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Pugos Nutrition to Boost Immunity in Covid-19 Infection

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ABSTRACT

The whole world is suffering from the corona virus, a global pandemic, which has captured world attention to the immune system. As the world scrambles to find a cure for Covid-19, health experts have suggested boosting the body's immunity. Immune system defense against bacteria, virus and other organisms may help minimize the effects and hasten the recovery from the disease. Covid-19 still has a troublingly high mortality rate. A person with a strong immune system and good body health should be able to recover from severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) infections without any complications because the immune system produced antibodies. Immunity will be "our savior" against the virus. The idea is that if you don't have a potent weapon to combat the enemy, a strong and effective shield is the best bet to protect yourself. There are still millions of people in the world at risk due to old age, weak immune system and pre-existing medical issue.

Keywords: *CoVID-19, SARS-COV-2, Coronavirus, Immunity booster, Pugos nutrition.*

Introduction

The outbreak of the new corona virus (SARS-CoV-2) infection is spreading to every continent; Hailing from a large family of viruses, Corona viruses can cause respiratory illnesses. As per the statistics, geriatric peoples are more susceptible for the COVID-19 infection because of their low immunity against pathogens & various underlying diseases [1]. Covid-19 is newly identified infectious disease. In 2019, December the new Coronavirus was found in Wuhan, China with a number of cases of pneumonia patients. Corona Viruses are big group classified in Nidovirales order; by use of a nested set of mRNAs virus get replicated ("nido-" for "nest") [1]. There are four genera of Coronavirus sub family: alpha, beta, gamma, and delta corona viruses. Two genera of the human corona viruses (HCoVs): alpha corona viruses (HCoV-229E and HCoV-NL63) and beta corona viruses (HCoV-HKU1, HCoV-OC43, Middle East respiratory syndrome coronavirus [MERS-CoV], and the severe acute respiratory syndrome coronavirus [SARS-CoV] [1].

COVID-19 and Immunity

Transmission of COVID-19 (SARS-COV-2)

This virus is transferred from one individual to another by airborne droplets to the nasal mucosa. In cells of the ciliated epithelium virus get replicate and then inflammation, cell damage is caused [3].

Spread of COVID-19

In 2019, the Centers for Disease Control and Prevention (CDC) started monitoring outbreak of the new coronavirus (SARS-CoV-2) infection is spreading to every continent [4].

Structure of COVID-19

Coronaviruses are medium-sized, spherical or pleomorphic enveloped, non-segmented (single stranded) positive sense RNA Viruses associated with a nucleoprotein within a capsid comprised of matrix protein in

Nidovirales Order. The envelope bears spikes like projection on surface which is made up of glycoprotein which gives the virus a characteristic crown-like appearance [3].

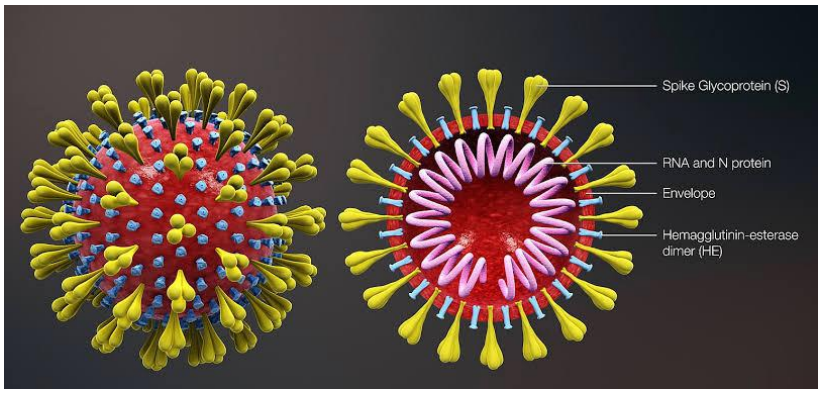


Fig.1. Structure of SARS-COV-2

Role of immunity in COVID-19

A report in Lancet shows that acute respiratory distress syndrome (ARDS), a common immunopathological event for SARS-CoV-2, SARS-CoV and MERS-CoV infections is the main death cause of COVID-19, and one of the main mechanisms for ARDS is the cytokine storm. The occurrence and development of SARS-CoV-2 depend on the interaction between the virus and the individual's immune system. Viral factors include virus type, mutation, viral load, viral titre, and viability of the virus in vitro.

