Successful resumption of clozapine with immunosuppressants in liver transplantation: a case report and review of literature

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BACKGROUND

Prevalence of hepatitis C virus (HCV) infection is 17% for those with severe psychiatric illness as compared to 1% in the general population (1).

HCV can →
Cirrhosis +/- Hepatocelullar carcinoma →
necessitating liver transplantation.

Limited evidence is available on individuals with psychotic illness and liver transplantations.

Clozapine is for treatment refractory schizophrenia and this suggests a lack of an alternate effective treatment.

Agranulocytosis is a known side effect of clozapine, and can theoretically be an added risk when patients are on myelosuppressive immunosuppressants post-transplantation.

CASE

Ms. A - 67 year old woman with schizoaffective disorder – stable without mood or psychosis episodes for over 10 years. Well supported psychosocially with daughter.

Psychotropics include:
clozapine 50mg nightly,
bupropion 100mgSR daily,
trazodone 25mg nightly.

PMHX: HCV with cirrhosis and repeated encephalopathy, MELD =16 and diabetes mellitus.

- **JAN 2020:** Patient identified and flagged for need for transplant.
- **MAR 2020:** Psychosocial and pre-transplant psychiatric assessment.
- **JAN 2021:** **Liver transplant** and **CL psychiatry** involvement post operatively.
  Prescribed:
  Mycophenolate 540mg BID
  Tacrolimus 4mg BID
  Resumption of psychotropics (clozapine, bupropion, trazodone).
- **FEB 2021:** ANC 2100/microL after initiating immunosuppressant.
- **MAR 2021:** Discharge to rehabilitation with ANC = 2400/microL and total clozapine serum level 274ng/ml – remained stable psychiatrically and medically; and care transferred.

DISCUSSION and REVIEW OF LITERATURE:

There is very limited literature available on solid organ transplant and those with psychotic illness; and even less on those on concurrent clozapine.

Purported stigma and negative attitudes from transplant listing criteria, in certain institutions, towards those with a psychiatric diagnosis, specifically primary psychotic illness, have been called to question (2).

Case series from 12 US centres, reviewed 35 kidney and liver transplants in patients with pre-existing psychotic diagnosis, though none of them treated with clozapine (3).

One case report for renal transplantation described successful continuation of clozapine treatment without agranulocytosis (4).

More evidence is needed to support those on clozapine treatment in receiving solid organ transplantation. Patients with chronic psychiatric illnesses should be able to access treatment equitably.

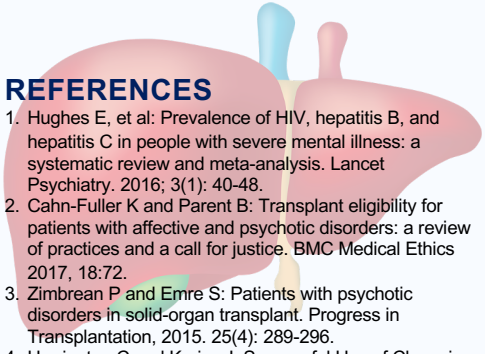
CONCLUSIONS

Concomitant treatment of clozapine and anti-rejection immunosuppressants can be safely used with close monitoring of ANC.

Psychiatrists are well poised to advocate, when appropriate, for patients with psychotic illnesses, including those who require clozapine treatment, to receive solid-organ-transplantation.

Close communication with our medical colleagues can optimize care outcomes.

Further studies are needed to reduce stigma and to identify factors that predict successful transplant outcomes in patients with severe mental illness.



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