Low histamine diets and Long Covid

Guidance document

Long Covid

'Long COVID' or 'long-haulers' are terms being used to describe extended illness following initial infection of COVID-19 due to the SARS-CoV-2 virus. Precise definitions have yet to be agreed but the National Institute for Health and Care Excellence (NICE) recommended the following definitions: 'Ongoing symptomatic COVID-19: from 4 to 12 weeks' and 'Post-COVID-19: signs and symptoms of COVID-19, continue for more than 12 weeks and are not explained by alternative diagnoses'(1). Symptoms are wide ranging and include: Respiratory (breathlessness and cough); Cardiovascular (chest tightness, chest pain, palpitations); Neurological (cognitive impairment or 'brain fog', headache, sleep disturbance, peripheral neuropathy, dizziness, delirium in older populations); Gastrointestinal (abdominal pain, nausea, diarrhoea, reduced appetite); Musculoskeletal (joint and muscle pain); Psychological or psychiatric (depression and anxiety); Ear, Nose and Throat (tinnitus, earache, sore throat, dizziness, loss of taste and/or smell); skin rashes, fatigue, fever and pain (1).

Long COVID-19 symptoms have been reported in 87% of hospitalised patients two months following infection and 53% of non-hospitalised patients over four months after diagnosis in a study of 118 patients (2). It is not clear why some people experience prolonged symptoms and it is not determined by the severity of the initial infection (3).

Histamine intolerance

Histamine intolerance is thought to be due to reduced ability of the body to break down ingested histamine in foods due to reduced diamine oxidase (DAO) levels in the small intestine (4) although evidence for this has yet to be demonstrated (5). The resulting increased availability of circulating histamine causes a wide range of symptoms including bloating, diarrhoea, nausea, headache, rhinitis, wheezing, hypotension, arrhythmia, urticaria, itching, flushing and fatigue (6). There are no reliable tests to diagnose histamine intolerance; it is not a type of food allergy, and therefore food allergy testing is not useful. Many of these symptoms are similar to those seen in people with long COVID and Mast Cell Activation Syndrome (MCAS), another chronic multisystem disorder. It has been proposed that the hyperinflammation seen in COVID-19 is caused by dysfunctional mast cells which release histamine and other inflammatory mediators as is also seen in MCAS (7, 8).

Low-histamine diet

A low histamine diet involves restricting intake of foods considered to be high in histamine, usually for 2-4 weeks to see if symptoms improve, followed by a gradual reintroduction process to test level of tolerance (5). The excluded foods are wide ranging and avoidance for any length of time can be difficult to adhere to, particularly when the individual is already feeling unwell, and could lead to nutritional deficiencies if followed for long periods of time without dietetic support. An additional difficulty, is the lack of consensus on which foods are high in histamine and lists vary in content. Although there have been reports of people with long-COVID achieving symptom improvement on a low histamine diet, to date there have been no studies published in this area. Given the lack of evidence and the associated challenges, elimination of dietary histamine is not currently recommended for long COVID. If an

individual is keen to and feels able to trial dietary restriction, dietetic support would be recommended to ensure that it is followed safely and to minimise the risk of nutritional deficiencies. This should be a short-term trial for 2-4 weeks followed by systematic reintroduction of foods to test tolerance levels and broaden the diet. Detailed written information for dietitians to provide to patients has been published by the FASG and is available on the BDA website. Dietitians will also advise on other dietary approaches to support symptom relief, recovery and well-being alongside or instead of a low histamine diet.

References

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