



Comorbid SARS-CoV2 and Cotard Syndrome: Is there an association?

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Background

- Respiratory viruses have been associated with various psychiatric manifestations including acute confusion, depression, anxiety, impaired memory, insomnia, mania, and most interestingly a milieu of psychotic symptoms.¹
- While limited data correlating psychosis and SARS-CoV-2 does exist, corresponding treatment guidelines have yet to be published.

Case

- 66-year-old recently unemployed, married, housed Caucasian male without prior psychiatric history and medical comorbidities of DMII, HTN, HLD, BPH, hx stroke, and renal calculi who presented with **increased frequency and intensity of pessimistic outlook, rumination, low self-esteem, self-disparaging comments, excessive guilt, catastrophizing, and delusion of negation.**

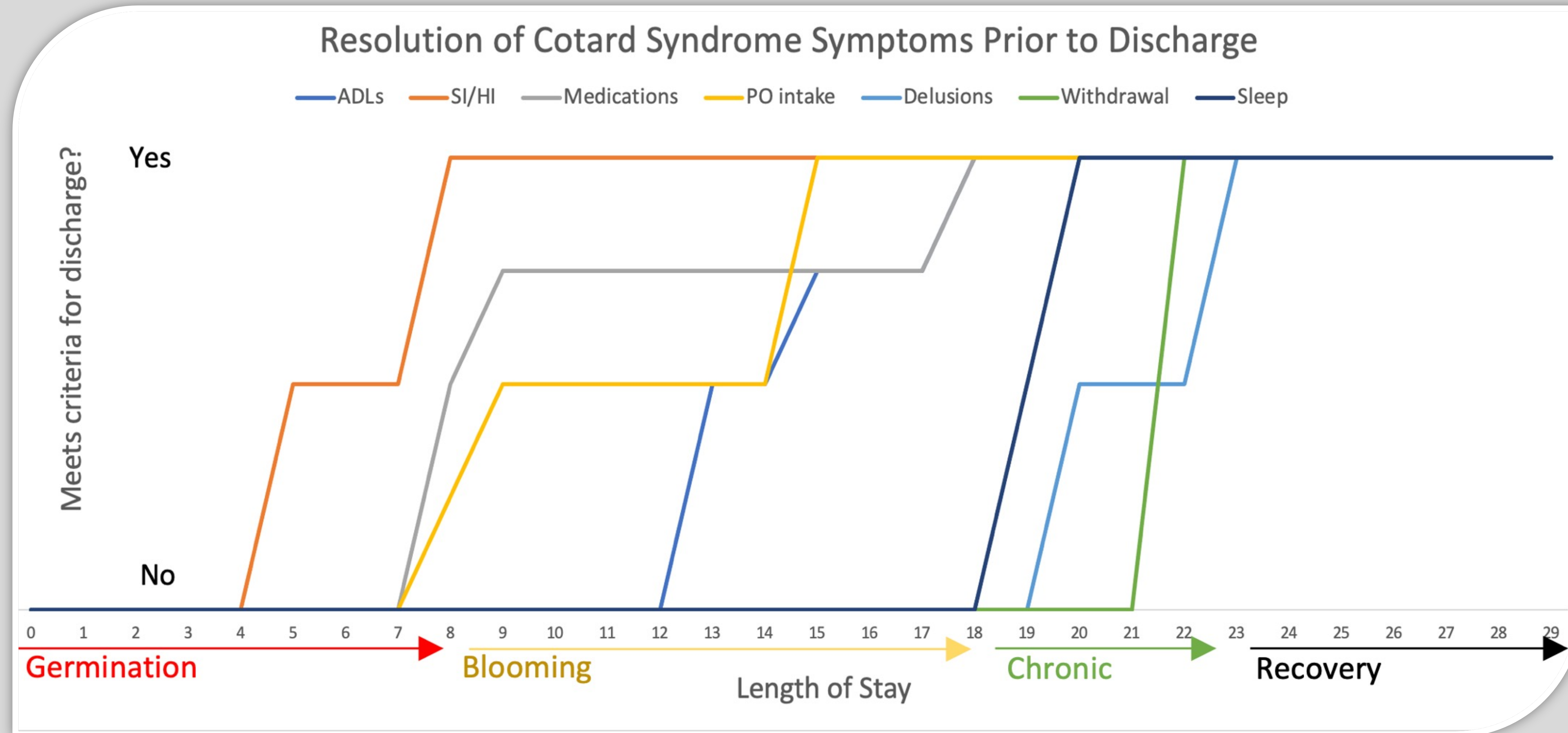
History and ED Workup

- Positive:** depressed mood, nonspecific VH, poor sleep, and refusal to eat/drink. Incidentally, positive SARS-CoV-2 infection.
- Negative:** UDS and CT Head w/o contrast

