

Ketamine in Major Depressive Episodes with Psychotic Features: A Case Report

PRESENTER:

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BACKGROUND:

Ketamine and esketamine (the s-enantiomer of racemic ketamine) are known NMDA receptor antagonists which have generated interest in the management of treatment-refractory depression. The majority of data on use of ketamine is limited to unipolar major depressive disorder without psychotic features¹. There are few studies of treatment in mood disorders with psychotic features^{2,3} and concerns for psychotomimetic symptoms have resulted in a relative contraindication for treatment with ketamine. In 2016, VA Boston's Neuromodulation service began offering ketamine infusion as an off-label treatment for a patient with treatment-refractory major depressive disorder and active suicidality who would not accept electroconvulsive therapy. After this initial treatment, more patients with treatment refractory depression and suicidality were referred to the Neuromodulation service for ketamine infusion. Shortly after the FDA approval of esketamine in March 2019, the service began offering intranasal esketamine.

METHODS:

Eight patients treated at VA Boston's Neuromodulation Service between 2016-2019 were reviewed for a history of psychotic symptoms and their course post treatment with ketamine or esketamine. Two cases met criteria and were evaluated for psychotic symptoms, depressive symptoms prior to and after treatment. We reviewed patient and clinician reported ratings of depression and psychosis as well as Montgomery And Asberg Depression Rating Scale (MADRS), and Brief Psychiatric Rating Scale (BPRS) scores. Patient outcome was followed up to 52 weeks post treatment.

MADRS scores decreased and no increase in psychotic symptoms were observed in both patients treated with ketamine and esketamine. These cases argue to expand study of the use of ketamine in major depressive episodes with psychotic features.

Table 1. Demographics and Treatment Outcome

	Case 1	Case 2
Age, Gender	59, M	61, M
Diagnosis	Major Depressive Disorder	Schizoaffective Disorder
Prev failed medications	Multiple medication trials, failed ECT	Refused ECT, all psychotropic medications.
Psychotic Features	Paranoia, delusions of surveillance	Somatic delusions, refusing PO
Treatments	8 IV ketamine, 6 intranasal esketamine	7 IV ketamine
Results	MADRS 39→12. No Psychosis reported by patient or observed by clinicians after final esketamine treatment.	MADRS 57→50. BPRS score 71/126 prior with no change after ketamine infusions.
Scales	MADRS, patient report, clinician observations	MADRS, BPRS, clinician observations

CONCLUSION:

In the two cases presented, both patients had severe depressive symptoms with variable presentation of psychotic symptoms. In both patients, MADRS scores decreased with ketamine. Psychotic symptoms were unchanged after treatment when assessed via patient report, clinician observation and BPRS. These cases argue to expand consideration of ketamine administration to patients presenting with major depressive episodes with psychotic features. Further study may indicate whether this population is appropriate if ECT is not tolerated or accepted.

References:

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