intracellular oxidative stress levels are returned to normal physiological levels, and the cell is once again NORMAL.

Cortisol (hydrocortisone) [**NOT synthetic analogues**] works to avidly promote the cellular uptake of extracellular vitamin C after it binds to intracellular glucocorticoid receptors. Most people with chronic degenerative diseases are **at least** minimally deficient in cortisol production from their adrenal glands.

Those who contract infections that do not resolve for extended periods of time are severely deficient in adrenal cortisol production, along with sufficient vitamin C available to be ushered into the cells.

All treatments that do not ultimately support the final goal of normalizing intracellular vitamin C are ultimately inadequate in resolving infection or disease.

Optimizing Intracellular Vitamin C

The stress response to infection and toxins results in the prompt release of cortisol into the blood. This SHOULD be matched by a large release of vitamin C from the liver (but L-GULO is not working) and USING UP the increased glucose that the cortisol surge is also provoking. Instead, the stress cortisol response ("fight-or-flight") is only as effective as the amount of vitamin C available to the cortisol from diet or supplementation, along with how much vitamin C is present to be released from the adrenal glands (where VC concentration is high). In fact, the response to increased oxidative stress in the blood occurs **first with VC release** from the adrenals, rapidly **followed by the release of cortisol**.

Optimizing Intracellular Vitamin C

Without more vitamin C, however, the stress response quickly burns out and the small VC storage in the adrenals is spent. Treatments with agents such as prednisone quickly reach this burn-out point, and the long-term effects of very high NON-PHYSIOLOGICAL pharmaceutical steroid dosing becomes manifest. Also, the half-life of cortisol makes it much more PULSATILE than any of the other synthetic corticosteroids with very long half-lives. All healthy metabolic pathways are optimized by having a waxing-and-waning, or frankly pulsatile nature, and this is NEVER realized with prescription, non-physiological corticosteroid therapy.

Coronavirus Infection

COVID Delta: Quite different from regular influenza (severe lung inflammation, often with severely decreased oxygenation not immediately associated with clinical respiratory insufficiency/failure) [as determined by pulse oximetry]

COVID Omicron: Typically no hypoxemia, but severe fatigue; lack of potentially severe lung involvement the reason for very low mortality rate.

Both variants can result in the **complete loss of taste** with some individuals getting persistent foul tastes in their mouths. This can resolve with the infection or have the capacity to persist indefinitely.

Many other variants now exist, with even more on the horizon, mandating the need for effective, non-specific treatments.

Coronavirus Infection Symptoms

1. Asymptomatic to severe symptoms. Delta very contagious [32230900, 32163698, 32266381] Omicron even more contagious
2. Headache, weakness, ill-defined feelings of just "not being right"
3. Chills and sweats (fever)
4. Loss of smell, taste, and appetite
5. Diarrhea and digestive-related symptoms (according to Chinese doctors, the main complaint in nearly half of their patients); this is largely due to the **chronic swallowing of virus-related toxins**
6. Shortness of breath, the most dire of symptoms (Delta), often rapidly progressing to respiratory failure (ARDS with pulmonary edema-like presentation), ESPECIALLY when no effective antiviral agents have been properly administered.

Magnesium Chloride and Infection

Infection (infectious disease) resolution

Dr. Neveu in France in the 1940s reported on the treatment of 15 cases of polio, ages 20 months to 47 years-old, with oral magnesium chloride solution. The diagnoses of the polio were clear-cut, and the clinical responses always prompt and dramatic. Acute polio was cured in as little as 24 hours, and chronic polio infection contracted as long as 4 months before Mg treatment responded dramatically as well. Muscular paralysis also responded extremely well, sometimes with complete resolution even though complete flaccidity had already been present for months.

Depending on age and body size, the magnesium chloride solution was a 2.5% solution [25 grams in 1000 cc of water], 15 to 125 cc orally every six hours.

Coronavirus Infection Prevention/Rx

A quality supplementation regimen:

1. Vitamin C, 2 grams four times daily (if not four doses, then 3 grams t.i.d.). If active infection is being treated, add 10 mg hydrocortisone orally to each dose of vitamin C. Liposome-encapsulated vitamin C is especially beneficial
2. Any magnesium up to a gram daily or more if well-tolerated. For infections, probably the **BEST** would be:

   Magnesium **chloride** solution: Depending on age and body size, the magnesium chloride solution was a 2.5% solution [25 grams in 1000 cc of water], 15 to 125 cc orally every six hours, depending on body size (Very anti-viral, has cured polio as readily as vitamin C) [Chloride, NOT sulfate]

Coronavirus
Infection Prevention/Rx

3. Vitamin D, 5 to 10,000 units daily
4. Zinc, 25 to 50 mg daily
5. Any other quality vitamin, mineral, or nutrient-based supplements that you already have, as they all ultimately provide additional antioxidant presence at the molecular and cellular level, which is always critical in resolving any infection
6. **Periodic hydrogen peroxide nebulization**
7. Ivermectin/hydroxychloroquine/chloroquine, low and infrequent for prevention; higher dosing for cure
8. For treatment (vs. prevention), any **bio-oxidative therapy** (ozone, ultraviolet, hyperbaric)

Coronavirus
Infection Prevention/Rx

Hydrogen Peroxide Nebulization

As it is a completely non-toxic therapy, nebulization can be administered as often as desired. This not only kills whatever chronic pathogen colonization is present, it very readily stops and eliminates the contraction and proliferation of a virus after a new onset exposure of sufficient quantity. The hydrogen peroxide should be 3% or a lower concentration, depending on patient tolerance (stinging, burning).