Collateral

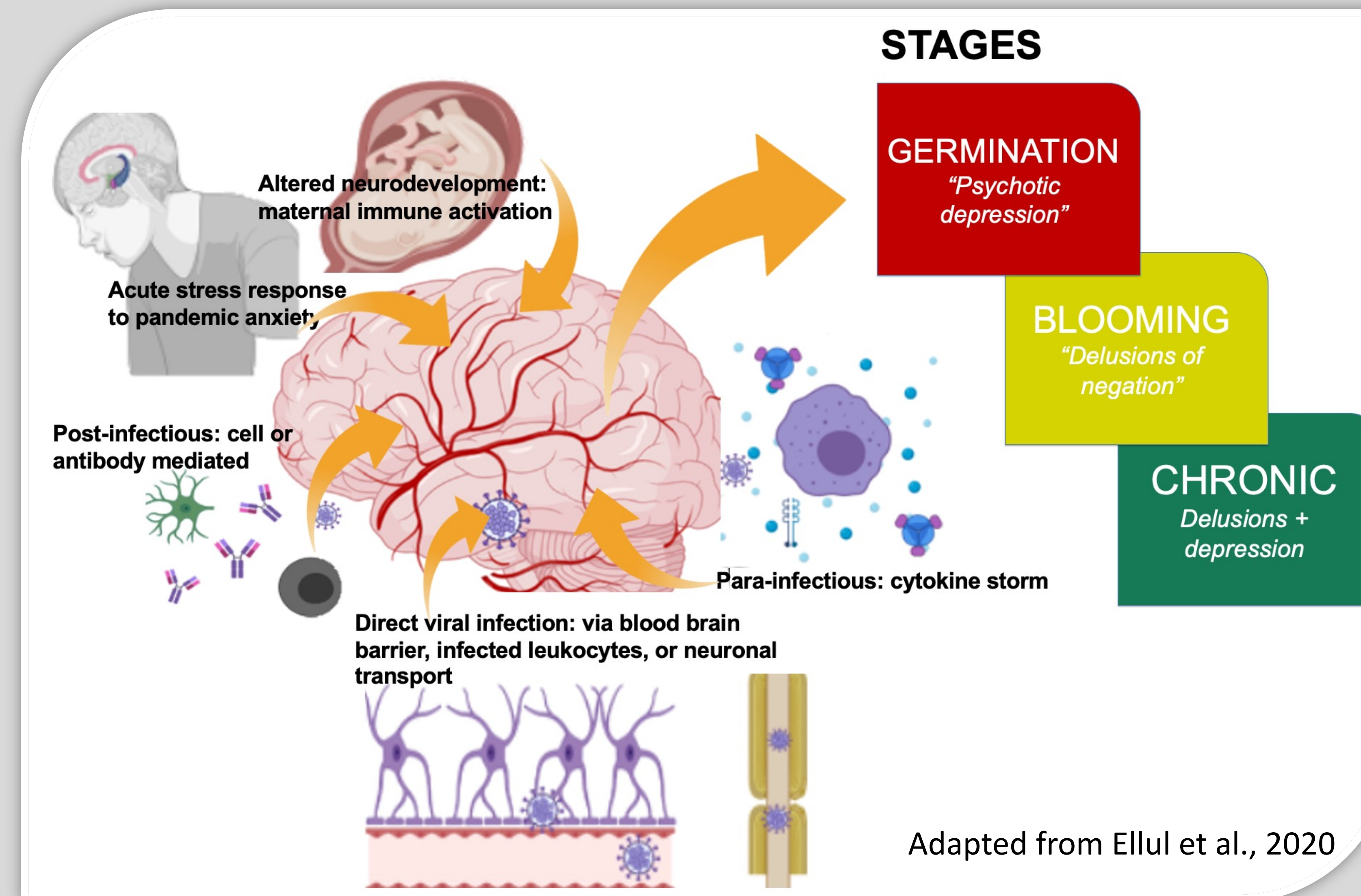
- 4 weeks of **deterioration in IADL/ADLs**
- 3 weeks of **behavior changes** including paranoia, response to internal stimuli, and impaired driving.
- 1 week of **nihilistic thought** and **SI/HI** with intent/plan

Admission Course



Anatomy and Pathophysiology

- Misfiring in the **fusiform gyrus**, which recognizes faces, and in the **amygdala**, which associate emotions to a recognized face, is seen in Capgras syndrome.³
- If this patient sees their own face, they may not see an **association** between the face and their own sense of self. This can result in the patient not believing their own existence as seen in Cotard's syndrome.³
- Cotard's delusion is associated with **multifocal brain atrophy** and **medial frontal lobe disease**.⁴

