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Letter to the Editor

Psychosis in a patient with anxiety related to COVID-19: A case report



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Dear Editor,

The actual pandemic of the new Coronavirus disease (COVID-19) represent a threat for the physical and mental health of the population. We have to consider the psychological effects this pandemic can cause in healthy population, as well as the exacerbations in people with psychiatric illnesses (Fischer et al., 2020). Among the problems we can find in the general population we encounter health anxiety, which is characterized by catastrophic interpretations of bodily sensations and physical changes, which generates dysfunctional beliefs about health and illness (Asmundson and Taylor, 2020b). We report a case of a patient with no history of mental illnesses who developed psychotic symptoms caused by a feeling of anxiety related to COVID-19.

1. Case report

We report a 38-year-old woman, from Lima, married, with secondary school education complete. The fourth of five siblings. With no somatic nor psychiatric history. The patient's functioning before the illness was adequate, with a good job performance.

March 9th went to the dentist's office. The patient claims that on that occasion, the dentist did not wear the mask while performing the treatment. He told her he was back from France, and that made her worry because she believed that he could be potentially infected by COVID-19. When she got home she started to feel "really anxious", she was constantly thinking of what had happened. Four days later she reported malaise and no quantified fever, for which she was given 15 days off from work. During those days her increasing anxiety reached the point where it interfered with her sleep. After those 15 days she began to listen to a voice which ordered her to go to a health center in order to be tested for COVID-19. The patient, following the voice instruction, went to a health center, where the medical examinations she underwent determined she had no condition to be tested for COVID-19. Nevertheless, the voice persisted with its command. For this reason, she visited two more health centers, trying to get tested. As days passed, the auditory hallucinations, which had increased in frequency, worsen her anxiety. She started to feel that at night "an evil demonic force which would take her soul in order to possess her". Those symptoms persisted for 11 days. Eventually, those auditory hallucinations ordered her to kill her family, which she attempted unsuccessfully. For this reason, she

was taken to the Emergency Department of our hospital. At the beginning, during physical evaluation we did not find any significant alteration. The biochemical blood analysis was normal. Quality detection of IgM/IgG antibodies against COVID-19 was non-reactive. She underwent a computerized axial tomography: no structural injury was displayed. We decided hospitalization in the psychiatry department was required.

Through the mental exam done at her admission to the hospital, we found her awake, disoriented in time and space, with poor insight, hallucinations both visual ("I see shadows") and auditory of imperative, conversational and pejorative kind, attributed to the devil that possessed her, circumstantial thinking, delusions of persecution, guilt and punishment, poor abstraction capacity, marked psychotic anxiety, sense of guilt, sadness, frustration, self-undervaluation, hypobulia, hyporexia, insomnia. When evaluating with Positive and Negative Syndrome Scale (PANSS) we found a total score of 117/210, the positive scale score was 24/49, the negative scale score was 26/49 and the general psychopathology score was 67/112.

She was diagnosed with an acute psychotic disorder. The treatment consisted in quetiapine 500 mg/day and clonazepam 1 mg/day. During the first week of hospitalization she showed a rapid improvement of the psychotic and anxiety symptoms, sleep improved as well. The total PANSS after 14 days of hospitalization was 44/210, the positive scale scored 9/49, the negative scored 11/49 and the general psychopathology score was 24/112. Thanks to the clinic improvement observed by the health personnel and the family, the patient was discharged.

2. Discussion

Several studies have shown that COVID-19 pandemic has originated fearful reactions and psychological stress to the general population due to the high infection rate of the virus and to the increasing number of confirmed cases and fatalities worldwide (Qiu et al., 2020; Wang et al., 2020). In these studies women were reported to experience greater levels of psychological distress and anxiety. In some cases, this anxiety could lead to the interpret harmless bodily sensations as evidences of a COVID-19 infection. This happened to our patient, thus, increasing her anxiety and interfering with her capability of making rational decisions, which could generate maladaptive behaviour, such as going often to

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medical centers in order to rule out the disease, an excessive hand-washing or anxiety for buying medical equipment for personal protection (Asmundson and Taylor, 2020b). The term “coronaphobia” has been suggested as an extreme and irrational fear related to COVID-19 (Asmundson and Taylor, 2020a). There are already reports that this fear may trigger the manifestation of psychotic symptoms in patients with previous mental illnesses (Fischer et al., 2020). Nonetheless, as far as we know, this is the first reported case of the onset of psychotic symptoms in a person with no history of psychiatric illnesses, triggered by the fear of Covid-19. We have to emphasize the rapid favourable clinical outcome of our patient which aligns with other reported cases of brief psychosis.

Through the observation of the current case we conclude that we must pay great attention to the diagnosis, course and treatment of anxiety caused by COVID-19, since if not treated promptly it could trigger greater problems such as psychosis, with the consequent risks for one's life own or the life of another individual.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.113052](https://doi.org/10.1016/j.psychres.2020.113052).

References

- Asmundson, G.J.G., Taylor, S., 2020a. Coronaphobia: fear and the 2019-nCoV outbreak. *J. Anxiety Disord.* 70, 102196. <https://doi.org/10.1016/j.janxdis.2020.102196>.
- Asmundson, G.J.G., Taylor, S., 2020b. How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *J. Anxiety Disord.* 71, 102211. <https://doi.org/10.1016/j.janxdis.2020.102211>.
- Fischer, M., Coogan, A.N., Faltraco, F., Thome, J., 2020. COVID-19 paranoia in a patient suffering from schizophrenic psychosis - a case report. *Psychiatry Res.* 288, 113001. <https://doi.org/10.1016/j.psychres.2020.113001>.
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., Xu, Y., 2020. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen. Psychiatr.* 33 (2), e100213. <https://doi.org/10.1136/gpsych-2020-100213>.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C.S., Ho, R.C., 2020. Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in China. *Int. J. Environ. Res. Public Health* 17 (5). <https://doi.org/10.3390/ijerph17051729>.

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