Mental stress reaction in a COVID-19 patient: a case report

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Abstract

Background: The outbreak of a global and novel respiratory illness, COVID-19, has also been reported to have come with some neuropsychiatric manifestations. These manifestations are often interpreted as the threat of COVID-19 to the synchrony of the harmony between the mind and the external environment. A case report of one of such disruption to a stable mental state is the aim of this study.

Methodology/Results: We reported a case of a 32-year old single male, who was undergoing treatment for COVID-19 in an infectious disease treatment facility situated in Kaduna, Kaduna State Nigeria. He became anxious on the day of admission prior to the onset of behavioural disturbance. The patient subsequently labelled the intense psychiatric symptomatology as outcome of predominant preoccupation with florid themes of death and dying. Psychotropic medications and brief psychological intervention do contribute immensely to his recovery before and after discharge.

Conclusion: The authors concluded that early identification and intervention of psychiatric manifestations of pandemic diseases will help limit related acute stress reaction and it's transition to post-traumatic stress disorder or other debilitating mental illness. Hence, the inclusion of mental health professionals in the managing team is of paramount consideration in the management of pandemicity.

Key words: COVID-19, Kaduna, Case report, Mental stress reaction

Introduction

The outbreak of a novel respiratory illness caused by an unknown coronavirus was first reported in Wuhan, Hubei Province, China in December 2019. This soon became known as severe acute respiratory coronavirus 2 (SARS-CoV-2) in January 2020 when the World Health Organization declared it a global pandemic. [1,2] The disease resulting from this primary infection of the respiratory system, COVID-19, has also been known to cause neuropsychiatric manifestations. [3,4] Common mental manifestations include stress-related

disorders, anxiety, and depression. These manifestations are often interpreted as the threat of COVID-19 to the synchrony of the harmony between the mind and the external environment. Such disruption to a stable mental state is often a product of stress response, an overloading of the balanced physiological and psychological response to the emergent novel disease. This study aimed to report the neuropsychiatric manifestations of a patient confirmed with COVID-19 infection after being isolated in an infectious disease treatment facility.

Case Report

A 32-year old single male, who lived in Kaduna, Kaduna, Nigeria, who showed symptoms suggestive of COVID-19 infection was hospitalised in an infectious disease treatment centre, after his PCR assay tested positive to a nasal swab sample. The patient is one of the primary contacts of the index case in the 8 million population state. On admission, he was placed on the following medications: alluvia, zinc, immune boosters, azithromycin and non-steroidal antipyretic.

A day after admission, he was observed to be withdrawn on to self, appeared dazed initially and later becomes confused (see Table 1). Hours later he began pacing around the isolation centre, ignored attempts to engage him and slept poorly at night. That night, he breached the isolation protocols walking out of the ward, and making attempts to leave the hospital premises. The following day, the psychiatric team was promptly invited to review the patient on account of gross behavioural disturbance.

The psychiatric team preliminary interview of the primary healthcare providers revealed that the patient was noticed to be anxious on the day of admission prior to the onset of behavioural disturbance. There was no known past psychiatric illness nor the use of alcohol and other psychoactive substance. No relevant psychiatric history could be obtained from the patient who was not responding to interview. On mental state examination, he was found lying on the floor of the isolation ward, mumbling to self, uncooperative, agitated and continue to ignore attempts to engage him. The ignoring of attempts to engage him was later interpreted by patient as an intense burden related to his preoccupation with death and dying. Urgent urine drug analysis for drug abuse was negative. A provisional diagnosis of delirium secondary to acute stress reaction with background COVID-19 was made and a differential of delirium secondary to viral encephalitis. He was served a stat dose of Intravenous diazepam 20mg and

intramuscular haloperidol 10mg; then tabs haloperidol 5mg nocte and also to continue his earlier medication.

The patient was observed to have a significant improvement within twelve (12) hours after administration of the psychotropic treatment. He was no longer restless, sleep improved and was fully conscious and oriented by the evening of the third day of admission. Subsequently, psycho-education and supportive psychotherapy were commenced and sustained, which further met the psychological needs of the patient. He was mentally stable at the time of discharge from the isolation centre following testing negative to two serial PCR assay, two weeks after admission. All medications were discontinued; however, he had a 24-hour access to the psychiatric and the medical team.

At first follow-up, two (2) weeks after discharge, patient reports anxious feelings, difficulty initiating sleep associated with distress dreams (i.e. nightmares related to death and dying from COVID-19), recurrent distressing thoughts about likelihood of still being COVID-19 positive, with overwhelming fears of stigmatisation. At other times, he feels as though he is detached from his surroundings. However, there was no active avoidance of any situation or events. No persistent changes in mood, interest nor energy levels were observed. Further assessment revealed no delusions nor hallucination. He was fully conscious, with good attention and concentration functioning secured and maintained, and memory assessment was also good. He has full insight into his symptoms and experience. His diagnosis was reviewed and revised to Post-Traumatic Stress Disorder (PTSD) with a differential of depression.

