



Research Gate FORUM

Q: Is there any natural non-aggressive way to prevent the cytokine storm in the severe COVID-19 cases?

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Dr. Koltai is correct: virus in itself does not kill. It just triggers a chain of events that might end up wit... [Read more](#)

My Answer: "Cytokine Storm" is just a fancy term to denote a protracted Inflammation overload/over-drive. When your Dendritic & B sentinel cells detect localised foci of infection, a flurry of cytokines are unleashed in response, including:

Pro-Inflammatory (eg. IL-1, -2, -4, TNF- α , ILs-6 & -12) & Chemokines (eg. IL-8) all trying to summon leucocytes in general, but Immune cells in particular to meet the contingency. "First on the scene", your immediate responders, are your "front-line" members of the Innate Immune System (IIS), your "shock troops", including your NK cells, monocytes (precursor to your macrophages & other phagocytes), dendritic cells, defensins, etc, etc. They ALL "join the fray", doing battle trying to defeat the nos. of invaders. There are LOTS of variables at play here, including: nos. (as in blood count) of "invaders" (yes, THIS is probably the **most** decisive of the variables), & "potency" (ie. activity) of these front-line "shock troops".

IF the nos. of adversaries is problematic (ie. too overwhelming) and the Innate system is overwhelmed & "under-performing" (ie. from insufficient nos. to NOT being "efficient"), the Dendritic Cells (DCs) have to now "call on" the Adaptive Immune System (AIS) into action to help in the overall "battle" [DCs are the "bridge" between the IIS & the AIS). SO, the DCs themselves put out other cytokines to marshal the members (eg. B- & T- cells, immunoglobulins, etc.) of the AIS to do battle. For a novel Corona-Virus like this, there WON'T be any IgGs specific to COVID-19 virus unless you were infected like 2-3 months ago; IF you were infected like just recently, you would show a very strong IgM. Otherwise, IF you're COVID-19 -ve, you would show both Immunoglobulins -ve.

IF your combined Immune systems is losing & unable to contain & “draw down” the infection, your “Cytokine Storm” STILL continues, still trying to marshal the forces, ie. both the IIS & AIS; this unfortunately CONTINUES to damage the tissues of the upper respiratory tract, the lower respiratory tract [ie. the trachea **and** the lungs], and very possibly where the ACE2 Serine protease [which acts as the precise receptor for the SAR2-COVID-19 Spike (S) protein (Code 6CRV)] resides plentifully: the heart (myocardial damage, possibly the electrical nodes – causing/exacerbating any existing any ventricular/atrial ectopy), renal (causing Acute Renal Failure or exacerbating any Chronic Renal Failure) and small & large intestines (symptom: frequent, unresolved diarrhoea). SO, the unabated “Storm” continues to lead the hapless victim onto the road to....*Perdition*.

SO, how do you control the “**Storm**” ?? Obviously, the body’s ongoing attempts now to fight the virus nos. are producing more shocking, deadly, lethal side-effects that are irrevocably damaging the critical major organs (except the brain). IF the “Storm” is ongoing like this, you KNOW the patient (Px) is NOT winning the fight against the Virus, AND the foregone conclusion would be that, unless you “reel back” the “Storm” & keep it on a “leash”, Death will be inevitable... The 1st. “lethal event” will be a highly predictable one: **heart-failure** (cardio myo-ischaemia, preceded by extensive, massive myo-cardial infarction), ie. **cardiac-arrest**, NOT lung-collapse..

OK, HOW to control the “Storm”? THIS **has** to be the ‘Total Approach’: start from the **very** top: the “grand-daddy” of them all: **Nuclear Factor Kappa Beta** (NF- κ B); the “Nuclear” here refers to it being transcribed within the “Nucleus”: it is transcribed within the nucleus of each affected host cell. This is regulated by a long non-coding RNA (lncRNA); **its signalling Pathway is required for efficient flu-Virus replication....**

The effects of this cascades down several pathways, notably the Eicosaenoid Pathways mediators, eg. the COX2 (yielding PGE₂, **the very most potent** Inflammatory enzyme in the body), the 5- & 12-LOX Catalytic Pathway [generating Leukotriene LTB₄ (highly-Inflammatory – the most Inflammatory of ALL Leucotrienes) & a whole series of other also very Inflammatory Leucotrienes [eg. LT-5 Series, LTs A₅, B₅, C₅, D₅, etc.).

NOTE: ALL these LTs (Leucotrienes) HOLD the “key” to the existence of Inflammation in all the airways of the body (including in the Lungs): IF you want to control Inflammation in your airways (even not necessarily flu infections but emphysema, asthma, etc.), you WOULD control these LTs.....

Oh, let’s NOT forget the quintessential “Good Guy”: the MOST powerful anti-Inflammatory pathway, COX1, producing the most powerful anti-Inflammatory enzyme in the human body: PGE₁ (Prostaglandin E₁). What did I say about “*The Total Approach*”? While road-blocking **all** the Inflammatory pathways from the top (ie. NF-

KB), you would, at the same time, be ramping right up the chief anti-Inflammatory mediator, the **Cyclo-Oxygenase1**....

SO, **can you do ALL that naturally, you asked?** You bet you **CAN**. There are proven ways, clinically AND published in peer-reviewed journals. I DON'T have the time OR space to "trot" them out here. I am the 'Chief Scientific Officer' of our high-level Healthcare Service Provider group (Nutrition Beyond) in Australia, also an advanced R & D group. More than a week ago, we started an ambitious 12-part Newsletter Series on COVID-19. These are rather lengthy, very detailed technical discussions on the subject, and so far, the first 4 of this Series are out. IF there is a way here, at **ResearchGate**, to provide links to d/load these PDFs, I would be willing to post them here for your further enlightenment.

Sincerely,

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