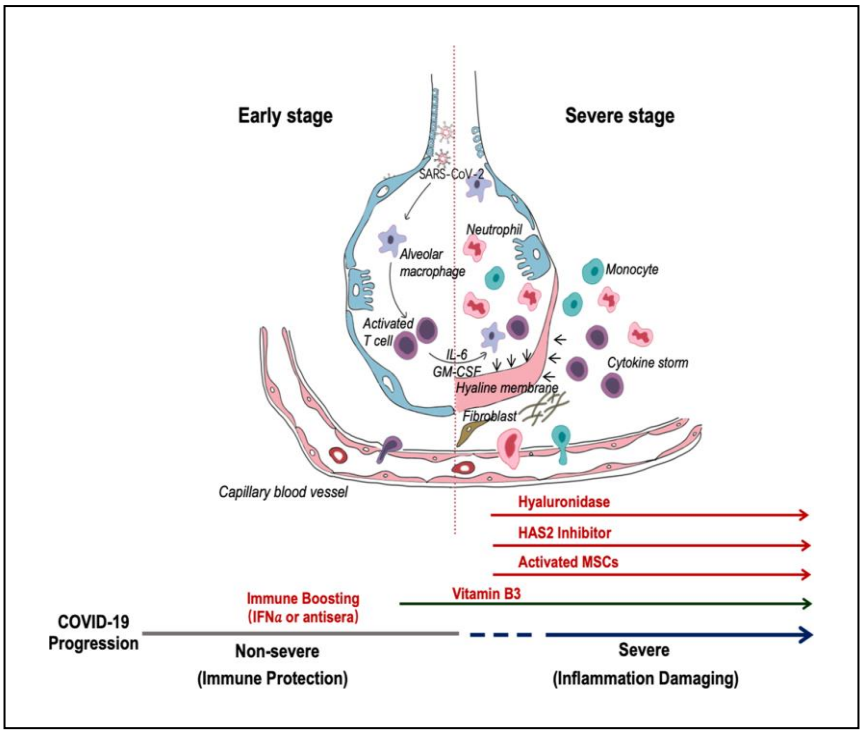


Fig.2. COVID-19 infection: the perspectives on

immune responses in Cell

The individual's immune system factors include genetics (such as HLA genes), age, gender, nutritional status, neuro endocrine-immune regulation, and physical status. These factors all contribute to whether an individual

is infected with the virus, the duration and severity of the disease, and the reinfection. In the early stages of the epidemic, accurate diagnosis helps control the spread of the disease [5].

Treatment

As yet, effective treatment is unavailable**,** social distancing &boosting the body's immune system may prevent the disease from spreading.

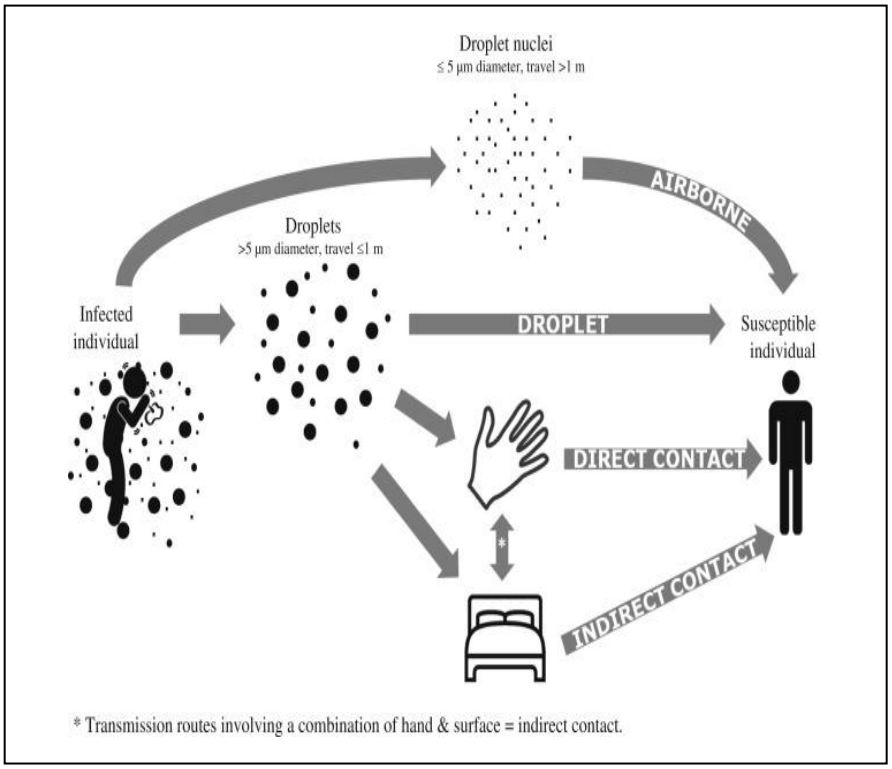
Immune System

Our immune system consists of a complex collection of cells, processes, and chemicals that constantly defends our body against invading pathogens, including viruses, toxins, and bacteria [6][7].

