ECT Treatment for Catatonia Post Liver Transplant

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Background

Transplant patients are at high risk for neuropsychiatric syndromes post operatively, including delirium and catatonia, due to immunosuppressant medication, toxic or metabolic disturbances, and neurological vulnerability. Among solid organ transplant recipients, the incidence of delirium is estimated at 47% (1), however, the incidence of catatonia is unknown. Delirium and catatonia in this population are associated with morbidity and mortality, and treatment options are limited.

Case

A 41-year-old woman with a diagnosis of anxiety and alcohol use disorder was admitted for a liver transplant for alcohol-related cirrhosis

Quetiapine 25mg and Clonazepam 2mg PRN at home

Medical history:

decompensated liver failure

symptoms of mania thought to be related to hepatic encephalopathy

acute cholecystitis

congenital hearing impairment

Sodium MELD score 28

Consultation-Liaison Psychiatry team (CLP) was consulted for post-transplant delirium with severe agitation

Presented with a range of neuropsychiatric symptoms with no specific etiology determined. An underlying bipolar diathesis was ruled out

Antipsychotics seemed to precipitate stupor

Medical workup included Neurology consultation, neuroimaging, imaging, cultures, labs, EEG, chest Xray, abdominal CT

Psychosis worsened with Lorazepam

Prominent psychiatric symptoms included constant verbigeration, paranoia, grandiosity, and agitation with fluctuating motor symptoms

Catatonia was suspected

After four weeks of fluctuating delirium, the patient presented with catatonia, with a Bush Francis score of 39

Catatonia was refractory to Benzodiazepines and Memantine

Ultimately, she was treated with bitemporal ECT. There was rapid improvement in catatonic symptoms, with resolution after 5 treatments

Remission sustained as an outpatient

Literature

- Limited literature is available to guide treatment for transplant patients with catatonia.
- Only one other case report of ECT in a kidney transplant patient (2)
- Existing data indicate that ECT is safe for medically ill patients with careful assessment of cardiac and neurological function (3)

Special Considerations

Concurrent delirium and catatonia limits treatment options

Neurotoxic medications (immunosuppression), medical complexity

Presumed neurological vulnerability given history of hepatic encephalopathy and alcohol use

Discussion

No lumbar puncture was done

CL psychiatry teams should work to recognize catatonia post-transplant in delirious patients and consider ECT as a safe and effective treatment, especially when there is limited response to and concern about benzodiazepines worsening underlying delirium. Stigma associated with ECT treatment and the perceived invasiveness by the public and medical teams requires clinical, educational, and logistical support by CLP teams. Further research should explore the safety and appropriate clinical threshold for use of ECT in transplant patients.

References

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