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"Kill Me" COVID-19 Patient Says: A Case Report

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ABSTRACT

Ominous new data suggest that COVID-19 may be linked to psychological and neurological conditions including strokes and psychosis, along with alerting reports of possible rise in suicidal rates due to several factors. This rare case report outlines and documents delirium and suicidal ideation in a sixty-year old patient with critical covid-19 pneumonia. The patient's condition was diagnosed early, and successfully treated in a COVID-19 specialized intensive care unit of King Saud medical city, in Saudi Arabia. This case report highlights the possible association between COVID-19 infection and psychological manifestations, with stress upon the importance of early recognition, through effective communication with patients, and management in a multidisciplinary approach.

Key words: COVID-19, Case Report, ICU, Psychological.

INTRODUCTION

COVID-19 causing respiratory symptoms was first identified in December 2019 in China. [(1)] The World Health Organization (WHO) declared the outbreak of COVID-19 a pandemic on the 11 March 2020. [(2)] Since then, its presentation and effects have been the subject of many publications and studies. The agreement until now that its presentation is variable ranging from mild disease to severe and life-threatening presentation, few studies concluded that covid-19 may infect nervous system and skeletal muscles as well as the respiratory tract. [(3,4)] In those with severe infection, neurologic involvement is greater, which includes acute cerebrovascular diseases, and impaired consciousness. [(3)] A study in UK found that altered mental status was the second most common presentation in COVID-19 patients, comprising encephalopathy or encephalitis and primary psychiatric diagnoses. [(4)]

Where several studies addressed psychological impact of COVID-19 on healthcare workers, [(5)] limited data exist on the psychological impact on COVID-19 patients themselves, this lack of evidence in this field makes it an attraction spot for research, that calls for resourcing by research funders, to shed more light on the psychological and social impacts of the pandemic, [(6)] even less studied is the possible rise in suicidal rates and self-harm, that was suggested in view of similar observations during previous pandemics, [(7)] and attributed to fear, self-isolation, physical distancing, and social stigma towards individuals with COVID-19 infection, particularly among those with already existing psychiatric disorders.

Hence, this case report aims to enlighten about the suicidal ideation of a critically ill COVID-19 patient, with stress on the importance of early recognition and intervention.

CASE REPORT

A sixty-two-year-old Asian male was admitted, in the first of July 2020 to ICU complaining of new onset fever (38.5 ^{o} C), persistent dry cough, myalgia, fatigue and shortness of breath for 5 days the patient had no past history of chronic disease or psychological issues.

Physical examination revealed bilateral coarse crepitation over his chest in addition to decrease breath sounds basally general examination including neurological assessment was normal, he was requiring 12 lpm of oxygen through simple face mask to maintain a saturation of peripheral oxygen above 92%. Chest x-ray showed extensive bilateral interstitial infiltrates (figure 1), laboratory findings showed total leukocytosis (25.7×10^{3}/uL) with lympho-penia (0.673×103/uL), lactate dehydro-genase 832 units/liter(normal: 100–190 units/liter), and ferritin (756 ng/ml, normal: 23–336 ng/ml).

Nasopharyngeal swabs confirmed COVID-19 by Real-Time-Polymerase-Chain-Reaction (RT-PCR) assays using QuantiNova Probe RT-PCR kit (Qiagen) in a Light-Cycler 480 real-time PCR system (Roche, Basel, Switzerland)(3-5). Our ICU is specialized in the management of covid-19 cases and gained a lot of experience in dealing with such patients, not to mention that it is considered one of the largest in the region with 200 isolation rooms.

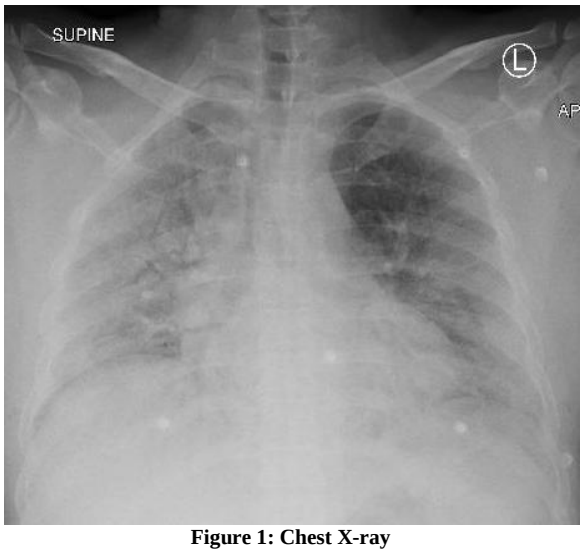

Figure 1: Chest X-ray
Extensive bilateral interstitial infiltrates

Figure 2: "KILL ME" note written by the patient on his palm.

