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Exacerbation of psychosis accompanied by seizure and catatonia in a patient with COVID-19: A case report

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Since the start of the COVID-19 pandemic, there have been numerous reports of neurological and neuropsychiatric manifestations in patients with COVID-19.[1] The complexities associated with the neuropsychiatric manifestations of COVID-19 have led to estimates of the potential prevalence of related disorders, with the goal of treatment and care planning related to them.[2,3] Here we introduce a patient who, despite the relative control of psychiatric symptoms in the months before hospitalization, was admitted to the psychiatric ward with worsening psychiatric symptoms.

The patient was a 61-year-old man who had had schizophrenia for many years and who had been referred to our psychiatric center due to the sudden exacerbation of psychotic symptoms. He had auditory hallucinations in such a way that he heard people telling him that his neighbors were going to take over his house. He experienced the Capgras delusion and deeply believed that the woman who was with him was not his real wife, but only looked like her; and he also had persecutory delusion, and stated that his enemies were attempting to obtain his property. He was admitted to the psychiatric ward due to the exacerbation of psychotic symptoms in the form of auditory hallucinations, and persecutory and Capgras delusions. At the time of admission, he was treated with 10 mg haloperidol with 3 mg biperiden daily.

According to the history, he had not had any respiratory symptoms or fever recently. He also had no history of any other physical problems. On the first night of hospitalization, he gradually became lethargic and suffered from nausea and sweating and lost contact with others. During diagnostic evaluations, he had a sudden onset of seizure that was controlled with lorazepam administration (total, 6 mg). Brain computed tomography (CT) scan, electroencephalography (EEG), and lumbar puncture were normal. In his lab tests, he had sodium at 120 mg/L and white blood cells at 15 700/mL. Other laboratory tests were normal. The patient was screened for COVID-19 due to a number of atypical symptoms, such as weakness and sweating (while probable cardiac causes were also ruled out). The result of real-time polymerase chain reaction test based on nasal and pharyngeal swab sampling for the 2019 novel coronavirus (2019-nCoV) was positive. Also, chest CT scan had bilateral opacities in the base of both lungs.

During this time, the patient's antidopaminergic medication had been put on hold based on psychiatric consultation. He was then treated with normal saline infusion and the necessary controls for the gradual treatment of hyponatremia; however, after a while, he lost contact with others, putting his hands in a fixed position and resisting their movement to a normal position. He stared at one point, did not respond to environmental stimuli, refused to consume water or food, and finally became completely mute. In the psychiatric evaluation, according to the patient's condition, the diagnosis of catatonia was made, and he was treated with lorazepam 2 mg 3 times a day. Gradually, within 24 h, his catatonic symptoms resolved. After 36 h, his lethargy decreased, and he started consuming water and food. With correction of hyponatremia, the patient's seizures did not recur. After a while, he was discharged from the hospital with a marked reduction in psychotic symptoms and in good general condition. At the time of discharge, he was being treated with the same antipsychotic drugs as before.

According to some reports, COVID-19 may cause hyponatremia in some patients, which can be a cause of their psychosis.[4,5] On the other hand, according to some reports, we may see the Capgras delusion due to central nervous system trauma associated with the effects of hyponatremia.[6] One report on COVID-19 and hyponatremia considers the possible association between COVID-19 and the syndrome of inappropriate antidiuretic hormone secretion in relation to a series of patients, and the possible related mechanisms are discussed.[7] Seizures due to cerebral edema seem likely in such conditions.[5]

In our patient, manifestations such as mutism, stupor, positioning, negativism, and rigidity, which meet the criteria of catatonia, occurred following the initial recovery of the patient. Also, delirium and neuroleptic malignant syndrome were not considered for this patient due to his condition of stable vital signs, laboratory results, and normal EEG results.

Catatonia has been reported in some patients with COVID-19.[8,9] In our patient, symptoms improved shortly after he received lorazepam. The role of COVID-19 in catatonic formation still needs to be investigated, especially in terms of its possible mechanisms.[9,10] In fact, while correcting hyponatremia and controlling the patient's seizures, catatonia was also controlled at the same time as treatment with lorazepam. The gradual improvement of hyponatremia was accompanied by the improvement of psychosis in the patient, and the patient's delusions (Capgras and persecutory) gradually became shakable before antipsychotic treatment was started.

According to our knowledge, the patient referred to here is the first with COVID-19 who has presented with a series of manifestations in the form of electrolyte abnormality, exacerbation of underlying psychosis, seizure, and catatonia. Seizure in this patient occurred for the first time without a previous history. Hyponatremia was the only finding that could justify this clinical condition after all diagnostic evaluations.

Given the importance of the issue, it seems that the effects of COVID-19 on the development of symptoms such as catatonia, exacerbation of underlying psychosis, and seizure should be considered with more focus. The co-occurrence of such manifestations in association with hyponatremia, as one of the possible electrolyte disturbances associated with COVID-19, in the form of seizure, Capgras and persecutory delusions, and catatonia, may be considered in the clinical evaluation of other similar COVID-19-related cases.

