

Between Scylla and Charybdis: A Second Episode of Antiviral-Induced Mania

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Introduction

- Medication-induced mania is a rare and severe side-effect, described with use of antidepressants, stimulants, dopamine agonists, and steroids
- The COVID-19 pandemic led to increased utilization of antiviral medications, with limited description of their neuropsychiatric effects

Purpose

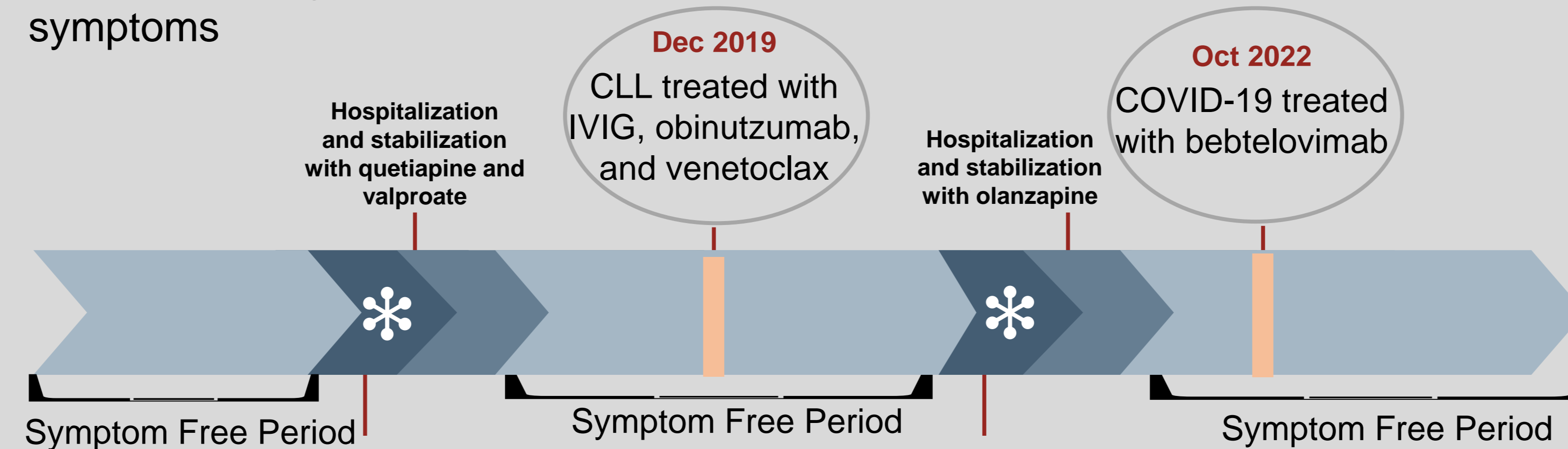
- To report a second lifetime occurrence of antiviral-induced mania

Case

- 61M with no psychiatric history prior to 2009
- In 2009, he developed manic symptoms while being treated with oseltamivir for H1N1
 - Admitted and stabilized with quetiapine and valproate
 - Discontinued after 3 months without return of mania
- He remained free of manic symptoms from 2009 -> 2022
 - He was diagnosed with chronic lymphatic leukemia (CLL) in Dec 2019. Treated with IVIG, obinutuzumab, and venetoclax
 - PET in Jan 2022 showed no residual disease

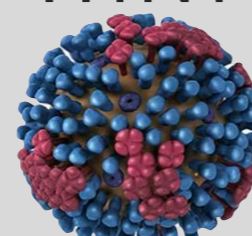
Case (continued)

- In Feb 2022, he was hospitalized with COVID-19 pneumonia and initially treated with remdesivir, given concern of immunocompromised status from CLL treatment
 - On day 5 of treatment, he developed manic symptoms
 - Paxlovid was then added
 - Admitted to psychiatry for 14 days and stabilized with olanzapine 15mg
- In Oct 2022, he contracted COVID-19 again for which he was treated with bebtelovimab (given history of antiviral-induced mania) without development of manic symptoms



2009

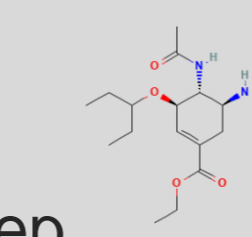
H1N1



Treated with **oseltamivir** (neuraminidase inhibitor)

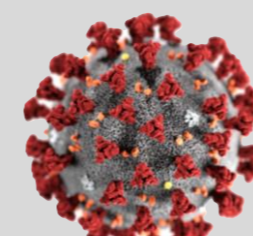
Symptoms:

- Decreased sleep
- Grandiosity
- Hypergraphia
- Irritability
- Disinhibition
- Paranoid delusions



Feb 2022

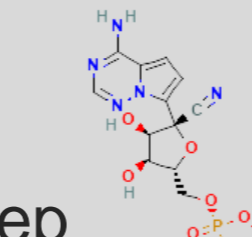
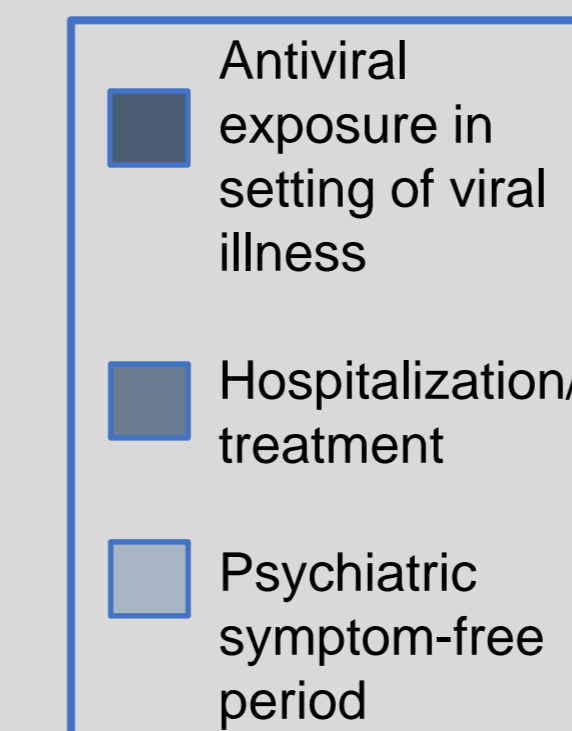
COVID-19



Treated with **remdesivir** (adenosine triphosphaste analog)

Symptoms:

- Decreased sleep
- Excess speech
- Emotional lability
- Hyper-sexuality
- Hyper-religiosity
- Agitation

Discussion

- The patient has two lifetime psychiatric episodes, each in the context of confirmed viral infection and antiviral use. In this recent episode, onset of mania correlated temporally with remdesivir initiation, while Paxlovid was initiated after mania symptom development
- We recognize that sequelae secondary to COVID-19 (and H1N1) infection could also be a potential trigger for this manic episode. However, patient did not develop mania during a later COVID-19 infection in the absence of antiviral treatment
- Regarding CLL, brain MRI during psychiatric hospitalization showed no evidence of leptomeningeal malignancy or other explanation for psychiatric symptoms

Conclusions

- Certain individuals may have a predisposition to antiviral-induced mania (mechanism unknown)
- Discussion of risks, anticipatory guidance, and potential prophylactic treatment of mania may be indicated in cases of essential treatment with antivirals

References

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