

Practice: Implications for Super Immunity and Longevity

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Age Management Medicine is shining in the current Pandemic of Covid 19

- AMI statistics during this crisis:
- 1200 patients-no known hospitalizations or deaths
- In Nevada physicians cannot see any ill patients by state mandate
- All ill patients directed through the Health Department for triage and testing is limited, and the sickest are sent to the hospital
- Physicians in Nevada unable to prescribe hydroxychloroquin
- Currently in Phase 2 of reopening AMI
- Suspected Covid 19 AMI patients have been given Anti-viral supplements, and azithromycin (Z-Pack) and done well.

The goals of Age Management are perfect for Covid 19 and Super immunity and Longevity

- Current accepted known risk factors for death from Covid-19
 - Type 2 Diabetes Mellitus
 - Obesity
 - Hypertension
 - Males higher risk of death from the virus
 - hormones may be protective
 - death caused by massive hyperinflammation, immune incompetence, and cytokine storm

Current medical literature has additional newer data suggesting associations and strategies to consider

- Estradiol important in successful outcomes.
- Immune competence extremely important
- HGH, DHEA, Metformin appear important in maintaining T cell lymphocytes = thymotrophic. Greg Fahy UCLA preliminary study with more to follow
- Dysbiosis-fix the leaky gut, gluten free, probiotics
- Low Testosterone levels predict clinical adverse outcomes in SARS-CoV-2 in men with pneumonia Rastrelli et al Andrology 2020 June 3
- Reduce comorbidities/improve cardiometabolic disease.

Additional important strategies that are gaining support in the medical literature

- Diet-extremely important. Paleo/keto diet with clean healthy fats incorporate good fats in our cell membranes that produce good cytokines that don't kill us. Omega 3 fatty acids, wild fish, nuts, avocado, grass fed butter, grass fed cheese. Bad fats = bad cytokines which are inflammatory.
- Micronutrients are important-vitamin A, C, D, E, B vitamins-methylated B12, methyl folate, Selenium, zinc
- Polyphenols-lots of literature support-naturally occurring mostly, and synthetic. Foods: blueberries, strawberries, coffee, teas, wine, green tea- (ECGC), olive oil, chocolate. Supplements/adjuvants include our familiar ones: Quercetin, resveratrol, pterostilbene.

Gunderson Proposed theory of Covid 19 pathogenesis of deaths in ventilated pneumonia patients

- Covid 19 infection in infected patients is associated with damage to the hemoglobin molecule porphyrin ring causing release of free iron-a strong prooxidant resulting in a storm of inflammatory cytokines which overwhelms the pulmonary system and the introduction of high oxygen pressures with mechanical ventilation may additionally accelerate the inflammatory cascade and act like adding gasoline to a fire resulting in death.
- It is proposed to consider the use of deferoxamine (DFO)-an iron chelator as an adjunct in the current management of Covid 19 patients. Further research is needed

Iron release may be a factor in acceleration of the cytokine storm in Covid 19 deaths

- Iron is tightly controlled in the body.
- A powerful prooxidant
- May explain the process of mechanical ventilation causing extremely high death rates
- Covid-19 : Hemoglobin, Iron, and hypoxia beyond inflammation-A narrative review. Cavezzi et al Clinical Practice 2020 May 19th
- Iron Chelators proposed for Covid 19 treatment. Metabolism July 2020-accepted for publication May 8th, 2020.

What can we do today to lessen the impact of covid 19?

- Follow the tenets of Age Management medicine- eliminate co-morbidities- Type 2 DM, obesity, hypertension.
- Follow a clean Paleo/Keto diet emphasizing organic foods ,fruits, vegetables, healthy fats, and protein. Emphasize foods high in antioxidants, and flavonoids.
- Supplement with the highest quality vitamins, omega three fatty acids, methylated b vitamins, vitamin D.
- Maintain youthful levels of the major hormones- Human Growth Hormone, Testosterone, estradiol, and DHEA to build super immunity.
- At AMI we have a private label Orthomolecular product we call Viral Defense that we have used and trust-80-90 % effective against all acute viral disease, including influenza, and appeared to significantly improve our suspected covid 19 patients.

Covid 19 treatment continued

- Current testing is unreliable-eventually we will have accurate and more widely available antibody tests.
- Many vaccines are being developed and human trials underway.
- Current national model of reopening businesses and society in low risk states, and treating the hot spots more aggressively is a reasonable approach.
- For now, use masks when appropriate, social distancing when appropriate and follow the tenets of this talk and 99+ % of us should do well.
- Continue current handwashing, and avoidance of touching your face.

Consensus statement on Age Management and super immunity and longevity

- The principles of Age Management, and responsible social distancing should allow all of us the highest chance of living beyond covid 19 and superlongevity will be linked with super immunity.
- America is somewhere in the middle of this crisis and this is a rapidly changing situation.
- We have to be aware that this is a nasty virus but we all can and will survive covid 19.
- Thank you!