CASE REPORT

PSYCHOTIC DEPRESSION IN HEALTHCARE WORKERS DURING THE COVID-19 HEALTHCARE CRISIS: A CASE SERIES

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ABSTRACT

Introduction. After the initial phases of the COVID-19 pandemic, new waves have occurred that have chronicled the epidemiological situation. This could especially affect the Mental Health of healthcare professionals with the appearance of serious conditions such as psychotic depression. The objective of this article is to describe a series of cases of psychotic depression in health professionals during the chronic phase of the sanitary crisis.

Methods. We report three cases that involve three healthcare professional patients with psychotic depression treated at Santa María University Hospital (Lérida, Spain) from the end of the first alarm state (June 2020) to the end of the second alarm state (May 2021) in Spain.

Results. The three cases share the appearance of depressive symptoms accompanied by psychotic symptoms months after the acute phase of the pandemic. All of them were health professionals and belonged to the epidemiological groups at highest risk. None of the patients presented symptoms compatible with the infection, although one patient tested positive for COVID-19. All of them required hospital admission and were treated with the combination of an antidepressant and an antipsychotic with a good response.

Conclusions. The chronic phase of the health crisis due to COVID-19 has important consequences on the Mental Health of healthcare professionals due to the appearance of serious conditions such as psychotic depression. It is necessary to carry out specific monitoring of this population at risk to prevent the appearance of serious symptoms and to initiate treatment in the initial phases.

Keywords. Psychotic depression, mental health, COVID-19, healthcare workers

INTRODUCTION

Since the beginning of the COVID-19 pandemic, healthcare professionals have been considered a population at risk to experience Mental Health problems given the increase in external stressors and emotional overload. Several studies show an increment in depression and anxiety during the first wave of the pandemic[1] and reactive psychosis have been reported as a consequence of the acute stress of the moment[2].

During successive waves, new stressors emerge which last for a long period of time, such as work overload and adaptation to restrictive measures endlessly. The chronicity of these stressors could affect Mental Health in a different way than what happened during the first wave and the appearance of psychotic and affective conditions[3] is expected, including depression with psychotic symptoms or psychotic depression (PD). The objective of this article is to describe a series of PD cases in the context of the COVID-19 pandemic.

MATERIALS AND METHODS

We present 3 cases of healthcare professionals with PD who were treated at the Santa María University Hospital (Lérida, Spain) during the COVID-19 crisis from the end of the first state of alarm (06/21/2020) until the end of the second state of alarm (05/09/2021). Psychotic conditions attributable to the physiological effects of substances or other medical conditions were ruled out. The patients were evaluated upon admission with the Depression Scale of Montgomery-Asberg (MADRS)[4] and with the Brief Psychiatry Rating Scale (BPRS)[5]. The diagnosis of PD was made according to the DSM-5 criteria. All patients gave their consent to publish this report.

RESULTS

Table 1 Summary of Background and Clinical Data.

	A	B	C
Sociodemographic Data:			
- Age (years)	59	48	43
- Gender	Woman	Man	Woman
- Civil status	Married	Single	Divorced
- Education	Academic	Basic	Mid-level
- Profession	Nurse	Hospital attendant	Nursing assistant
Background::			
-Personal medical history	High blood pressure, glaucoma	No antecedents	Irritable bowel
-Personal psychiatric	Depressive episode in youth in complete remission	No antecedents	Adaptative disorder in complete remission
- Family psychiatric	Denied	Denied	Denied
Clinical information:			
-MADRS	43	47	44
- BPRS	35	39	34
-BPRS Positive symptoms subscale (PSS)	10	13	9
-PCR COVID-19	Positive	Negative	Negative
- Days of admission	20	19	30
- Treatment	Bupropion 300mg/24h Asenapine 10mg/24h	Fluoxetine 40mg/24h Risperidone 4mg/24h	Sertraline 100mg/24h Olanzapine 7.5mg/24h

1. Case A

Mrs. A was a 59-year-old married woman with a history of high blood pressure, glaucoma, and a depressive episode in youth in complete remission. She worked as a nurse in a Primary Care center. During the second wave of the pandemic, the patient presented anxious symptoms that were treated with diazepam 5mg/24h, with little response. Two weeks later, she left work after developing depressive symptoms. In the last days, hypochondriacal delusions in relation to a possible COVID infection and harm delusions related with family money (without sensory perceptual alterations) appeared. She showed a slowed speech, with occasional blocks, high internal tension and insomnia. The patient was hospitalized and the COVID19-PCR was positive despite not presenting any respiratory symptoms. She was treated with prolonged-release bupropion 300mg/24h and asenapine 10mg/24h. The duration of admission was 20 days with resolution of the depressive and delusional symptoms. She is currently doing outpatient psychiatric follow-up.

