

Muddy Waters— Depression, ECT, and Autoimmune Encephalitis Post COVID-19

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Figure 1. Case timeline.

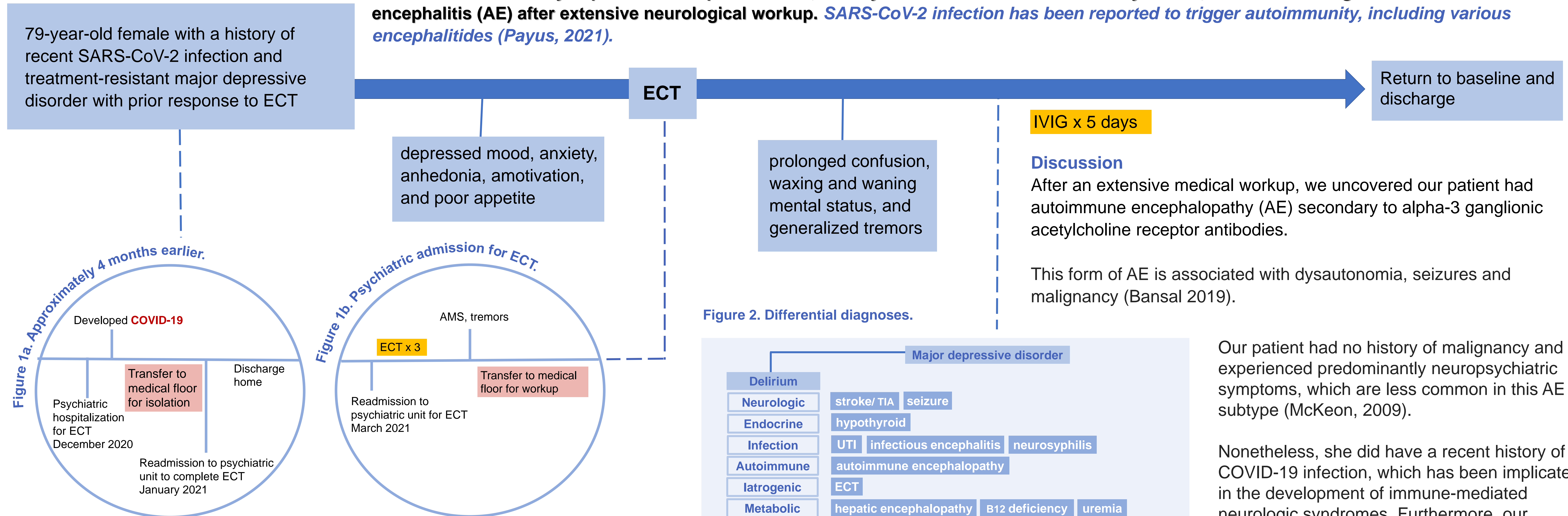
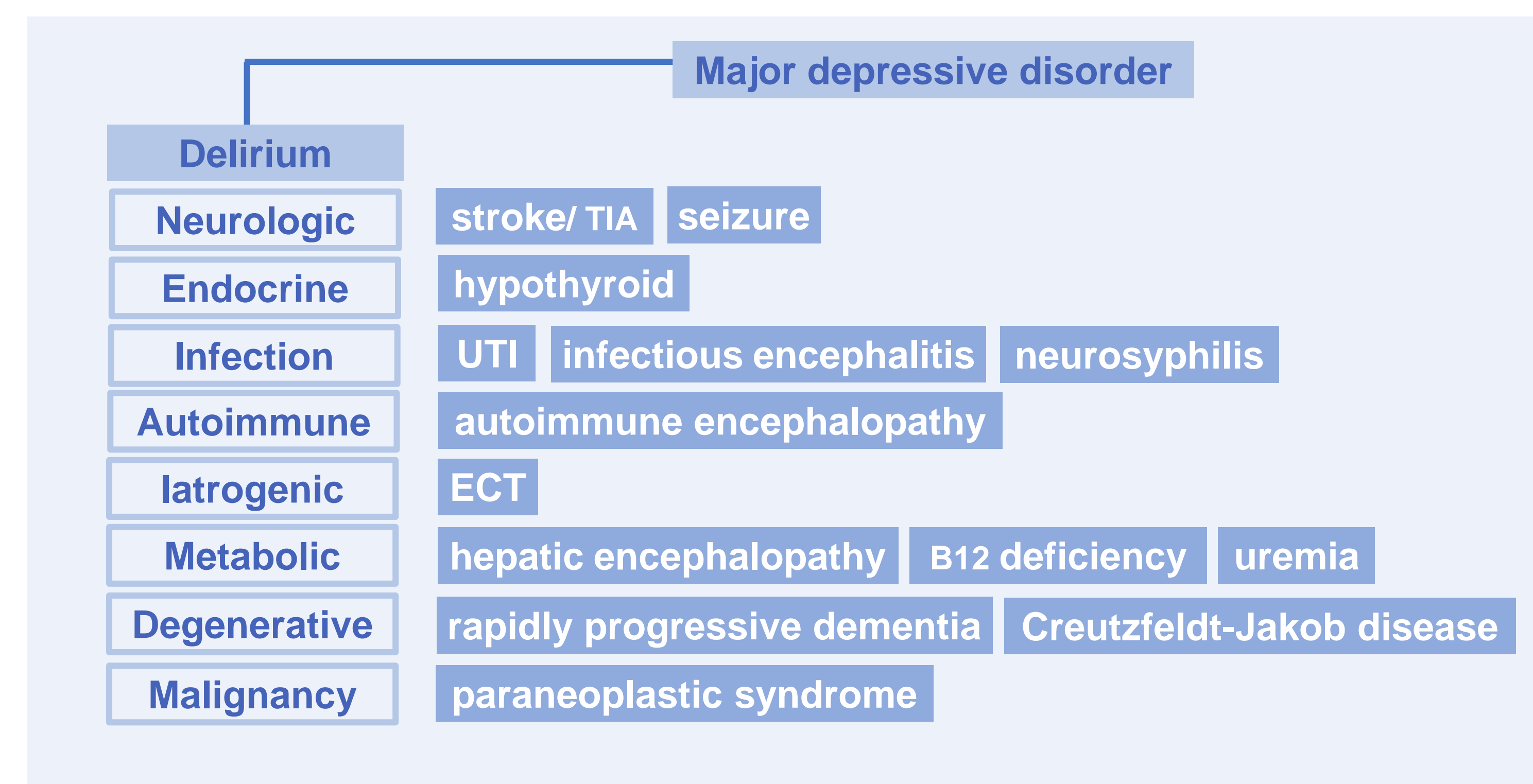


