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Response to Long COVID, MCAS and Low Histamine Diet

Long COVID or Post COVID Syndrome are terms to describe the long-term effects of COVID-19. The National Institute of Clinical Excellence (NICE) refer to the following definitions:

- Ongoing Symptomatic COVID 19: signs and symptoms of COVID-19 from 4 weeks up to 12 weeks
- Post-COVID-19 Syndrome: signs and symptoms of COVID-19 continue for more than 12 weeks and are not explained by an alternative diagnosis

Symptoms can vary considerably, the most common (but are not limited to) are detailed below:

Respiratory	Cardiovascular	Neurological	Gastrointestinal	Generalised
• Breathlessness • Cough	• Chest tightness • Chest pain • Palpitations	• Cognitive impairment or 'brain fog' • Memory issues • Loss of concentration • Headache • Sleep disturbance • Pins and needles/ numbness • Dizziness • Delirium (older population)	• Abdominal pain • Nausea • Diarrhoea • Anorexia • Reduced appetite	• Fatigue • Fever • Pain

Musculoskeletal	Psychological/psychiatric	Ears, Nose and Throat	Dermatological
• Joint pain • Muscle pain	• Symptoms of depression • Symptoms of anxiety	• Tinnitus • Earache • Sore throat • Loss of taste and smell	• Skin rashes

The Prevalence of Long COVID

It is unclear the prevalence of Long COVID. However, in the REACT-2 study in England, 37.7% of 76,155 participants reported one or more symptoms lasting 12 weeks or more, with 14.8% having three or more symptoms. One third (8771 participants) reported that their Long COVID symptoms had a significant effect on their daily life, highlighting the potential challenges and demands of managing Long COVID on health services.

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Managing Long COVID

Currently, there is limited guidance on how to manage Long COVID, but some interest has been given to the low histamine diet. This is because COVID-19 has similarities to Mast Cell Activation Syndrome (MCAS) and Histamine Intolerance. MCAS is a complex condition whereby mast cell mediators (such as histamine) are released in response to triggers which can lead to a wide range of symptoms affecting multiple systems in the body. One study suggests that hyperinflammation seen in COVID-19 is due to dysfunctional mast cells releasing inflammatory mediators, as seen in MCAS. However, treatment for MCAS is multifactorial and dependent on each individual.

The Low Histamine Diet

The low histamine diet has been suggested as a potential treatment for the management of Long COVID. However, there is limited evidence to support this claim with more research needed, therefore this approach is not currently recommended.

Histamine occurs naturally in many foods and a low histamine diet can potentially be very restrictive, leading to nutritional deficiencies if not supported correctly by a dietitian.

Conclusion

More research is needed to explore the effects of a low histamine diet. The diet is therefore not currently recommended in the management of Long COVID.

References

- Akin, C., 2017. Mast cell activation syndromes. Journal of Allergy and Clinical Immunology, 140(2), pp.349-355.
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- NICE: COVID-19 rapid guideline: managing the long-term effects of COVID-19 (nice.org.uk)
- Mast Cell in Action: About MCAS | Mast Cell Action
- Whitaker, M., Elliott, J., Chadeau-Hyam, M., Riley, S., Darzi, A., Cooke, G., Ward, H. and Elliott, P., 2021. Persistent symptoms following SARS-CoV-2 infection in a random community sample of 508,707 people. medRxiv.

This Factsheet was prepared by Allergy UK's Clinical Team.

Additional resources

For more information and advice about COVID-19 and allergy, visit our dedicated COVID-19 pages on our webiste:

www.allergyuk.org/about-allergy/allergy-and-coronavirus-covid-19

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