As long as the pandemic is ongoing, this nebulization can be done daily, even if you feel great, for a **minute or two**. It can also be repeated as often as possible for prophylaxis after having to go somewhere outside of your home, as to shop for food, or whenever you feel you might have had a significant exposure, or when living with someone who has COVID (or any other respiratory infection)

Coronavirus Infection Treatment

The peroxide nebulization is also extremely useful as a **adjunct** to all other beneficial interventions in treating **any stage** of coronavirus or other respiratory viral syndrome. When the sinus, oropharynx, nasopharynx, throat, and upper respiratory tract have been cleared of virus, the rest of the body can recover much more rapidly, as **newly replicating virus is no longer occurring in the nose and throat**. Antiviral agents, like vitamin C, are vastly more effective when large amounts of new virus are not being replicated and released into the body.

The nebulization effectively **"chops off the head of the viral snake."**

HP Nebulization Stunning Anecdotal Results

As a stand-alone therapy, HP nebulization has been reported to ***cure 20 out of 20 advanced COVID cases*** in Cali, Colombia. Most of the patients had already developed significant respiratory difficulty when treatment was initiated.

3% HP for 30 minutes three times a day for 5 days was the regimen used on all patients. Rapid easing of breathing was noted shortly after the initiation of the first nebulization (nebulized HP rapidly increased blood oxygen levels significantly). Although some quickly noted some nasal irritation with the 3%, they noted such a prompt easing of their breathing that they declined to have the concentration lowered. Most had the concentration lowered to 1.5% for the last three of the five days of treatment. Seven of the 20 patients had opted earlier for COVID testing, and all of them were positive.

Hydrogen Peroxide, the Ideal Anti-Pathogen

1. HP is the body's all-purpose antibiotic and anti-pathogen agent, literally designed by nature. It destroys pathogens both inside the body and outside.
2. HP is a tiny **nonionic** molecule that readily passes through the membranes surrounding cells ***and*** pathogens. It is continuously generated throughout the body, and it is always present inside and outside of the cells [11327318]
3. Although commonly regarded as being unstable and highly reactive, HP is actually **quite stable** and only becomes a reactive, oxidizing agent under specific local circumstances, especially in the presence of pathogens with a local acidic microenvironment [11108833]

Hydrogen Peroxide, the Ideal Anti-Pathogen

4. HP has been shown to inactivate/kill all pathogens (viruses, bacteria, fungi), including biological warfare agents such as anthrax spores [6822428, 9327555, 21418259, 24656442, 20028249]
5. At the levels found in the body, and at the doses recommended for nebulization, HP has **NO TOXICITY**. (Note that some pharmaceutical drugs are toxic and occasionally fatal even when ***properly dosed and administered***)
6. After pathogens have been killed by HP, the only remaining substances are WATER and OXYGEN. This means the HP not only kills all pathogens, it leaves behind the previously infected area in an OXYGENATED and HYDRATED state, a ***ideal environment*** for the rapid and complete healing of the tissue damaged by infection. **The water production also promotes mucus production to help clear out pathogen debris**.

Hydrogen Peroxide, the Ideal Anti-Pathogen

7. Reflected in its metabolic breakdown to water and oxygen, HP effectively serves as an ***oxygen-storing agent*** in the body, ready to deliver oxygen locally when needed. When inhaled, HP will increase blood oxygen, effectively serving as an emergency replacement for the direct administration of oxygen by face mask or nasal cannula.
8. HP is naturally present in the urine and helps to protect against urinary tract infections [2318421]
9. In the cells that line the airways in the lungs, HP is ***naturally expressed*** from these cells in order to provide natural HP in the airspace as well as to literally ***coat the lining of the airways*** [32378817]. This serves as a protective barrier against new pathogens encountered in normal breathing.
10. HP is naturally present in the exhaled breath, and when a respiratory infection/inflammation is present, there is a greater amount of HP in the exhaled breath [9727806]

Hydrogen Peroxide and Vitamin C: Physiological Partners

While vitamin C combats infections via support of the immune system by multiple mechanism, its **direct pathogen-killing capacity is mediated by hydrogen peroxide**.

Pathogens thrive on iron, and more iron facilitates more aggressive growth.

Iron chelators decrease pathogen growth.

Hydrogen Peroxide and Vitamin C: Physiological Partners

In virus-infected cells, vitamin C donates an electron to Fe3+ to make Fe2+. The Fe2+ then donates that electron to cytoplasmic HP, forming the ultimate oxidizing agent, hydroxyl radical (**Fenton reaction**). This ultimately results in cell/pathogen necrosis and/or cell apoptosis.

Furthermore, in the extracellular space, high-dose vitamin C ***massively upregulates HP production*** [16157892] This HP then readily diffuses inside the cells and pathogens, further supplying the "fuel" for vitamin C to continue to produce hydroxyl radicals until pathogen or host cell death finally occurs.