2. Case B

Mr. B was a 48-year-old man with no significant medical or psychiatric history. He was an occasional alcohol and tobacco user. He works as a hospital attendant and lives alone. He was divorced with no children and had little family support. He was brought to the emergency room after his nephew visited him at his house and found that the patient had psychomotor retardation, with thought block thinking and an inhibited attitude and significant lack of self-care and personal hygiene. He expressed generalized fears, fearing that people would want to harm him, as well as auditory hallucinations that ordered him to self-harm. He was hospitalized; treatment was started with fluoxetine up to 40mg/24h and risperidone up to 2mg/12h. After 19 days of hospitalization, both affective and psychotic symptoms improved and he was discharged with outpatient follow-up till today.

3. Case C

Mrs. C was a 43-year-old woman with a medical history of irritable bowel and adjustment disorder that started 4 years ago after her divorce. At the moment, she was living with her 19-year-old daughter. She worked as a nurse in a nursing home during the first COVID wave. At he beginning, she went to her GP reporting symptoms of anxiety for fear of making mistakes with the prophylactic measures against COVID-19. Three months later, she was brought to the psychiatric emergency room by her daughter, who explained that the patient was less and less communicative and that she had stopped working in recent weeks. She presented hypothymia, apathy, anhedonia and a scant speech with delusional contents of guilt, ruin and uselessness, verbalizing "it was all my fault", "they are going to die because of me", "I do not deserve to live". Due to psychotic symptoms and suicidal ideation se was hospitalized in the psychiatry department. Sertraline was started up to 100mg/24h and olanzapine up to 7.5mg/24h. The duration of admission was 30 days, with progressive remission of the delusions and resolution of the depressive symptoms. She is currently receiving outpatient psychiatric follow-up

DISCUSSION

We present three cases of health professionals with PD during the evolution of the COVID-19 pandemic. Reactive psychosis have previously been reported in the peak context of confinement[6], although to our knowledge, there are no cases reported of PD related to the chronic stress of the pandemic.

The main value of this series of cases is that it reinforces the opinion that a situation of stress maintained in vulnerable and at-risk individuals can trigger serious mental pathology such as PD. The idea that COVID-19 infection itself can cause psychosis through direct neurotoxicity or an elevated immune response does not seem far-fetched[7] and clinical cases have been reported in this regard[8–12]. In our case, however, none of the patients presented symptoms compatible with the infection and only one was positive for COVID-19. Regarding the content of the delusions, two of our patients showed COVID-19 related ideas, however in one of them the concern had nothing to do with the current epidemiological situation.

A greater impact of the peak stress of the pandemic has been described in those health professionals with previous mental pathology, in women, in those with greater exposure to the virus, in those infected or in contact quarantine and in nursing assistants[1]. Health professionals are also more likely to experience stress-related psychotic symptoms, which is why specific support and monitoring has been proposed for this group[13].

The three cases that we present share the appearance of depressive symptoms with psychotic symptoms months after the peak phase of the pandemic. Although none had a history of serious mental disorder or substance abuse, there was a history of other mental disorders in two of them and all of them were health professionals in the highest risk groups (nursing assistants, nurses and hospital attendant). Therefore, it seems reasonable to think that high stress maintained over time in vulnerable individuals was the main trigger.

The presence of psychotic symptoms in a depressive episode increases the risk of recurrence and long-term mortality. Current guidelines recommend treatment with a combination of an antidepressant and an antipsychotic[14]. The patients were treated using the aforementioned combination, and the duration of the combined treatment was individually assessed in the clinical remission phase.

In conclusion, the COVID-19 pandemic has serious consequences on the Mental Health of health professionals, not only in the peak phases, but also in the chronic phase of the health crisis. Therefore, it is necessary to develop early identification programs and carry out specific monitoring on this population.

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