We activated our treatment protocol consisting of antiviral therapy (Favipiravir 1800 mg twice a day for first day followed by 800 mg twice a day for 10 days), Dexamethasone 6 mg IV daily for 10 days, Enoxaparin 40 mg twice a day in addition to Ceftriaxone 2 gm IV once a day, and Azithromycin 500 mg a day for three days, in addition to Extra Corporeal Membrane Oxygenation (ECMO) support and Tocilizumab as a standby options.

His course of management continued with stable parameters, his oxygen requirement and his hemodynamic status were stable. On the fifth day he started to become agitated and showed aggressive behavior toward the staff, his aggression continued to progress with refusal of eating and talking. He wrote on his palm a quite disturbing note, he wrote "KILL ME" (figure 2). We consulted our psychiatric team and their impression was that the patient is showing features of suicidal ideation with clinical depression. Amitriptyline 100 mg once daily at morning time and Mirtazapine 15 mg once daily at night time were prescribed and management started immediately. Computerized Tomography (CT) and Magnetic Resonance Imaging (MRI) of the brain were normal. After 5 days his condition started to improve, his compliance with treatment was remarkably better, we allowed his family to visit and interact with him behind the glass. His Oxygen supportive care was discontinued on day 13. RT-PCR test for COVID-19 and microbiology were negative

on day 15. He was discharged to the ward on day 16, and was being followed-up by our psychiatrist and medical team.

DISCUSSION

As COVID-19 infection remains a field of ongoing research and analysis, we thought it would be beneficial at the moment to analyze similar infection, so we started to visit major publications regarding psychiatric manifestation of acute SARS and MERS. A lot of data has been published ranging from case series, cross sectional studies and cohort studies that focused on the psychiatric part. The biggest was Lee et al (2004) [(8)] in Hong Kong who screened 1744 SARS-COV cases and the finding were steroid-induced manic episode, steroid-induced psychotic disorder, major depressive episode with psychotic features, and psychotic disorder not otherwise specified. Locally in Saudi Arabia another Qualitative study by Almutairi et al (2018) [(9)] found seven cases with MERS-COV suffering from anxiety, fear, and despair. And finally a systematic review and meta-analysis that was published in 2020 in lancet psychiatry by Jonathan P Rogers et al [(10)] revealed that during the acute illness, common symptoms among 129 patients admitted to hospital for SARS or MERS included confusion (36%), depressed mood (42%), anxiety (46%), impaired memory (44%), and insomnia (54%). Steroid-induced mania and psychosis were reported in 13 (0·7%) of 1744 patients with SARS in the acute stage in one study. In the post-illness stage, depressed mood occurred in 35% of 332 patients, insomnia in 34% of 280, anxiety in 21% of 171, irritability in 28% of 218, memory impairment in 44% of 233, fatigue in 61% of 316, and in one study traumatic memories and sleep disorder were frequently reported. The review concluded that signs suggestive of delirium are common in the acute stage of SARS, MERS; in addition to depression, anxiety, fatigue, and post-traumatic stress disorder in the post-illness stage of previous coronavirus epidemics. So, if infection with COVID-19 follows a similar course to that of SARS-CoV or MERS-CoV, patients might suffer delirium in a significant proportion in the acute stage. Clinicians should be aware of the possibility of depression, anxiety, fatigue and post-traumatic stress disorder.

With rising number of covid-19 cases presenting with stroke, it might be safe to estate that coronavirus is a blood vessel disease as well as a respiratory infection, so a small stroke could be the reason of such presentation, in our case CT brain and MRI were done excluding this possibility. Our patient developed a depression that could be multifactorial, it could be a side effect of the steroid he was receiving or it could be a direct psychological stress the happened because of his perception toward covid-19 and what he learned about its outcome in the news, other possible contributing factor is the isolation in the hospital and its implications specially on elderly population.

COVID-19 is a very stressful experience for everyone, particularly those requiring isolation in the hospital setting, so clinicians need to have a holistic approach to patients, bearing in mind possible psychological outcomes, rather than a focused attention to respiratory consequences. Good communication skills is vital in establishing a connection between physicians in patients (whenever possible) to talk to those experiencing psychosis who will – inevitably – be distressed and agitated. Clinicians may also benefit from taking the advice of mental health specialists.

Authors' Contributions

Conceptualization: ASN, AMA. Data curation: ASN, KhH, EH, AFM, AR. Formal analysis: ASN, AR, KhH, EH, WA, AFM. Methodology: ASN, AMA, WA, AFM. Project administration: AFM. Visualization: ASN, AMA, AFM. Writing – original draft: ASN, WA. Writing – review & editing: AFM.

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Conflict of Interests
"No potential conflict of interest relevant to this article was reported".

Ethical Approval
The study was approved by the Ethics committee of the hospital. Written informed consent was obtained from the patient.

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