

# Review of: "[Case Report] Profound Symptom Alleviation in Long-Covid Patients After PAMP-Immunotherapy: Three Case Reports"

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Potential competing interests: No potential competing interests to declare.

The authors are to be commended for writing about their experiences. Clinician observations and experiences play a vital role in identifying new possibilities for the treatment of conditions.

Readers would be better able to assess the impact of the intervention if more details were given. If the authors are not already familiar with them, the "Resident's Clinic" columns of the Mayo Clinic Proceedings are one example of the type and amount of detail that is helpful when publishing case reports.

For example:

- The article is about long COVID, but it is not clear how SARS-CoV-2 infection was established. When were the patients infected? How was the infection confirmed (antigen testing, PCR, etc.)? How was long COVID defined (WHO definition, other definition)? What was the evaluation for each patient to eliminate other causes of their symptoms?
- Patients are often given the label of chronic fatigue syndrome and fibromyalgia merely because they have chronic fatigue or widespread muscle pain. Yet criteria exist to diagnose both: which definitions did the patients in this study fit?
- In the Discussion, some but not enough details are given about the treatment. It is not clear to me what PAMP-containing drugs were used. It sounds like the drug dose, frequency, and parameters for another dose were individualized for each patient, but details of that are missing for each patient. For readers to try to replicate or for researchers to begin to put together a trial, those details are needed.
- For the Table, it is unclear at what time the assessment of symptoms occurred.
- A few sentences about the limits of case reports could be included. For example, there are people who continue to improve from long COVID even after a year of symptoms. So for an uncontrolled study, both natural recovery and the placebo effect can happen.

Finally, the authors might be interested in the work of Dr. Olof Zachrisson. He has published on the use of Staphylococcus toxoid in both fibromyalgia and chronic fatigue syndrome. One example: Treatment with staphylococcus toxoid in fibromyalgia/chronic fatigue syndrome—a randomised controlled trial.

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