

Depression and Anxiety among patients suffering from mild to moderate Covid-19 Disease

SYED ASIM ALI SHAH¹, USAMA BIN ZUBAIR², MUHAMMAD NADEEM³, MUHAMMAD FAHEEM QASIM⁴, SYED AZHAR ALI⁵, RIFFAT YASMEEN⁶

¹Department of Medicine, Wah Medical College Wah Cantt, Pakistan

²Department of Psychiatry, University Hospital Dublin Ireland

³Department of Medicine, Poonch Medical College, Rawalakot Azad Kashmir, Pakistan

⁴Department of Psychiatry, Wah Medical College Wah Cantt, Pakistan

⁵Department of Psychiatry, Poonch Medical College Rawalakot Azad Kashmir, Pakistan

⁶Department of Medicine, Wah Medical College Wah Cantt, Pakistan

Correspondence to Dr. Muhammad Nadeem, E mail: docnadeem78@gmail.com, Contact: 03338152232

ABSTRACT

Aim: To look for the presence of depression and anxiety among patients suffering from mild to moderate COVID-19 disease.

Methodology: This cross sectional study was conducted at Department of Medicine, Pakistan Ordinance Factory (POF) Hospital Wah Cantt from 1st April 2020 to 30th September 2020. Patients presenting to Pakistan Ordinance Factory (POF) Hospital Wah Cantt with relevant symptoms and tested positive on polymerase chain reaction for COVID-19 were included in the study. Hospital anxiety and depression scale (HADS) was administered to look for the presence and severity of anxiety and depression among the study participants.

Results: Total 101 patients were included in the study, 76.2% were male while 23.8% were female. Mean age of the patients was 53.50 ±13.281years. Out of 101 patients, 33.7% did not show any sign of anxiety and 42.6% showed borderline anxiety while 23.8% had confirmed anxiety. Depression was not found in 72.3%, borderline depressive symptoms were present in 25.7%, while 2% had confirmed depression.

Conclusion: Depression and anxiety were common findings among patients admitted in hospital with COVID 19. Anxiety was more common than depression in these patients. Borderline anxiety and depression were found in most of the patients which may need formal psychiatric consultation for exact diagnosis.

Keywords: Anxiety; covid-19; depression, Pakistan

INTRODUCTION

Various pandemics have hit across the human race on number of occasions. Hundreds and thousands of people across the world died due to these pandemics¹. This time it is COVID 19 hitting the mankind and affecting all the aspects of lives of human beings across the globe for more than one year². COVID 19 emerged in chine in December last year and within months spread to almost all parts of the world³. Millions of people have acquired this infection until now and a huge number of them also developed complications and even died³.

Everyone including the governments, non-governmental organizations, health organizations and media has been emphasizing on preventive measures related to stop the spread of this novel corona virus and treatment of the disease⁴, less emphasis has been laid on the psychiatric morbidity associated with this pandemic. There could be multiple biological, psychological and social consequences of acquiring this viral infection which may lead to mental health problems among victims⁵.

Direct and indirect effects of any viral illness may predispose the patients to develop psychological problems. Coughlin published a comprehensive review in this regard in 2017 highlighting the fact that depressive symptoms and anxiety have been associated with number of common and rare viral illnesses and these symptoms should not be ignored while treating these patients with antiviral or any other medications⁶. Things may get worse if there is new illness regarding which even health professionals don't know much and new and sensational stuff comes on media each day. When that illness becomes a pandemic and whole world seem helpless in front of it then the sufferers may suffer from a lot of physical and emotional reactions leading sometime to severe mental health problems⁷.

A study published in China earlier this year summarized that anxiety and depression were commonly seen among patients suffering from this novel virus. Generalized anxiety was the commonest variant of anxiety among these patients. Though

physical complications were suspected more in older age group but mental health problems were commonly seen in younger age group. Health professionals also suffered from sleep related problems.⁸ Another recent study published similar findings that patients suffering from COVID 19 infection and admitted in hospital are more at risk of developing depression and anxiety symptoms. Routine screening of such symptoms among these patients may be helpful in early detection and appropriate management⁹.

