

Letter to the Editor

A Guide for Psychopharmacotherapy during COVID-19 Outbreak

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Dear Editor,

Globally spreading COVID-19, declared as a pandemic by world health organization (WHO) on March 11th, 2020, and its associated neuropsychiatric symptoms have led to a global mental and physical health crisis nowadays.

Previous studies demonstrated the increasing rates of various psychiatric problems such as anxiety disorders, insomnia, psychotropic drugs abuse and depressive symptoms due to the fear of getting infected. (1-3) On the other hand, the COVID-19 infection can cause central nervous system damage (4), possibly by the direct neuroinvasion of the virus itself or as a consequence of the inflammatory responses to virus. Infection can cause a variety of neuropsychiatric symptoms including delirium, acute cerebrovascular accident and encephalitis like symptoms, ataxia, headache, peripheral neuropathies, seizures, dizziness and loss of consciousness. (5) Regarding the relatively high prevalence of these symptoms, psychiatrists should be aware of cautious prescribing of psychotropic drugs such as typical antipsychotics, specific atypical antipsychotics such as quetiapine, clozapine and olanzapine, tricyclic antidepressants, atypical antidepressants such as bupropion and central nervous system stimulators (i.e. methylphenidate, lisdexamphetamine) which can lower the seizure threshold.

Moreover, drugs used for the treatment of COVID-19 infection have shown to cause serious neuropsychiatric adverse effects, for instance Chloroquine and hydroxychloroquine which were widely used during the beginning of pandemic can cause serious neuropsychiatric side effects including: aggression, suicidality, delirium, psychosis, depression, personality changes and compulsive impulses. (6, 7).

Since the beginning of COVID-19 outbreak many drugs used to treat the infection and majority of them can have serious interactions with psychotropic drugs due to induction or inhibition of CYP3A4 or other side effects such as hepatotoxicity. (8)

COVID-19 infection can also damage multiple organs and systems including kidneys, liver, heart, lungs, hematologic and immune system, which can impair the metabolism, absorption, distribution and other pharmacokinetic factors of psychotropic drugs. This highlights the importance of dose adjustment. (9)

Regarding the psychiatric patients, there are multiple concerns about their access to their psychotropic drugs or to the laboratories for maintaining their regular drug level or other drug related side effects monitoring (for example in order to monitor serum level of lithium or absolute neutrophilic count monitoring for clozapine) in which psychiatrists must prescribe them with caution especially in older patients.

In conclusion, COVID-19 infection and its pharmacotherapy can affect psychiatric patients and the safety of psychotropic drugs in different ways and psychiatrist must be aware of these serious drug reactions, COVID-19 pharmacotherapy side effects and organ failures due to infection as well as possible need for dose adjustments. However, more clinical trials need to be done in order to introduce a reliable guideline for safely prescribing the psychotropic drugs during COVID-19 outbreak.

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