Chronic Pathogen Colonization (CPC)

There are three basic forms of clinical pathogen presentations:

1. **Body-wide**, as with the viral presence in influenza, or one of the infectious diseases of childhood
2. **Focal and concentrated**, associated with, or capable of generating, identifiable accumulations (abscesses), e.g., infected teeth
3. **Chronic pathogen colonization** (CPC), a less focal area of pathogen growth, and with overall lesser concentrations of pathogens, typically "protected" from eradication by persistent biofilms, which can increase the resistance of the pathogens 1,000-fold to some antibiotics [29235402]

Chronic Pathogen Colonization (CPC)

CPC generates toxins and pro-oxidant pathogen metabolic byproducts "24/7" (including a large amount of free iron), and these are continually swallowed, **making the maintenance of a normal gut flora (microbiome) impossible as long as the CPC persists**.

Is a "Leaky Gut" Really a Chronic Disease?

The intestinal epithelial cells have one of the highest turnover rates anywhere in the body, with intestinal stem cells working to have each epithelial cell replicated anew between every 3 to 5 days [32567155]. This also means that when an "old" cell is once again replicated, the contribution of that cell to a leaky gut ceases, as it begins its existence providing a renewed normal barrier function with other regenerated cells before new toxic oxidation takes place.

Is a "Leaky Gut" Really a Chronic Disease?

This begs the question: Is leaky gut syndrome really a chronic disease, or the ***chronic presence*** of ***ongoing acute toxin exposures***? It would appear to be the **latter**.

The evidence is continuing to emerge that when you **stop poisoning the newly generated cells with swallowed products of CPC**, even a long-standing leaky gut, or other chronic gut diseases (some described medically as "incurable") can completely heal, and often quite quickly.

CPC: a Common Cause for Gluten Sensitivity and Food Allergies?

Gluten, peanuts, and many other food products are proteins. If they are contained in the gut until the proteases break them down into their constituent amino acids prior to absorption, they provide nutrition and nothing else. However, when partially digested or intact proteins are taken into the lymphatics and venous blood because of chronically compromised intestinal barrier function, autoimmune responses are logical outcomes and ***to be anticipated***. And when the "chronic supply of acute insults" are never addressed, the clinical appearance is one of just another chronic disease or condition.

Chronic Pathogen Colonization (CPC)

Once present, **CPC generally persists indefinitely**, due to tenacious biofilms, and this "pathogen residua" of a cold or a bout of influenza can persist, literally for life, until specific measures are taken to eradicate it.

The presence of a significant degree of CPC is an important additional factor in determining the clinical responsiveness of a patient with a newly acquired COVID infection. Effectively eliminating CPC is a major factor in determining how quickly and completely someone can recover from COVID-19 or any other respiratory virus, as well as how effectively initial infection can be ***avoided***.

Chronic Pathogen Colonization (CPC)

CPC commonly persists in/on the mucosal linings of any or all of the following locations (**aerodigestive tract**):

1. Sinuses
2. Nasopharynx
3. Oropharynx and throat
4. Tonsils and lymphoid tissues
5. Upper **and lower** bronchial tree mucosa/epithelial lining (it is **incorrectly** believed by many that the mucosal linings of the lungs do not colonize a normal microbial flora)
6. The tongue (often a major CPC source and rarely specifically addressed)
7. Esophagus

Chronic Pathogen Colonization (CPC)

Eradicating areas of CPC requires an agent that **destroys biofilms** and then subsequently destroys, or allows something else to destroy, all variety of pathogens.

Currently, there is no effective ***prescription*** medicine or agent that will reliably destroy/disrupt a persistent biofilm and then kill the previously protected pathogens. **However, hydrogen peroxide is very effectively in eliminating biofilms**, as well as in eliminating the pathogens once the biofilms are gone. It is not the only such agent, but it is probably the most natural, inexpensive, and readily accessible agent that can readily destroy biofilm and underlying pathogens. It is arguably the most effective as well.

Nebulizer (very many different models)

Nebulizer, Hand-held

Chronic Fungal Disease and CPC

Pathogenic fungal growth is just one of many abnormalities that is seen in the abnormal microbiome, with its associated leaky gut and indiscriminate absorption of pathogens, toxins, and incompletely digested foods. This serves to sustain increased oxidative stress throughout the body, and it also serves to seed different tissues and organs with CPC, in addition to the seeding provided by gum, tooth, tonsil, and sinus infections.

One Powerful Anecdote

Dear Dr. Levy, THANK YOU, THANK YOU!! GOD BLESS YOU!!!!! for boldly sharing your research on hydrogen peroxide with the nebulizer!! THIS IS CURING MY FAMILY'S VERY SERIOUS BLACK MOLD POISONING ILLNESSES!! THANK YOU!!! MY husband and I have 5 children and **for over 15 years** now our whole family has had serious illness, chronic infections, and neurological issues from black mold exposure in our home years ago and **3 of our children almost died**, one spent a week on a ventilator in ICU and 2 weeks of oxygen. It has been a journey for years with our functional medicine trying to recover and we **avoid all grains, gluten, dairy, sugar**, we had to throw out ALL of our family belongings because the mold contamination was so severe and we chose to buy a brand new house and start completely over.

