

Brain Fog a Pandemic Outcome: Covid-19

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Pandemic has impacted not only economically but also the medical sector around the world. With prevailing death burden among all age groups has become a matter of concern. During upsurge in the pandemic in relation to corona virus-19 (COVID-19) infection, neurological symptoms have predominantly increased. Term 'Brain Fog' has been explained as post Covid effects characteristically showing confusion, amnesia and stroke like symptoms. Moreover, trivial studies conducted worldwide has documented different neuro-radiological and cerebrospinal fluid analysis (CSF). Magnetic resonance tomography (MRI) of a post-covid patients documented larger amount of neurodegenerative signs with/out small vessel ischaemic changes.

Whereas CSF findings suggest rise in opening pressure with moderately higher protein levels. It is a pressing need for further research on clinical neurology justifying the potential role in alluring the signs and symptoms.

There has been a common percentage of both ischaemic and haemorrhagic strokes in post-covid patients. Furthermore, the propensity of symptom is largely observed in patients with co-morbid history of Diabetes, Hypertension, Alcoholism and Hyperlipidaemia. Hence, the treatment should focus as an umbrella and potent enough to register all equations towards a better outcome. Likewise, development of epileptic attacks both focal and generalised in post-covid patients has increased. One reason of seizures developing in such patients' can be due to disbalance of electrolytes namely serum Sodium (Na⁺), Potassium (K⁺) and Magnesium (Mg²⁺). Correction of electrolytes with simultaneous administration of anti-epileptics (AEDs) have produced a promising result. Besides this, stroke like features are also alarming, patients have reported with unilateral weakness, blurring of vision and headaches. These could correlate with high D-dimer suggesting hypercoagulability states which could further aggravate stroke-like symptoms or stroke itself. There is a pressing need for careful consideration of antiplatelets at lower dosage in such patients. Moreover, essential for patients with various co-morbidities such as hypertension, diabetes, past history of CVA, autoimmune disorders (anti-phospholipid syndrome), pregnancy, cardiac history and renal diseases.

Additionally, there has been an increase in secondary fungal and viral infections such as herpes simplex, candidiasis and influenza in Covid patients. These opportunistic infections have presented as facial palsy, meningitis, mono-neuropathy and genital skin warts. Hospital admissions have further up surged the graph of hospital acquired infections. With the latest, Omicron variant of Covid-19 the preliminary data suggests majority of patients present with cold-flu like symptoms and extremely trivial deterioration in oxygen saturation. This could be concluded as a protective effect of major vaccination trials world-wide and development of herd immunity.

These all in collaboration with covid infections have been developing transient memory loss with confusion. This has been observed in majority of patients with/out vaccination status. Hence, we do need further large scale research on development of such clinical symptoms associated with Covid-19.

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