Figure 2. Differential diagnoses.



Our patient had no history of malignancy and experienced predominantly neuropsychiatric symptoms, which are less common in this AE subtype (McKeon, 2009).

Nonetheless, she did have a recent history of COVID-19 infection, which has been implicated in the development of immune-mediated neurologic syndromes. Furthermore, our patient's depressive presentation was predominantly comprised of apathy and neurovegetative symptoms, which could also be informed by her prior COVID-19 infection and AE.

Conclusion

Prior SARS-CoV-2 infection may have played a role in our patient's development of AE. As AE can be a confounding diagnosis for delirium and depression, this case highlights the importance of maintaining a broad differential, even in cases where psychiatric symptoms are predominant.

Table 1. Medical workup.

Test Ordered	Result
CBC	WNL
Urinalysis	Negative for infection
BMP	WNL
TSH and Vit B12	WNL
LFTs and venous ammonia level	WNL
CXR	Incidental 4 mm right upper lobe nodule, plan made for outpatient chest CT
RPR	Negative
MRI	Generalized age-related atrophy with nonspecific mild B/L white matter disease possibly due to chronic small vessel ischemic disease
EEG	excessive slowing, voltage suppressions, periodic lateralized epileptiform discharges, consistent with encephalopathy
CT Head	some effacement concerning for possible cerebral artery dissection
CT Angio Head and Neck	no evidence of dissection, aneurysm, or stenosis
Lumbar puncture	Negative for viral infection, CJD
Paraneoplastic panel, serum	Negative
Voltage-gated potassium serum antibodies	Negative
neuronal AChR ganglionic (alpha-3) serum antibodies	Positive

References

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