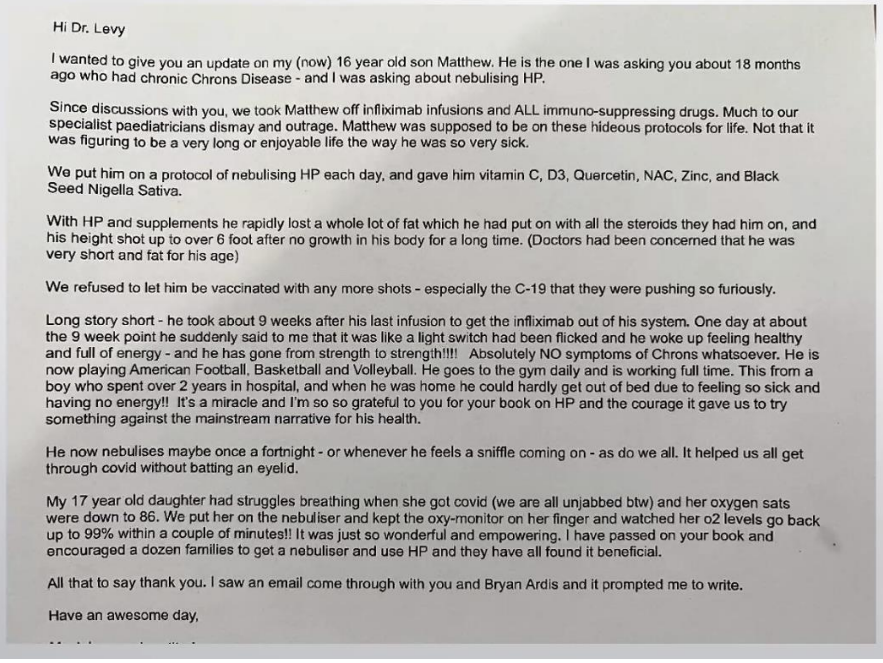
Within ONE hydrogen peroxide nebulization session I was UNBELIEVABLY better!!! EVERYTHING IS SO MUCH BETTER (with my family). Our digestion, bowel movements, inflammation, energy, and even neurological problems are soooo much better!

Crohn's Disease and CPC

Crohn's disease (from the Cleveland Clinic):

Crohn's disease, also called regional enteritis or ileitis, is a ***lifelong*** form of inflammatory bowel disease (IBD) [my emphasis added]. The condition inflames and irritates the digestive tract — specifically the small and large intestines. Crohn's disease can cause diarrhea and stomach cramps. It's common to experience periodic disease flare-ups.

Optimizing Digestion



Hi Dr. Levy

I wanted to give you an update on my (now) 16 year old son Matthew. He is the one I was asking you about 18 months ago who had chronic Chrons Disease - and I was asking about nebulising HP.

Since discussions with you, we took Matthew off infliximab infusions and ALL immuno-suppressing drugs. Much to our specialist paediatricians dismay and outrage. Matthew was supposed to be on these hideous protocols for life. Not that it was figuring to be a very long or enjoyable life the way he was so very sick.

We put him on a protocol of nebulising HP each day, and gave him vitamin C, D3, Quercetin, NAC, Zinc, and Black Seed Nigella Sativa.

With HP and supplements he rapidly lost a whole lot of fat which he had put on with all the steroids they had him on, and his height shot up to over 6 foot after no growth in his body for a long time. (Doctors had been concerned that he was very short and fat for his age)

We refused to let him be vaccinated with any more shots - especially the C-19 that they were pushing so furiously.

Long story short - he took about 9 weeks after his last infusion to get the infliximab out of his system. One day at about the 9 week point he suddenly said to me that it was like a light switch had been flicked and he woke up feeling healthy and full of energy - and he has gone from strength to strength!!!! Absolutely NO symptoms of Chrons whatsoever. He is now playing American Football, Basketball and Volleyball. He goes to the gym daily and is working full time. This from a boy who spent over 2 years in hospital, and when he was home he could hardly get out of bed due to feeling so sick and having no energy!! It's a miracle and I'm so so grateful to you for your book on HP and the courage it gave us to try something against the mainstream narrative for his health.

He now nebulises maybe once a fortnight - or whenever he feels a sniffle coming on - as do we all. It helped us all get through covid without batting an eyelid.

My 17 year old daughter had struggles breathing when she got covid (we are all unjabbed btw) and her oxygen sats were down to 86. We put her on the nebuliser and kept the oxy-monitor on her finger and watched her o2 levels go back up to 99% within a couple of minutes!! It was just so wonderful and empowering. I have passed on your book and encouraged a dozen families to get a nebuliser and use HP and they have all found it beneficial.

All that to say thank you. I saw an email come through with you and Bryan Ardis and it prompted me to write.

Have an awesome day,

Persistent Spike Protein (PSP) Syndrome

PSP syndrome can occur after any significant spike protein exposure. The occurs most commonly in the following settings:

- Chronic (or "long-haul") COVID, which is really just a COVID infection incompletely resolved
- Following COVID shots. The COVID shots effectively deliver a high titer of spike protein to the body, as the mRNA in them is designed to produce spike protein
- New, asymptomatic to minimally symptomatic COVID infections
- Other spike protein exposures, such as shedding from someone with a high titer
- Recurrent spike protein multiplication after seemingly successful treatment

Pandemic Myocarditis and Pre-Pandemic Myocarditis

Myocarditis prior to the pandemic has always been a VERY RARE disease. As a clinical cardiologist practicing for many years, I saw ONE case.

Now, this condition is COMMON. But—***it is not really the same disease*** and ***does not resolve in the same manner***.