One of the limitations of our study was the status of the patient as a psychiatric patient admitted to the psychiatric ward and the need for constant communication with other specialists in other fields for the patient's diagnostic and therapeutic management. In this situation, after requesting the desired counseling and explaining the patient's condition, the cooperation of other related specialists was obtained.

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Disclosure statement

No conflicts of interest to declare.

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Staying home is NOT 'staying safe': A rapid 8-day online survey on spousal violence against women during the COVID-19 lockdown in India

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With a recommendation to 'Stay home, stay safe!,' the nationwide lockdown in India began on the 25 March 2020 in a quest to fight the COVID-19 pandemic. Following global trends,[1] India too received increased complaints of domestic violence from across the country during this period.[2] Here we report results of an online survey that was conducted to assess the prevalence and characteristics of spousal violence experienced by Indian women during the lockdown.

This survey was conducted between 11 and 18 May 2020 (lockdown Phase 3 ended 17 May 2020). The study was approved by the Institutional Ethics Committee of the All India Institute of Medical Sciences, Raipur (Ref-997/IEC-AIIMSRPR/2020) and conformed to provisions of the Declaration of Helsinki; all the responders provided e-informed consent. Table S1 describes study specifics as per the CHERRIES Checklist.[3] Of the 654 total responses received, 560 were used for analysis after screening for duplication, responses from single, separated/divorced women, and incongruent responses. Table 1 shows the demographic characteristics of the responders.

The rate of current spousal violence was found to be 18.1% (101/560). Of the 101 positive responses, the rates of physical, sexual, verbal, and emotional violence (for definitions see Table S2) were 34.7%, 10.9%, 65.3%, and 43.6%, respectively. While 13.6% (n = 76) reported spousal violence to have been experienced before the lockdown, 4.5% (n = 25) reported it to have begun since the lockdown. This indicates a 33.1% increase in the rates since lockdown. Of those who reported spousal violence to be present before lockdown, 77.6% (n = 59) reported an increase in violence since the lockdown was enforced. The following were the five most frequently reported responses for perceived spousal reasons for the newly occurring or increased levels of spousal violence:

1 Financial constraints: 60.0% (includes 'loss of job,' 26.2%).
2 Inability to socialize/too much time spent at home: 23.8% (includes work from home, 21.8%).
3 Sharing responsibility of children: 17.8%.
4 Sharing responsibilities of the elderly: 14.8%.
5 Inability to indulge in addiction as before: 11.9%.

While 12.9% (n = 13) of the positive responders reported to have made emergency hospital visits due to resultant injuries, 76.2% (n = 77) reported to be sad and depressed due to violence. Responders with thoughts of harming themselves (including suicidal thoughts) and of harming the perpetrator were 36.6% (n = 37) and 32.7% (n = 33), respectively. While 38.6% (n = 39) reported not to have ever resorted to any safety/rescue measure, neighbors (21.8%, n = 22), parents' family (18.8%, n = 19), friends (12.9%, n = 13), and children (5.9%, n = 6) were commonly sought for safety. Police, local welfare groups/non-governmental organizations, and helplines were sought only by 3% (n = 3) of positive responders. Due to the COVID-19 lockdown, 22.8% (n = 23) of positive responders reported having difficulty in reaching their usual safety/rescue measure. For items and response choices of the CoViDoVi Questionnaire and the frequency of each response obtained in the survey, see Table S3.

The responses we received reflect an increase in spousal violence since the COVID-19 lockdown in India. Predictably, restrictions (such as social isolation leading to more time spent in close contact) and disruption of jobs and livelihoods (which have been implicated as possible pathways for risk of violence[5]) were the foremost perceived reasons by the victims. Intriguingly, we show that one-fifth of the victims perceived the increased or new violence as being due to 'working from home,' thus suggesting that the 'work from home experiment'[6] not only has various social and economic implications, but also potential negative mental health outcomes. This negative outcome was also perceived to be due to an increase in the spouse's sharing of responsibilities of children and the elderly in the household. This finding reveals the widely prevalent gender inequality and conflict in work–family roles[7] and its worsening due to the pandemic restrictions. As the inability to indulge in an addiction as before was perceived as another reason for increased or new violence by the victims in the present study, spousal violence might therefore be added to the list of problems that pose ethical dilemmas due to COVID-19-restrictions-led 'forced' abstinence from substances.[8]

The rates of physical and mental health consequences reported in our study are in accord with earlier reports.[9] Conforming to the suggestion that disruption of social and protective networks is also a pathway of risk for violence against women,[5] our study found one-quarter of the victims to have faced difficulty in reaching their usual safety/rescue measures due to the COVID-19 lockdown restrictions. Moreover, the findings that only a meager percentage of victims use police, local welfare groups/non-governmental organizations, and helplines, and that about 40% of victims do not resort to any safety measure may relate to perceived dangers of attempting to access these means, especially when the lockdown has led to restricting oneself to constantly sharing the same space with the violent spouse. This calls for creative methods of making various means available to the victims.

With greater levels of spousal violence, the COVID-19 pandemic seems to have posed more problems to the still 'unfinished' agenda[10] of addressing domestic violence against Indian women.

The limitations of our study are shown in Table S4.