LETTER TO EDITOR

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TACKLING PARKINSON'S DISEASE AMID COVID-19 PANDEMIC: PAKISTAN'S PERSPECTIVE

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As the COVID-19 pandemic unfolds, the continuity of essential services for other neurodegenerative disorders and similar chronic health problems is a significant concern. Parkinson's disease (PD) is an idiopathic disorder of the extrapyramidal system. As the COVID-19 is still prevalent throughout most of the areas around the globe, it might contribute to a coexisting global burden of PD, as isolation might trigger chronic stress due to absence of physical exercise.

Pakistan reportedly has about 450,000 PD patients afflicted with PD, which accounts for about 219 PD patients per 100,000 individuals (1). There is existing evidence of a potential link between the coronaviruses and PD. Previous studies have also suggested that coronaviruses can stay latent in the leukocytes hence resulting in gradual infections of the central nervous system. To support the hypothesis, CSF of the PD patients was tested and came positive for anti-coronavirus antibodies. SARS-CoV-2 can easily link with CNS through hematogenous or axonal path of olfactory neuro-epithelium, leading to hyposmic and anosmic conditions (2).

Reports indicate that SARS-CoV-2 can reach brain cells, adversely affecting the symptomatology of PD patients (3). A higher proportion of Parkinson's patients experienced new or deteriorating motor (63%) and non-motor (75%) symptoms during the COVID-19 pandemic (4). If not diagnosed with COVID-19, PD patients reported disrupted medical care, limited exercise, and social activities, and in turn, worsened PD motor and non-motor symptoms. Patients who experienced these interruptions or who underwent self-isolation reported worsening of Parkinson's symptoms. Regular physical activity is important as vigorous fitness can reduce the worsening of PD symptoms and related tension, so encouraging domestic workouts such as online Pilates or dance lessons can be very useful in preserving their optimal well-being throughout the pandemic.

In primary and secondary health care systems of Pakistan, elective activities were delayed due to age-related measures. This created a hindrance for PD patients in accessing vital medications that can limit their aggravated symptoms. Even though telemedicine services were introduced, it was either not accessible due to compromised financial support or poor internet connectivity (5).

Reportedly, as PD escalates during the sixth or seventh decade of life, it can also be correlated with enhanced symptoms of COVID-19. Along with PD, multiple comorbidities are commonly associated leading to an overall immunocompromised patient, who is more prone to show higher severity of COVID-19 symptoms such as low oxygen saturation and pneumonia. In support, studies suggest that the longer the PD duration, the risk of pneumonia increases and so does the need for management through supplemental oxygen, or hospitalization (4).

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In conclusion, as COVID-19 disrupted the ideal rest to activity ratio of patients with PD, it consequently increases reported cases of worsening motor and non-motor symptoms. Furthermore, timely processing of patients' complaints and implementation of preventative measures is much needed. Statistically, the number of individuals living with PD will rise as the pandemic extends, leading to higher financial and social costs.

Keywords: Parkinson's disease, COVID-19, pandemic, Pakistan

Authors' contributions

SA conceived the idea of letter and supervised it. SZ & SA participated in its design and wrote the manuscript. AM participated in revision of manuscript. All authors read and approved of the final manuscript.

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