We in our country are having number of new cases, numbers have been increasing enormously¹⁰. There has been some qualitative and quantitative work published regarding illness narratives and mental health of patients suffering from COVID 19^{11,12} but limited work has so far been published focusing on presence of depression and anxiety symptoms among patients diagnosed with this novel corona virus. Media may it be electronic, print or social have been a major stake holder in current pandemic. Disseminating a lot of processed and unprocessed information towards the victims or potential victims may prolong or maximize the misery and prone them towards more than expected damage especially in terms of their mental health. We therefore planned this study to explore this phenomenon and look for presence of anxiety and depression among patients admitted with COVID 19 in our hospital.

METHODOLOGY

This cross-sectional study was planned and conducted at Department of Medicine, Pakistan Ordinance Factory (POF) Hospital Wah Cantt from 1st April 2020 to 30th September 2020. Sample size was calculated by using the sample size calculator for observational studies. Non probability consecutive sampling was used to gather the sample. Patients more than 18 years of age tested positive (routine PCR in a tertiary care teaching laboratory under consultant virologist)¹³ with confirmed exposure of covid-19 and admitted in covid-19 ward without having any complications were included in the study. All such patient either asymptomatic or with mild symptoms like fever, sore throat and body aches were included in the study. Patients already diagnosed with any psychiatric illness or illicit substance use and currently on treatment for any chronic disease were not included in the study.

Received on 24-06-2021

Accepted on 14-11-2021

Pregnant females, patients on any kind of steroid or cytotoxic therapy or those more than 60 years of age were also excluded from the study.

Hospital anxiety and depression scale (HADS) was used to see the anxiety and depression along with the socio-demographic Performa and participants asked to answer according to their condition in last two weeks. Hospital Anxiety and depression scale is a standardized psychometric test for assessing the presence and severity of anxiety and depression among the patients admitted in hospital. It is a 14-item rating instrument with seven items for anxiety and seven for depression. A total subscale score of >8 points out of a possible 21 denotes considerable symptoms of anxiety or depression. We considered 8-10 as borderline normal and 11-21 as confirmed case. Validated Urdu version was used to include maximum patients as most of the patients could not complete the questionnaire in English¹⁴. Ethical approval was taken from the Research Ethics Committee of hospital vide letter no. POFH/ERC/99053/06. Informed verbal consent was taken from the patients.

Statistical analysis was done by SPSS 24.0. Frequency and percentage were calculated for the gender and patients suffering from anxiety or depression on the basis of HADS score. Mean and standard deviation was calculated for age of study participants and total anxiety and depression scores of study participants.

RESULTS

After the application of inclusion and exclusion criteria 101 patients were included in the final analysis. Mean age was 43.50 ±13.281 years, 77(76.2%) were male while 24(23.8%) were female. Mean anxiety score of target population on HADS was 7.88±5.177 while mean depression score was 5.68±2.96. Out of 101 patients included in the study, 34(33.7%) did not show any anxiety, borderline anxiety was present in 43(42.6%), while 24(23.8%) had confirmed anxiety (Table I), 73(72.3%) had no depression, 26(25.7%) had borderline depressive symptoms while 2(2%) had confirmed depression on HADS. (Table II). There was no association of anxiety and depression with the gender of the patients (Table III), no significant association was found with the age also.

Table I: diagnosis of anxiety based on HAD

	Frequency	%age
Normal 0-7	34	33.7
Borederline case 8-10	43	42.6
Abnormal case 11-21	24	23.8

Table II: diagnosis of depression based on hads

	Frequency	%age
Normal 0-7	73	72.3
Borederline case 8-10	26	25.7
Abnormal case 11-21	2	2.0

Table III: Association of anxiety and depression with the gender of the patients

Gender	Normal 0-7	Borderline case 8-10	Abnormal case 11-21	Total	P value
Anxiety					
Male	29	28	20	77	.076
Female	5	15	4	24	
Total	34	43	24	101	
Depression					
Male	56	19	2	77	.68
Female	17	7	0	24	
Total	73	26	2	101	

DISCUSSION

Anxiety and depression were quite common among Covid-19 patients with mild to moderate disease in our study. Anxiety was more common as compared to depression, more than 65%

patients were found to have anxiety either borderline or confirmed. Depression was found in 28 % patients.

