

Is Ketamine the Future Clozapine for Depression? A Case Series and Literature Review on Maintenance Ketamine in Treatment-resistant Depression With Suicidal Behavior

ABSTRACT

Ketamine has shown effectiveness as a rapid-acting antidepressant with antisuicidal effects in terms of reduction of suicidal ideation in the short term. However, the evidence for long-term maintenance ketamine therapy for treatment-resistant depression (TRD) and suicidal behavior is limited. This case series (N=13) highlights the role of adjunctive serial maintenance ketamine infusions in restoring functionality in treatment-resistant unipolar and bipolar (mixed) depression with significant suicide risk and multiple comorbidities, including alcohol dependence. Two cases of TRD achieved functional remission with long-term maintenance ketamine treatment. The first case illustrates the potential synergistic interaction between ketamine and lamotrigine to achieve a sustained antidepressant response in the patient for 7 months. The second case may possibly be the longest reported case of maintenance ketamine therapy, with treatment continuing for 5 years to date. Ketamine treatment showed acute effectiveness in another 7 cases, especially in terms of reduction of suicidal ideation, albeit without significant long-term antidepressant effect. Factors that may contribute to lack of effectiveness of serial ketamine include inadequate mood stabilization in TRD in bipolar spectrum diagnoses, concomitant benzodiazepine use, complex comorbidities, and adverse effects such as significant hypertension and severe dissociation. Future systematic controlled studies are warranted to establish the efficacy and safety profile of long-term ketamine as maintenance therapy for TRD with suicidal behavior.