

Latent infections, coronavirus disease 2019 and psychiatric disorders: The friend of my enemy

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Abstract

Recent reports revealed an increased rate of hospitalization and mortality of coronavirus disease 2019 (COVID-19) among patients with psychiatric disorders. On the other hand, there is a link between latent infections, including *Toxoplasma gondii*, herpes simplex virus type 1 (HSV-1) and cytomegalovirus (CMV) with psychiatric disorders. We individually assessed data regarding 1) the mortality rate of COVID-19 among individuals with psychiatric disorders; 2) the association of latent infections in COVID-19 patients and 3) the association between latent infections and psychiatric disorders. We developed the hypothesis that latent infection could increase the risk of severe COVID-19 among patients with psychiatric disorders. Cumulative evidence proposed that infection with toxoplasmosis, CMV and HSV-1 could increase the risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections among patients with psychiatric disorders probably by induction of hyperinflammatory conditions. These infections are also associated with hyperinflammation and T cell exhaustion, which has also been observed in both schizophrenia and COVID-19. This hypothesis provides new insights into the role of latent infections in increasing the mortality rates of COVID-19 among individuals with psychiatric disorders. Strategies for screening, early diagnosis and treatment of these infections could be recommended for COVID-19 patients with a background of psychiatric disorders.

Keywords: COVID-19, latent infections, psychiatric disorders, SARS-CoV-2