Pandemics are difficult to deal with no matter how well equipped humans become. Despite advancements in various fields of science and medicine, these challenging situations become a real test for nations. Various reactions may be observed in response to these pandemics on individual as well as collective levels. Mental health problems have been usually found among sufferers of viral illness during various epidemics and pandemics¹⁵. Rohr et al. published a review comprising of 13 studies on quarantine and mental health of individuals and revealed that across 13 identified studies, quarantine measures were consistently associated with negative psychosocial outcomes, including depressive symptoms, anxiety, anger, stress, post-traumatic stress, social isolation, loneliness and stigmatization¹⁶. Our data from isolated patients in the covid-19 ward showed similar results.

Anxiety and depression are common problems among patients suffering from different diseases. Bener A et al showed anxiety was indicated in 18.7% males and 24.6% females on HADS-A scale, whereas depression in 26.6% males and 30.1% females on HADs-D scale, visiting Primary Health Care Centers¹⁷. Anxiety was present in 50% and depression in 28% patients admitted with COPD in another study¹⁸. Although depressive illness was almost same but percentage of anxiety was much higher in our study, showing that anxiety is more common in patients with COVID-19 disease as compared to other health problems. This may be due to lot of processed and unprocessed information from media, novel nature of the disease, uncertainty about treatment options, many myths and conspiracy theories regarding COVID 19 in Pakistan.

Many studies around the globe have shown that anxiety and depression are common findings among COVID 19 patients who were otherwise healthy. Sherman et al. showed the rising trends of depression and anxiety during COVID pandemic¹⁹. Patients with symptoms of COVID 19 or those positive for COVID 19 showed significantly more depression, anxiety and trauma scores as compared to others¹⁹. We only targeted patients tested positive for COVID 19 and observed similar trends regarding presence of depression and anxiety. Papers published from China and Italy have similar findings, showing that anxiety and depression are common mental health problems among COVID patients^{20,21}. A recent study from Pakistan showed that depression and anxiety were present in 27.4% people in general population, our results showed that 66% patients had anxiety, depression was found in 28 % patients²². This shows that anxiety and depression are more common in COVID 19 patients as compared to general population. Lei et al. recently published a case control study in China recruiting the patients affected with COVID 19 and age and gender matched controls. They concluded that depression and anxiety were found significantly more among the cases affected with COVID 19 as compared to controls and depressive symptomatology was more common than anxiety in their study participants²³. Our study design was cross-sectional and we did not include the control group but still found higher rates of depression and anxiety in the target population but unlike data generated by Lei et al, anxiety was more common than depression in our patients.

A lot of papers have been published recently regarding mental health of COVID 19 patients as well as the frontline health care workers but most of them have either small sample size or they have generated a very preliminary data. Nationwide Survey of Psychological Distress among Italian People during the COVID-19 pandemic concluded that female gender, negative effect, and detachment were associated with higher levels of depression, anxiety, and stress.¹⁹We did not find any association of female gender with anxiety or depression among our study participants. This may be due to low percentage of female patients in our study.

A study was published in Iran which was qualitative in design and revolved around the emotional and psychological reactions of patients suffering from COVID 19. There were multiple negative

psychological reactions recorded in that study and overall quality of life was also found grossly affected among the affected individuals.⁷ Our screening results with HADS emphasized same that these patients are more at a chance to suffer from anxiety and depression therefore timely detection of such symptomatology is of utmost importance.

There were many limitations in our study. Results of a questionnaire and that too self-rated questionnaire based study cannot be generalized. Patients especially those with high HADS score should have been interviewed by a psychiatrist for a psychiatric diagnosis to generalize the results and generate exact figures with regards to presence of depression and anxiety among patients admitted with COVID 19.

CONCLUSION

Depression and anxiety were common findings among patients admitted in hospital with COVID 19. Anxiety was more common than depression in these patients. Borderline anxiety and depression were found in most of the patients which may need formal psychiatric consultation for exact diagnosis.

Conflict of interest: Nil

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