

Olfactory and gustatory hallucinations in new onset psychosis due to COVID-19: an atypical presentation

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Background

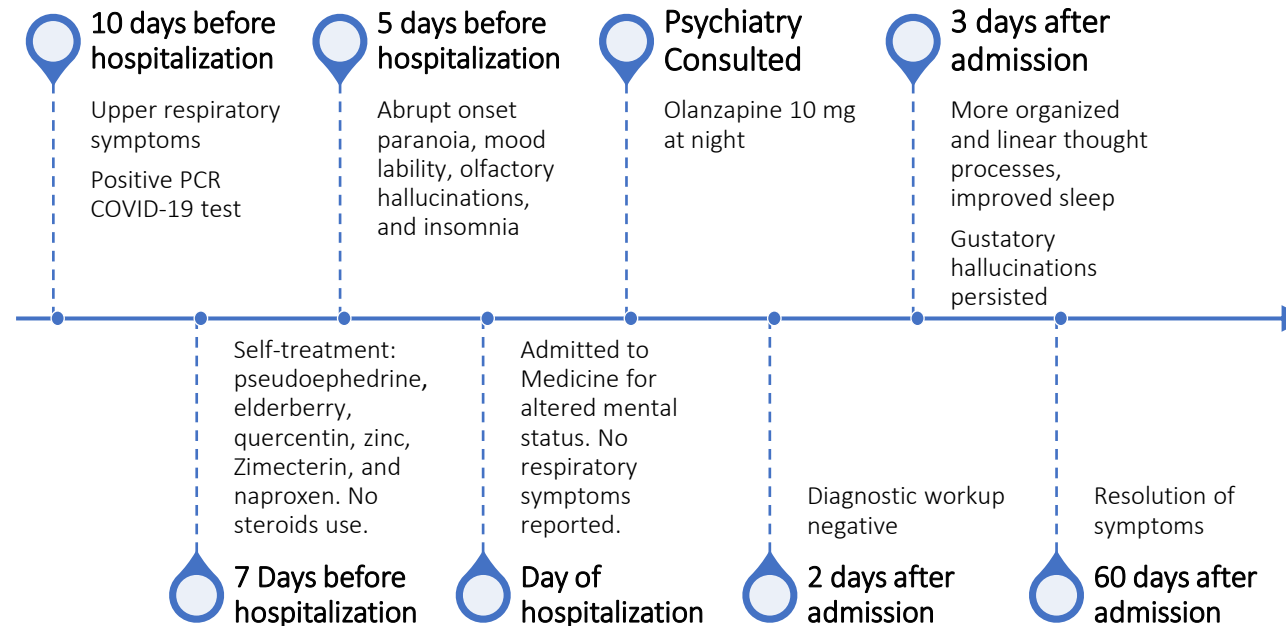
- The novel coronavirus (COVID-19) pandemic has caused detrimental effects on mental health worldwide, including an increase in incidence and relative risk of neurologic and psychiatric diagnosis.
- Neuropsychiatric manifestations of COVID-19 remain poorly understood. Cases of COVID-19 psychosis share common features: agitation, insomnia, paranoia, disorganized thinking, and auditory hallucinations.¹

Significance

We present the first documented patient with new onset psychosis experiencing both gustatory and olfactory hallucinations, in contrast to anosmia and ageusia, which are commonly observed in COVID-19 infection.²

Case Report

A 35-year-old female with recent COVID-19 infection presented to the ED with altered mental status.



Past medical history: Unspecified anxiety disorder with remote benzodiazepine use.

Family History: No psychiatric illnesses.

Mental status exam: Disorganized behavior, dysphoria, circumstantiality, olfactory and gustatory hallucinations related to helium gas, paranoia, slowed concentration, and mild short term memory impairment. No signs of delirium appreciated.

Other symptoms: periods of mutism, verbigeration, facial grimacing, migratory paresthesia, and urinary incontinence

Discussion

Potential pathophysiologic mechanisms related to COVID-19 psychosis, such as:

- direct neurotropic viral infection
- cytokine dysregulation
- post-infectious cellular/antibody mediated response¹

Conclusion

COVID-19 infection may be associated with the risk of new-onset psychosis. Further studies involving pathophysiology and management are warranted.

References

1. Ferrando SJ, Klepacz L, Lynch S, et al. (2020). COVID-19 psychosis: a potential new neuropsychiatric condition triggered by novel coronavirus infection and the inflammatory response?
2. Mehraeen E, Behnezhad F, Alinaghi S. Olfactory and gustatory dysfunctions due to the coronavirus disease (COVID-19): a review of current evidence.
3. Taquet M, et al (2021). 6-month neurological and psychiatric outcomes in 236 379 survivors of COVID-19: a retrospective cohort study using electronic health records.