Pre-Pandemic Myocarditis

Pre-pandemic Myocarditis

- An inflammation of the heart muscle cells, typically **diffusely**
- Often precipitated by a respiratory virus (like coxsackie) that focuses on the heart for unclear reasons in a very limited number of people.
- No associated cardiac blood vessel inflammation
- No increase in blood clotting
- Heart failure symptoms are common, which unpredictably spontaneously resolve or result in progression to a dilated cardiomyopathy that is fatal or leaves the patient a cardiac cripple for life.
- Arrhythmias only as would be seen with advanced heart failure

Pandemic Myocarditis

Pandemic myocarditis is a relatively easily contracted heart inflammation secondary to persistent spike protein (PSP). PSP myocarditis has multiple significant features that are not shared in the pre-pandemic myocarditis patient.

PSP myocarditis generally is:

- NOT diffuse throughout the heart muscle, but patchy or focal, and seeming to target the conduction system of the heart with some regularity [34441453, 34756746], and unpredictably affecting the atria and/or the ventricles, and sometimes resulting in SINGLE-CELL myocyte necrosis [34664804] The interstitial spaces (extracellular) can sometime be severely and disproportionately affected [36158819, 36436002]
- Can be the FIRST SIGN of a new spike protein exposure (chest pain) [35903566]

PSP Myocarditis

PSP (persistent spike protein) myocarditis involves the heart cells themselves and often the blood vessels supplying the heart cells. The involvement of the spike protein with the blood vessels is a major difference in the diagnosis and management of PSP myocarditis. **The spike protein itself is a toxin**. ***This means oxidative damage must be arrested and repaired in addition to breaking down and eliminating the spike protein itself.***

PSP Myocarditis

PSP myocarditis can range from being completely asymptomatic to being debilitating and leading rapidly to death.

In a PSP-infected heart, spike protein can be found inside the heart cells. As well, the spike protein can also be bound to ACE2 receptors in the blood vessels of the heart. This "double-hit" not only inflames the heart muscle itself, it also works to compromise the blood flow to the heart muscle from increased blood coagulability.

PSP Myocarditis

PSP myocarditis of sufficient degree is detected by the troponin test. Inflamed and/or dying heart cells release this protein. It is very specific for the heart and even a minimal elevation should ***never*** be dismissed as inconsequential, even if the patient feels completely well. And when there are heart symptoms and a normal troponin, PSP **pericarditis** or **Subclinical Myocarditis** is often the likely culprit. And it should be very aggressively treated as well.

PSP Myocarditis

Autopsy studies have already shown PSP in the heart tissue of 60% of patients that died from COVID [33837673].

However, PSP myocarditis can be very FOCAL as well, and **it has been detected in just the conduction system cells in the heart as well** [35324590]. This can manifest as a very minimal troponin elevation, or even **NO ELEVATION AT ALL** but still be a focus that can easily trigger fatal arrhythmias under circumstances of adrenalin surges and lower oxygen tension (flying). Nearly 20% of all COVID patients were found to have arrhythmias, indicating the apparent predilection that spike protein has for the heart, and especially conduction system cells [35074740]

PSP Myocarditis

The troponin test, when even minimally elevated, should NEVER be dismissed as being inconsequential. Furthermore, completely normal troponin levels can also be seen in the presence of focal myocarditis involving relatively few myocytes [34441453]. It remains to be determined just how common this is, but logic currently indicates it is very common.

Unfortunately, “troponin-negative” cases can be just as symptomatic and potentially fatal as those cases of myocarditis that are “troponin-positive.” When conduction system cells in the heart become inflamed, electrical instability and arrhythmias can be seen. When such individuals present with myocarditis symptoms but normal troponin levels, Cardiac Magnetic Resonance (CMR) scanning with late gadolinium enhancement is indicated in order to identify inflamed myocardial tissue, and be as definitive as possible in establishing an accurate diagnosis.

PSP Myocarditis

It is also important to obtain Holter monitoring and cardiac stress testing in such patients, as PSP myocarditis often results in postural orthostatic tachycardia syndrome (POTS). Some PSP myocarditis patients can cardio-accelerate to sinus tachycardias of 150 to 160 beats per minute with little provocation. This is NEVER normal, and virtually never seen even on peak cardiac stress testing. Furthermore, the recovery period back to a normal pulse rate is always substantially delayed as well. POTS always indicates the need for treatment.

PSP Myocarditis

An abnormal troponin test is also a likely indicator of ongoing spike protein damage elsewhere (and sometimes throughout) the body. The other organs do not have their own unique “inflammation-tracking” tests like the heart. But the spike protein can go everywhere in the body, and often does, and it is highly unlikely that anyone with PSP myocarditis is free of spike protein presence and toxicity elsewhere in the body.

COVID and the Spike Protein

Spike proteins are the spear-like appendages attached to and completely surrounding the “porcupine-like” COVID virion. They attach to the target cells and break down the cell membranes with dissolving enzymes that permit entry of the virion into the cell, where replication of the virus can ensue [22816037, 32376634]

The attachment sites on the cell membrane are ACE2 receptors. When these receptors are blocked or otherwise bound up, the virus cannot enter the cell [32376714]

COVID and the Spike Protein

Although they are found on many different cells throughout the body, the ACE2 receptors on the epithelial cells lining the airways are the **first targets of the virus upon exposure by inhalation** [32142651]. Of note, the **concentration of these receptors is especially high on lung alveolar epithelial cells**, causing a disproportionate degree of viral attraction to the lung tissue [32305506]. When enough virus has been bound by these ACE2 sites and virus replication ensues inside those cells, the unchecked process eventually leads to the adult respiratory distress syndrome (ARDS), low blood oxygen levels, and the burst of oxidation known as the cytokine storm, leading shortly to death thereafter [32364961, 33195436, 32592501].