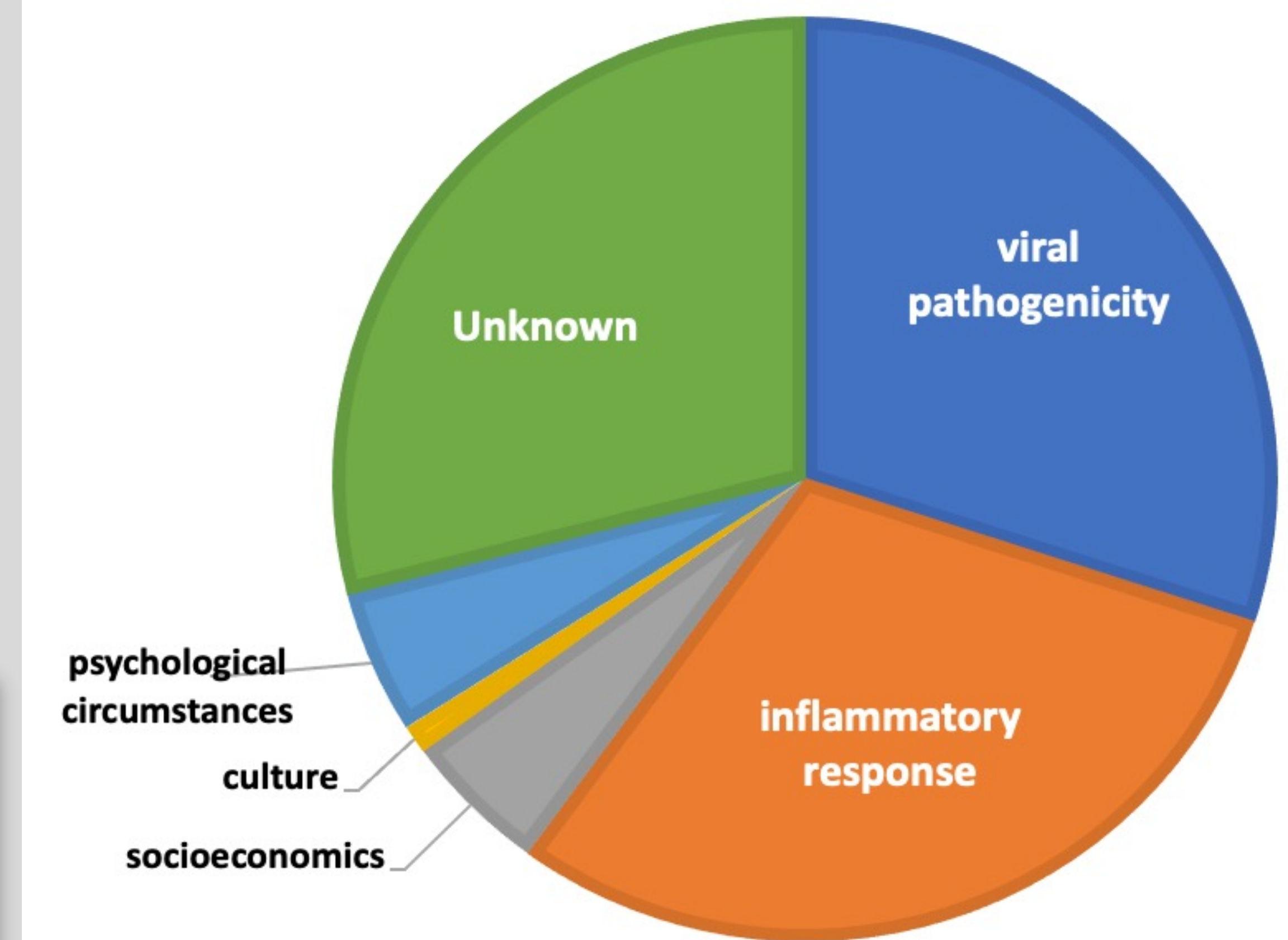


Adapted from Ellul et al., 2020

Discussion

- Despite rapid expansion of knowledge about SARS CoV-2 infection and its neuropsychiatric sequela, **no underlying pathological mechanisms** have yet to be established.²
- Additionally, the effect of **iatrogenic factors** on mental health including isolated wards and personal protective equipment likely contribute. Ongoing research is needed for further clarification.

CONTRIBUTING FACTORS IN OUR CASE²



Conclusion

- Our patient improved on a regimen of **olanzapine and fluoxetine**, which has been previously demonstrated as effective in treating delusions and withdrawal associated with Cotard's syndrome in various stages.⁵
- This case highlights an example of the co-occurrence of these two syndromes and reinforces the **importance of advancing a neuroimmunological understanding of psychiatric pathology.**

Works Cited

¹Rogers et al., 2020; ²Troyer, Kohn, & Hong, 2020; ³Pearn, J. & Gardner-Thorpe, C, 2002.; ⁴Joseph AB, O'Leary DH, 1986.; ⁵Chou, Lin, Lan, & Chan, 2011.; Gramary A, 2004.; Moschopoulos NP, Kaprinis S, 2016.

Disclosures: The authors report no conflict of interest.