Long-Covid Symptoms Improved after MDMA and Psilocybin Therapy

David S. Jevotovsky, MD, MBA,¹ Harman Chopra, MD,² Tim Furnish, MD,³ Monica Verduzco-Gutierrez, MD,⁴ Joel Castellanos, MD³ ¹New York University Grossman School of Medicine ³University of California San Diego Health ²Johns Hopkins School of Medicine ⁴University of Texas San Antonio Health

CASE HISTORY

A 44-year-old previously healthy, fullyvaccinated female PhD scientist (180 lb) with a history of migraine headaches developed Long-COVID symptoms after contracting SARS-CoV-2. The patient's symptoms of fatigue, depression, anxiety, joint pain, headaches, and cognitive impairment were present for 3 months and prevented her from working. Conservative measures, including graded return to activity and medications for symptomatic management, were not fully effective. Trialed medications included antihistamines for insomnia, sumatriptan 85 mg and naproxen sodium 500 mg as needed for headaches. The patient denied any recreational drug use. She experienced mild improvements with slow walks, intermittent fasting, and meditation however, effects were limited to the duration of exercise.





TREATMENT

Awaiting her Long-COVID clinic appointment, she decided to try psychedelics as a treatment. The first guided-dosing session was with 1 gram of dried whole golden teacher psilocybin cubensis mushrooms, and a second session 24 days later included a single dose of MDMA 125 mg followed by 2 grams of the same previously-ingested psilocybin mushrooms prepared in a tea every 1 hour following for 2 doses. The patient reported these psychedelics provided significant symptomatic relief (>80%), allowing her to return to work.

FOLLOW-UP

After several months of improvement, she experienced a relapse with a non-Covid flu-like illness that responded well to a third dosing session. The patient reports 90% improvement in her overall well-being, compared to her initial presentation.

DISCUSSSION

Long-COVID is a complex condition that can be challenging to manage and treat. Traditional treatment options may not be effective for all individuals, and there is a need for alternative treatment options. Recent evidence suggests that psychedelics could be an effective treatment option for the mental health sequelae of COVID-19. The mechanism of action of psychedelics in treating Long-COVID symptoms is not known but through serotonin 2a receptor agonism, psychedelics lead to changes in brain connectivity, neuroplasticity, and immune response. To our knowledge, this is the first reported case of psychedelics as treatment for Long-COVID. Further research is needed on efficacy, safety, and mechanism of action.

FUNDING / DISCLOSURES

None Nothing to disclose.

REFERENCES

Argento, E., Christie, D., Mackay, L., Callon, C., & Walsh, Z. (2021). Psychedelic-Assisted Psychotherapy After COVID-19: The Therapeutic Uses of Psilocybin and MDMA for Pandemic-Related Mental Health Problems. Front Psychiatry, 12, 716593. doi:10.3389/fpsyt.2021.716593

Gattuso, J. J., Perkins, D., Ruffell, S., Lawrence, A. J., Hoyer, D., Jacobson, L. H., . . . Sarris, J. (2023). Default Mode Network Modulation by Psychedelics: A Systematic Review. The international journal of neuropsychopharmacology, 26(3), 155-188. doi:10.1093/ijnp/pyac074

NYULangone Health

Department of Rehabilitation Medicine Rusk Rehabilitation