He was managed as an outpatient on Tabs clonazepam 1mg nocte for a week and Tabs escitalopram 10mg daily over the next eight (8) weeks. The new medications followed psycho-education on his illness and treatment plan. He reported complete remission of all symptoms and full return to premorbid functions at follow-up a week later. Subsequent follow-ups were initially every week for three (3) weeks, where he received supportive psychotherapy and tabs escitalopram refilled. Over the next four (4) weeks, he was reviewed every fortnight and the medication gradually withdrawn at discharged eight (8) weeks after his initial follow-up. He has since be maintained on regular contact with the therapeutic team since discharge without reports of any significant disturbances in thoughts, emotions, feelings, or behaviours by the patient or his relatives.

Table 1 – Psychological symptoms of the patient

SYMPTOMS OF STRESS REACTIONS	
Confusion	
Anxiousness	
Withdrawn to self	
Restlessness	
Preoccupation with death and dying	
Decrease night sleep	
Nightmares	
Recurrent distressing thoughts of still having the infection	
Fears of stigmatization	
Delay sleep latency	
Depersonalization	
DAYS	1 2 3 4 … 14 15 … 21 … 28 … 35 …

Discussion and Conclusion

According to this case, the patient mental distress ultimately fulfils the DSM-5 criteria for Post-Traumatic Stress Disorder (PTSD) following infection with the novel coronavirus responsible for the current global pandemic. The PTSD was preceded by acute stress reaction. He made a complete recovery from a combination of pharmacological and psychological intervention, and was mentally stable and optimally functional twelve (12) weeks after testing negative to COVID-19 infection.

The provisional diagnosis at first contact was delirium, and this seems more appropriate as it is the common neuropsychiatric manifestation of coronavirus infection.[8] The delirium being secondary to acute stress reaction at first contact also seems more appropriate than delirium due to viral encephalitis. This is because the patient's features lack headache, neck stiffness,

lateralising signs and other notable neurological signs characteristics of viral encephalitis or encephalopathy. In addition, COVID-19 is a major stressor and trauma, [5,9] especially as it bordered on issues of death and dying noted in this patient's preoccupations. As such, the case is expected to manifest more psychological challenges. Furthermore, the patient's good response to psychoeducation and supportive psychotherapy also seems to support acute stress response as a preliminary diagnosis in the patient.

The subsequent diagnosis, Post-Traumatic Stress Disorder (PTSD), of the patient post-discharge also agrees with research finding reporting PTSD as the most common psychiatric manifestation in COVID-19 patients.[4,8] This is a logical flow from unresolved acute stress response to COVID-19. this is especially from continuous traumatization and stigmatization from the panic-triggering information released from the media.[6,10] Another issue that might have prolonged the acute stress reaction to PTSD is the stoppage of the initial psychotropics and the provision of supportive therapy instead of trauma-focused therapy to the patient. Lastly, we found the combination of transient use of clonazepam and longer use of escitalopram useful in symptoms remission within a short period in this patient. Both medication combination has been reported to promote rapid response to anxiety compared to the use of Selective Serotonin Receptor Uptake Inhibitor (SSRI) only.[11]

The differential of depression is unlikely in this case due to absence of low energy, anhedonia, and low mood. Another issue pointing to the likelihood of PTSD and not depression is the continued stability note in the patient for more than eight (8) weeks since stoppage of medication. The good response to the short-term treatment duration, also suggested that the PTSD is not likely to recur in the future.

One of the psychological interventions we provided, psycho-education, appeared not to have been provided until interaction with the psychiatric team. This omission in the general medical management could have contributed to the admission anxiousness that persisted before the psychiatric team's intervention. This underscores the need for including routine psycho-education in the immediate care of patient with COVID-19.

In conclusion, this case highlighted the importance of early identification and intervention of psychiatric manifestations of pandemic diseases. It affirms that early detection, will help limit related acute stress reaction and it's transition to post-traumatic stress disorder or other

debilitating mental illness. This become paramount in the face of continued social information that are panic-triggering in nature and content. The combination of pharmacological and psychological interventions will go a long way in resolving patients' challenges related to acute stress response to COVID-19 and in preventing subsequent conversion to PTSD. The inclusion of mental health professionals in the managing team is, hence of paramount consideration in the management of pandemicity.

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Conflict of interest: Nil