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## Letter to the Editor

**SCHIZOPHRENIA in the midst of a COVID-19 outbreak in a psychiatric hospital in COLOMBIA**

## A B S T R A C T

Herein, the characteristics of a group of hospitalized schizophrenic patients diagnosed with SARS Cov-2 are reported. The total number of COVID-19 positive schizophrenic patients at the time of this investigation was 46. During an internal outbreak in the clinic, all inpatients were diagnosed via PCR tests. Half the patients showed no symptoms of COVID-19, 22 (47.8%) patients suffered from associated diseases including hypertension and dyslipidemia, four patients had to be transferred to a General Hospital for pneumonia treatment, and none of the patients required ICU treatment. All patients recovered. Twenty of the patients were on clozapine as antipsychotic treatment.

Dear editor,

Schizophrenia is a significant disease affecting more than 21 million people worldwide, these patients are at higher risk of suffering cardiovascular diseases and have a lower life expectancy than the general population (Charlson et al., 2018). In the midst of the COVID-19 pandemic, schizophrenic patients are more prone to contracting the infection with significant complications (Fonseca et al., 2020).

This report describes the sociodemographic and clinical features of 46 patients with schizophrenia diagnosed with COVID-19 infection in the midst of an outbreak in the Clínica de Nuestra Señora de la Paz, Bogotá, Colombia, an institution that provides inpatient and outpatient services. It is one of the largest mental health facilities in the country, with 378 beds. During the onset of the epidemic, on April 11, 2020, the clinic adjusted its care model, organized isolation wards for patients, transferred all outpatient services to telemedicine services, organized a continuous training system for all employees, and tested all patients of the institution. A total of 110 patients had a positive RT-PCR result for COVID-19, 46 of which (41.8%) had an existing diagnosis of schizophrenia, 40 were male and with an average age of 47. A clinical follow-up for 78 days, with RT-PCR when needed, was conducted.

The findings showed that 32 (69.5%) of the patients with schizophrenia were institutionalized and that half the schizophrenic patients with a positive PCR did not develop symptoms of COVID-19 infection, the most frequent symptoms were dry cough,odynophagia and fever. A total of 22 (47.8%) patients had at least one comorbidity, with hypertension and dyslipidemia being the most frequent, three patients required treatment in a General Hospital for COVID-19 pneumonia, and one for bacterial pneumonia. They all had a history of smoking, none of them required admission to the intensive care unit, and they all recovered satisfactorily.

Patients with positive PCRs were transferred to isolation wards for daily observation by the psychiatry service and general practice, where they received some type of therapeutic action, and were later discharged or transferred to wards for chronic patients after 15 days without any symptoms and with a negative RT-PCR test result.

Although symptoms of anxiety were observed, these were mild and transient, and did not require changes in the pharmacological treatment,

psychotic symptoms were not increased and no differences in the psychiatric evolution between the COVID-19 group and the non-infected group were observed.

Among the antipsychotic drugs administered, clozapine was administered to twenty patients in doses between 25 and 600 mg/day (50 to 1200 chlorpromazine eq mg/day), with a mean of 258 mg/day (516 chlorpromazine eq mg). No toxicity effects associated with the drug were observed. All four patients with pneumonia were on clozapine. No dose adjustments or medication changes were made.

This report found that a high percentage of the patients affected by COVID-19 in a mental health institution had an existing diagnosis of schizophrenia (41.8%). Thus, inappropriate self-care, the increased risk of acquiring pneumonia, and the high frequency of comorbidities could have contributed to their susceptibility to COVID-19. Notably, the four patients diagnosed with pneumonia were being treated with clozapine. Three of them developed COVID-19 pneumonia, and they all recovered. Special monitoring has been recommended for this population given the risk factors described, such as hypertension, diabetes, and frequent smoking. (Kozloff et al., 2020). The use of clozapine has been a subject of concern because it can increase the risk of pneumonia and its subsequent complications (de Leon et al., 2020a). Although the relationship of clozapine with COVID-19 infection in schizophrenic patients has not been accurately established yet (de Leon et al., 2020b), it is recommended to continue the clozapine treatment under strict observation of symptoms of drug intolerance or toxicity (Fonseca et al., 2020). Herein, the four patients continued receiving clozapine without any changes.

The treatment of patients with mental disorders in hospital settings represents a challenge in times of COVID-19, because, ideally, patients' hospital stay should be shortened to reduce infection risks. However, considering the presence of patients with positive PCR results, increasing hospitalization to two weeks or more as necessary. In the present case, acute patients were hospitalized for an average of 28 days, rendering the adaptation of therapeutics necessary not only to mitigate the risks of infection but also to detect any early clinical signs of the infection and prevent stressful reactions and mood or sleep disturbances that isolation may generate.

Outpatient treatment for patients with schizophrenia also needs to be modified to introduce telemedicine models, educate patients and their

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families regarding COVID-19 infection, and implement a stricter follow-up, including the observation of signs and risk factors associated with COVID-19 infection.

#### CRediT authorship contribution statement

**Eduardo Rendon-Quintero:** Validation, Writing - review & editing.  
**Karla Ortiz:** Data curation, Writing - original draft. **Alexie Vallejo Silva:** Investigation, Methodology, Supervision.

#### Declaration of Competing Interest

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Eduardo Rendon-Quintero<sup>a,\*</sup>, Karla Ortiz<sup>b</sup>, Alexie Vallejo Silva<sup>c</sup>  
<sup>a</sup> *Centro Rosarista de Salud Mental, CeRSaMe Escuela de Medicina y Ciencias de la Salud, EMCS Universidad del Rosario. Clínica Nuestra Señora de la Paz., Calle 128b # 60-57. Torre 3, apartamento 1403, Bogotá, 111121, Colombia*  
<sup>b</sup> *Clínica Nuestra Señora de la Paz. Bogotá, Colombia*  
<sup>c</sup> *Centro Rosarista de Salud Mental – CeRSaMe Escuela de Medicina y Ciencias de la Salud – EMCS Universidad del Rosario. Clínica Nuestra Señora de la Paz. Bogotá, Colombia*

\* Corresponding author.

E-mail addresses: [mauricio.rendon@urosario.edu.co](mailto:mauricio.rendon@urosario.edu.co) (E. Rendon-Quintero), [asesormetodologico@cclapaz.com.co](mailto:asesormetodologico@cclapaz.com.co) (K. Ortiz), [direccioncientifica@cclapaz.com.co](mailto:direccioncientifica@cclapaz.com.co) (A. Vallejo Silva).