COVID and the Spike Protein

As ACE2 receptors are present in many tissues throughout the body, "free" circulating spike protein can become bound just about anywhere. Increased thrombosis (abnormal blood clotting) has been seen following vaccination and it has been asserted that the spike protein-binding of ACE2 receptors on ***both platelets and the lining of the blood vessels*** (endothelium) are responsible for the increased thrombosis [32887634, 33223324, 34356644]. There is also evidence indicating that "long-haul COVID" is either a persistent low-grade viral infection **and/or** a persistent presence of the spike protein. As the vaccine is asserted to be a spike protein-producing injection, it would appear that anti-spike protein measures might effectively treat both vaccine-related symptoms as well as long-haul COVID symptoms.

COVID and the Spike Protein

The purported purpose of the COVID injection is to introduce mRNA that codes for and makes spike protein, to which the immune system can react and make antibodies to the spike protein, and/or the entire COVID pathogen. Somehow, then, the body is expected to clear out any residual spike protein with the hope that the patient is then left with a "vaccinated status."

However, many people have not been capable of clearing out the spike protein after its introduction into the body.

It not only can effectively replicate itself, it requires very specific measures to completely clear it out of the body. Multiple reports of post-mortem chronic COVID patients and/or vaccinated patients demonstrate spike protein presence **throughout the body** under the microscope. [35900859, 35500794, 34843710, 34613786, 34601398]

Red Blood Cell Facts

The smallest capillaries through which a red blood cell (RBC) must pass to continuing circulating are actually slightly ***smaller*** in diameter than the diameter of the normal RBC. As such, it has been conclusively shown that in the microcirculation the RBCs have to **bend or fold slightly** in order to make the transition from the arterial to the venous side of the circulation. This means that the microcirculation can be relatively easily impaired, with decreased oxygenation resulting.

COVID and Thrombosis

An elevated D-dimer test indicates an increased presence of the breakdown products of blood clots. D-dimer levels have been found to be consistently elevated in both COVID infections as well as in some vaccinated individuals with thrombotic complications. Not surprisingly, patients with higher D-dimer levels for longer periods of time are the sickest and show the greatest mortality [34259661, 32997543, 32853982, 32903841].

COVID and Thrombosis

It also appears that the spike protein itself is **intrinsically toxic**, and the measures that neutralize the impact of any toxin (***like properly-dosed vitamin C***) can be effectively utilized against spike protein. D-dimer levels **must** drop to levels below 0.5 microgram/cc (500 ng/cc) before treatments for abnormal blood clotting are discontinued, regardless of absence of any symptoms, unless a underlying medical condition unrelated to spike protein is felt to be provoking the increase in D-dimer levels. D-dimer levels can be elevated in advanced age, pregnancy, trauma, post-operative periods, inflammatory states, and cancer. Except for age, however, such conditions are not necessarily permanent, meaning long-term D-dimer should still return to normal upon their resolution [35176874]

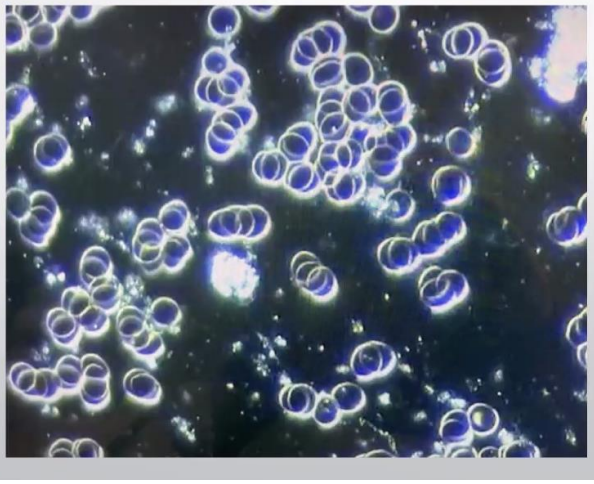
Red Blood Cell Rouleaux Formation

Under conditions of inflammation and increased oxidative stress, RBCs can aggregate face-to-face to form coin-like stacks, with even branching of the stacks when very pronounced. This is known as rouleaux formation [6426540]. Not surprisingly, when rouleaux formation is pronounced, blood viscosity (thickness) results, and there is increased resistance to the normal, easy flow of the blood, especially in the microcirculation [2731173]. This rouleaux formation also impairs the ability of the blood to optimally transport oxygen to the tissues (another feature of COVID spike protein impact) [10711739]. Rouleaux formation is easily visually directly with dark field microscopy. It is likely, although yet to be conclusively proved, that rouleaux formation can positively correlate to the propensity of the blood to clot, and to elevated D-dimer.

