Could the immune response after vaccination damage the gut flora?







There are a percentage of people who develop long Covid type symptoms after vaccination, with no evidence of links to active infection. How can that be possible?

Research is now indicating that long Covid is primarily a disease of the gut, associated with persistent immune activation and damage to gut microflora leading to the unique pattern of symptoms.

Research thoughts into the links with vaccination and long Covid

People who have pre-existing gut issues (characterised by bloating, diarrhoea and constipation) are likely to have an element of inflammatory changes in their bowel mucosa.

If the immune reaction to COVID-19 vaccination triggers an IgA/IgG response in the gut mucosa, this could lead to further alterations in the gut microbiota. Severe COVID-19 is already correlated with faecal microbiome changes and it could be possible that this is driven by IgA rather than the virus.

Dr Leo Galland already indicated that lower levels of Faecalibacterium prausnitzii bacteria in the gut are associated with a higher risk of long Covid.

Our research into COVID-19 has pointed to combination of serum ACE-2 with viral spike protein as the primary cause of the autoimmune response. This could potentially also occur with vaccination and trigger an IgA/IgG response against ACE-2.

If the gut becomes further depleted of protective bacteria and there is already underlying inflammation, this could become exacerbated post vaccine. Additionally, ACE-2 is required for efficient function of specific amino acid transporters in the intestine (BOAT1 transporters).

These thoughts remain theoretical but there has to be an immune explanation for why some people become chronically unwell with long Covid after the vaccine.

Managing these patients could be complex as it requires the immune reaction in the gut to stabilize before symptoms improve. There may be a way to bypass the affected transporters that are impacted in the gut to help relieve symptoms in the interim.

The work continues.

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