After an incubation period, the invading COVID-19 virus causes non-severe symptoms and elicits protective immune responses. The successful elimination of the infection relies on the health status and the HLA haplotype of the infected individual. In this period, strategies to boost immune response can be applied. If the general health status and the HLA haplotype of the infected individual do not eliminate the virus, the patient then enters the severe stage, when strong damaging inflammatory response occurs, especially in the lungs [8].

It seems that when the body is unable to produce an adequate adaptive response against the virus, the persistent innate-induced inflammation can then lead to a cytokine storm, ARDS, and diffuse organ involvement. With aging, the population of naïve T-cells shrinks while antigen experienced, memory T-cells comprises an important portion of T-cells population [9].

Who gets infected more?



The National Institutes of Health (NIH) suggest that several groups of people have the highest risk of developing complications due to COVID-19. These groups include Young children, According to WHO

People aged 65 years or older get infected more because of weak immunity & According to CDC due to physiologic and immunologic changes Pregnant Women are more susceptible to viral respiratory infections, including Covid19. [10] The people more infected by Covid19 are who suffers with diseases like Chronic Respiratory disease, diabetes, Cancer, Cardiac problem [11].

Population is generally susceptible to SARS-CoV-2, the median age was 47.0 years (IQR, 35.0 to 58.0), 87% case patients were 30 to 79 years of age, and 3% were age 80 years or older, and the number of female patients was 41.9%. Most cases were diagnosed in Hubei Province, China (75%). 81% cases were classified as mild, 14% cases were severe, and 5% were critical. The overall case-fatality rate (CFR) was 2.3%, but cases in those aged 70 to 79 years had an 8.0% CFR and cases in those aged 80 years and older had a 14.8% [12].

Anti-tumor necrosis factor (TNF) antibodies have been identified in disease tissues of patients with COVID-19. Also there is sufficient evidence to support clinical trials of anti-TNF therapy in patients with COVID-19 [13]. Except in children and adolescents this virus infects the age group evenly and it is reported in a survey of 1000 patients in Wuhan, china. Near 15% cases progress to severe phase and 65% have big chance to progress to severe phase [14].

Immunity work

Immunity solitary break the chain of transmission by starved pathogen of host infect, breaking chain of transmission help to protect health of humans [15].

The division of two-phase is playing an important role: the first immune defense-based protective phase and the second inflammation-driven damaging phase. Doctors should try to increase immune responses throughout the first phase and put down it in the second phase [14].

To conclude, in populations at risk (elderly, associated co morbidities, immunosuppressed), when activation of the innate immune system fails to produce an adequate adaptive response (i.e., virus-specific CD8+ T-cells), it seems that persistent self-induced inflammation can then cause mortality. Thus, mounting an early adaptive immune response may save lives [9].

Recommended Pugos Nutrition Supplements

ASTASHINE capsule (World's most powerful antioxidant), Astashine silver capsule, Immunize capsule, Colostramin capsule, Curcumet capsule.

Conclusion

Whole world is in a great trouble nowadays due to the pandemic of COVID-19, which is a highly contagious viral infection causing severe respiratory discomfort & even death in some cases. Significantly high blood plasma levels of inflammatory cytokines such as IL-1 beta, IL-6, IL-12, TNF-alpha etc were found in patients with COVID-19 infection.

The severity of this coronavirus infection was found to be too high in peoples of old age and/or of immune-compromised once. In this review, we suggest that the boosting of immune system with Pugos

Natural immunomodulatory agents such as Astashine capsule (World's most powerful antioxidant), Astashine silver capsule, Immunize capsule, Colostramin capsule, curcumet capsule that helps to prevent Covid-19 infection.

Declarations

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Competing Interests Statement

The authors declare no competing financial, professional and personal interests.

Consent to participate

Not Applicable

Consent for publication

We declare that we consented for the publication of this research work.

Availability of data and material

Authors are willing to share data and material according to the relevant needs.

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