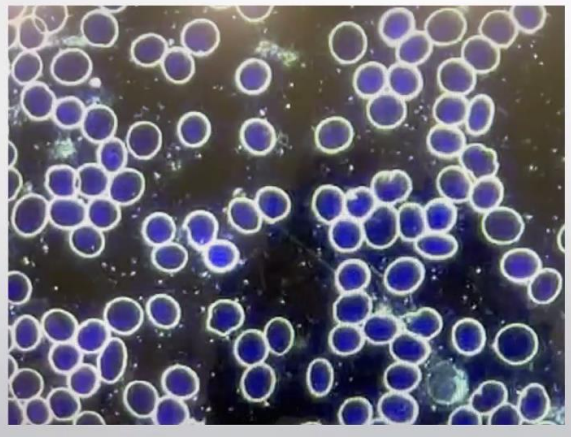
Evidence of Post-Vaccination Rouleaux and Resolution

The following two slides are dark field blood examinations. The first one was taken from a 62-year-old female who had received the COVID vaccine roughly 60 days prior to the examination of the blood. Note that there is mild RBC clustering formation, consistent with minimal rouleaux formation. The slide after that shows a dark field blood exam on the same patient after six autohemotherapy ozonations ("passes"). There is complete resolution of the rouleaux formation of the blood.

62-year-old female, 60 days post-COVID vaccination, Dark Field Blood Examination



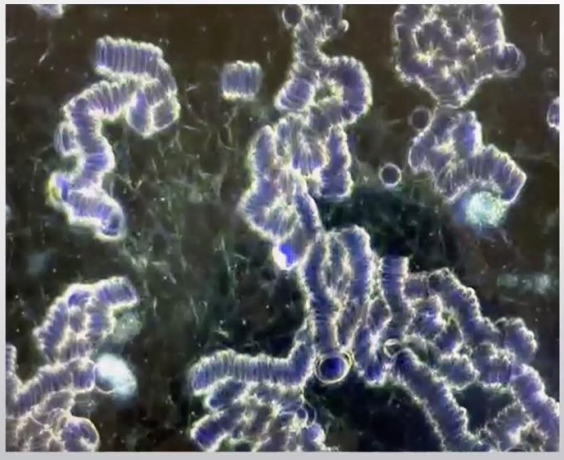
Same 62-year-old female, Dark Field Blood Examination Directly After 6 Pass Blood Ozone Treatment



Evidence of Post-Vaccination Rouleaux and Resolution

A second patient, a young adult male who received his vaccination 15 days earlier and feeling fine, ***without any noteworthy symptoms developing post-vaccination***. The first dark field blood examination displays **severe** rouleaux formations of the RBC, appearing to literally involve all of the RBC fields visualized in an extensive review of many fields in the blood sample. After only an ozonated saline infusion followed by a 15,000 mg infusion of vitamin C, the rouleaux completely resolved. The subsequent slide showed that this return to normalcy was still present another 15 days after the two infusions, giving good reassurance that the treatments had some durability, if not permanency.

Dark Field Blood Examination
15 days post-COVID vaccination



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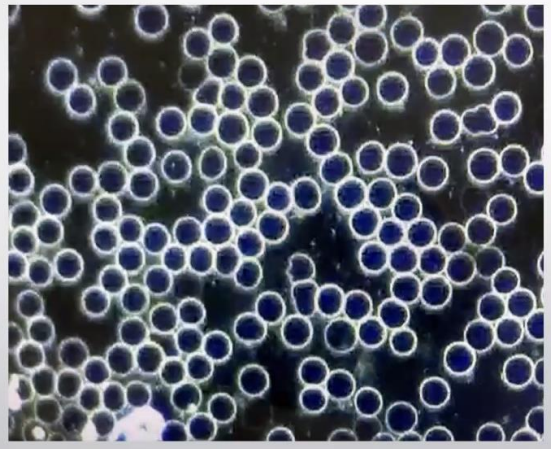
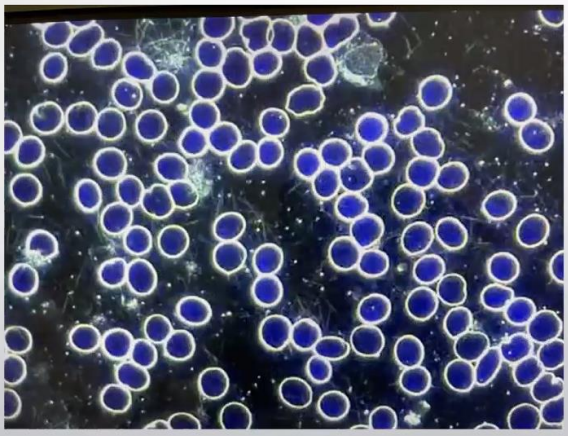
Dark Field Exam Directly after Ozonated Saline and IV Vitamin C Infusions



Dark Field Exam 15 Days after Ozonated Saline and IV Vitamin C Infusions



Thrombolytic Therapy

Many COVID and post-COVID protocols advocate some form of ***anticoagulation*** interventions, but no recommendations for ***thrombolysis***, except when blood clots are large, widespread, and life-threatening. Much evidence exists to indicate that long-term supplemental thrombolytics decrease the symptoms in many different conditions, **including** COVID [34248612, 34124160, 28264497, 29531018, 24416067, 29983558, 15584386, 28648640]. But even if not used for general health reasons, a course of such supplementation should be given for chronic COVID and post-vaccine symptoms along with anti-spike protein therapies to restore the circulation to as completely a normal state as possible.

