

LONG COVID, MAST CELL ACTIVATION, AND FINDING A WAY OUT

written by Eugene L. Heyden, RN. | March 7, 2024

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"The mast cell is a complex immune cell that in its mature form resides in the tissues that interact with the external environment such as the air passageway, skin, and

gastrointestinal tract. While best known for its central role in allergy, anaphylaxis, and asthma, mast cells primarily function in host defense to bacteria, parasites, and viruses.” ~ Hamilton, 2018

“Individuals with long COVID-19 are confounded with multiple organ system dysfunctions, long-term organ injury sequelae, and a decreased quality of life.

*“There is an activated condition of mast cells in long COVID-19, with abnormal granulation and excessive inflammatory cytokine release. A study by Weinstock et al. indicates that **patients with long COVID-19 suffer the same clinical syndrome as patients with mast cell activation syndrome (MCAS).**” ~ Sumantri and Rengganis, 2023, emphasis added*

***“Long-COVID symptoms disappeared completely in 29% of treated patients.** There was a significant improvement in each of the considered symptoms (improved or disappeared) in all treated patients, and the improvement grade was significantly greater in treated patients compared to controls.” ~ Salvucci et al., 2023, emphasis added*

Let’s get right down to business.

Fortunately, there is something about Long COVID that has not gone unnoticed. Clearly identified, is the striking similarity between the symptoms of Long COVID and the symptoms of another disease known as **Mast Cell Activation Syndrome (MCAS)**. Indeed, they look almost identical, and may even be the same disease—with COVID leading to long COVID leading to a state wherein the activation of the mast cell becomes persistent and quite problematic. Listen up!

*“An observational study conducted by Weinstock et al. shows that patients with **long COVID-19 have virtually identical mast cell activation symptoms** and severity as previously diagnosed MCAS patients without long COVID-19. Notable similar symptoms in long COVID-19 compared with MCAS patients are physical weakness, brain fog, tachycardia, insomnia, shortness of breath, migraines, paresthesia, arthralgia, dizziness, eye complaints, nasal complaints, tinnitus, dry mouth, constipation, easy bruising, flushing, vertigo, wheezing, bone pain, weight loss, rashes, abdominal pain, and skin lesions.” (Sumantri and Rengganis, 2023,*

emphasis added) Sounds like a few people I know. Continuing . . .

*“Our data confirm that **histamine receptors blockade may be an effective target to successfully treat long-COVID**. Our finding supports the underlying role of MCA [Mast Cell Activation] in the pathophysiology of long-COVID. ... **“Patients treated with antihistamines showed a significantly better response than the 23 untreated patients.”** (Salvucci et al., 2023, emphasis added)*

Now if you are a physician, one who is sufficiently aware of MCAS and know how to effectively treat it—and are sufficiently aware of the similarity between Long COVID and MCAS—you just might be inclined treat the Long COVID patient sitting right in front of you along these lines:

“Patients [with Long COVID and controls, patients without Long COVID] were treated with fexofenadine (180 mg/day) and famotidine (40 mg/day).” Treatment here was not with exotic, expensive drugs, it was with the common, reasonably priced antihistamine **Allegra** (fexofenadine) and the common, very affordable antihistamine **Pepcid** (famotidine).

So, how did it all turn out?

*“Fatigue, brain fog, abdominal disorders, and increased heart rate were evaluated in treated and untreated patients at baseline and 20 days later. Results: **Long-COVID symptoms disappeared completely in 29% of treated patients. There was a significant improvement in each of the considered symptoms (improved or disappeared) in all treated patients, and the improvement grade was significantly greater in treated patients compared to controls. No significant differences in the outcomes were observed in the controls.**”* (Salvucci et al., 2023, emphasis added)

Well, that’s enough for me! If I had Long COVID, I would ask my physician for a therapeutic trial of Allegra and Pepcid, according to the above treatment example, and see what happens. What would I have to lose? Of course, I would not take “No” for an answer. I am very persuasive.

Assuming I was successful in my request, should my response to the therapeutic trial outlined above was not as satisfying as anticipated, I might consider requesting the addition of another common medication to the treatment plan. In the treatment of MCAD, to calm down the inappropriate activation of the mast cell, the drug montelukast (Singular) could be added to the regime. (see Sumantri and Rengganis, 2023) This measure just might be effective in the treatment of my Long COVID. What would I have to lose?

And, of course, there are things I could do on my own that may give me an edge. I could add quercetin, vitamin C, and curcumin to the treatment plan—all compounds known to bring calm to the mast cell. (see Hamilton, 2018) Medical supervision required. Additionally, a gluten-free diet may be of help, as gluten has been shown to stimulate the mast cell (Hamilton, 2024).

In conclusion, let me share the following conclusion:

*“Our data confirm that **blocking both H1 and H2 receptors can lead to a quick improvement in patients with long-COVID** with specific symptoms attributed to MCA. These findings support the underlying role of MCA in the pathophysiology of long-COVID.”* (Salvucci et al., 2023, emphasis added).

I’ve done my part—sharing with you insights and the possibilities. Now, it’s up to you take it from here.

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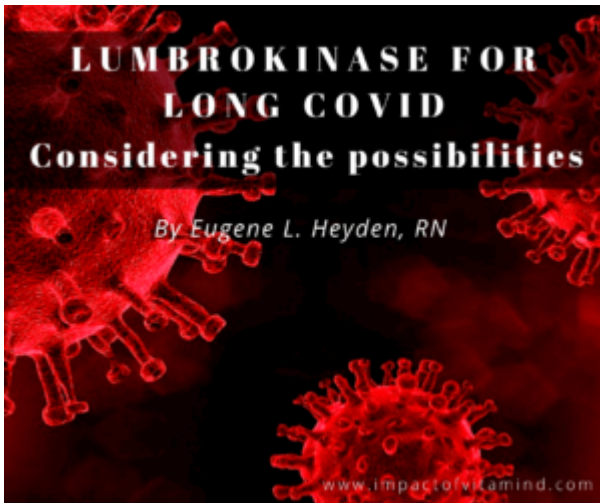


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