

Peer Review

Review of: "COVID-19 and Alzheimer's Disease, Closely Related?"

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This short communication addresses an important and timely hypothesis regarding a potential mechanistic link between COVID-19 and Alzheimer's disease (AD). The manuscript appropriately highlights shared pathways involving APOE4, OAS1 polymorphisms, neuroinflammation, interferon signaling, and the possible amyloidogenic properties of the SARS-CoV-2 spike protein. The integration of genetic susceptibility and immune-mediated mechanisms is conceptually strong and relevant to current neuro-COVID research.

However, the article is largely hypothesis-driven and relies heavily on associative and mechanistic extrapolations rather than longitudinal clinical or neuropathological evidence. The discussion would benefit from a clearer distinction between established findings, emerging evidence, and speculative mechanisms. Additionally, the conclusion could be more cautious, emphasizing that current data suggest a possible biological overlap rather than a confirmed causal relationship.

Overall, this is a concise and thought-provoking contribution that highlights a plausible neurobiological intersection between COVID-19 and AD, but stronger clinical validation and structured evidence synthesis would enhance its scientific robustness.

Declarations

Potential competing interests: No potential competing interests to declare.