Thrombolytic Therapy

Possible starting doses for thrombolytic (spike protein and/or blood clot dissolution) supplementation:

- Nattokinase, 200 mg three times daily (from fermented soy); 1,000 mg daily very beneficial for atherosclerosis and abnormal lipid profiles [36072877]
- Lumbrokinase 20 mg twice daily (from earthworm digestive tract)
- Serrapeptase, 10 mg twice daily (from enterobacteria in silkworm intestine)
- Bromelain and NAC, 500 to 1,500 mg daily of each [34959865, 33800932, 28065968]

These can be taken together, or just one or two can be taken. Doses can go **much higher**. Barring allergic reactions, side effects are nearly nonexistent. Remember that when these supplements are taken, they break down existing clots, which means that the D-dimer levels will initially rise rather than fall if abnormal clots are present.

Methylene Blue Therapy

A powerful, full-access antioxidant, and a powerful dye

Like vitamin C, a powerful nonspecific anti-pathogen

Is ***selectively taken up*** by sick cells with higher oxidative stress levels

Helps to **normalize sluggish mitochondrial energy production**, which is at the root of normalizing all cellular functions, as more ATP is produced and oxidative stress drops in the cells. Powers the fourth step of the ETC to make ATP but without generating the oxidative stress resulting from the first three steps.

Can be used in combination with all the other modalities already mentioned. It is another powerful way to help normalize the microbiome and overall gut function.

Generally, 0.5 to 2 ml of 1% pharmaceutical grade methylene blue in a little water one to three times daily, adjusting up or down relative to symptom resolution. Add a level tsp of ascorbic acid powder to each dose and let sit for 15 minutes. The solution will clear and can then be ingested without causing oral/tongue staining. For IV, mix MB in D5W carrier solution only

Methylene Blue Therapy

MB directly attacks COVID in the blood, its binding to the ACE2 receptors, and even after it has entered the cell.

In addition to taking the MB orally, chronically infected tonsils (even when appearing normal) can keep "feeding" CPC and sometimes promoting its recurrence after successful elimination with nebulizations.

The direct application of one or two drops of undiluted 1% MB to each tonsil can help keep the tonsils free of low-grade chronic infection and CPC, and work synergistically with the nebulizations to return the gut to normal and keep it there. Ozone injection in the tonsils can also resolve this infected status in the tonsils.

Suggested Protocol for Spike Protein Toxicity

Whether from long-haul COVID or resulting from a COVID vaccination, it appears that a multi-pronged attack against the toxicity of the spike protein presence can resolve these clinical situations.

These measures are designed to:

1. Interfere with any new binding of spike protein to ACE2 receptors
2. Neutralize ongoing spike protein toxicity while repairing old spike protein-induced toxicity (any oxidation of biomolecules)
3. Support the ability of the immune system to process, break down, and eliminate any unbound circulating spike protein
4. Help to destroy cells already virus/spike protein—infected to eliminate any reservoirs of infection and toxicity
5. Prevent new blood clot formation and ***dissolve pre-existing*** blood clots.

Suggested Protocol for Persistent Spike Protein

All of these measures support each other. However, when all are not available, aggressively treating with the others can still resolve the clinical picture. How long treatment is extended must be determined by the doctor in charge. Vigorous treatment should not be stopped if taste has not been completely restored, D-dimer is greater than 500 ng/cc, troponin is even minimally elevated and/or there is the persistence of any significant COVID-related symptom.

1. Vitamin C, intravenously if available, 50 to 100 grams per infusion. Or sodium ascorbate powder to bowel tolerance daily. Accompany each IV or oral vitamin C dose with 20 to 40 mg of hydrocortisone if possible.
2. **Hydrogen peroxide nebulization to resolve any persistent aerodigestive tract pathogens and to help normalize the gut microbiome. Also to destroy persistent presence of spike protein in the lungs. This is useful for the treatment of ANY MEDICAL CONDITION OR INFECTION.**

Suggested Protocol for Persistent Spike Protein

3. Ivermectin/hydroxychloroquine/chloroquine as powerful antiviral agents able to bind the ACE2 sites before the spike protein does
4. Ozone or ultraviolet blood irradiation if available, especially EBOO. Powerful therapies, but still important to take vitamin C to prevent tissue scurvy secondary to infection. Hyperbaric oxygen if available.
5. Supplementation: quercetin, vitamin D, magnesium chloride, vitamin K2, zinc (**many** others are of benefit)
6. Supplemental thrombolytic enzymes
7. MB therapy oral and/or IV
8. EDTA? (Dark field: removes graphene, reverses rouleaux formation along with vitamin C)

Suggested Protocol for Persistent Spike Protein

Many different protocols can work to resolve PSP syndrome, whether affecting just the heart or other organs as well. For those who do not respond optimally, strong consideration should be given to repeated EBOO (ozone dialysis) treatments follow by hyperbaric oxygen therapy. Expense and low availability keep these therapies from being “front-line” therapies, but for the determined patient, a suboptimal clinical response should not be accepted before including a full course of these important bio-oxidative therapies.

For Contact and Further Information

For complimentary downloads of my latest books and multiple articles pertaining to this presentation, or for a copy of this PowerPoint presentation, send an email to televymd@yahoo.com and make a request for them.

www.peakenergy.com