



2015

Ketamine, a Brighter Future for Those in Darkness

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VCU

Ketamine, a Brighter Future for Those in Darkness

Matthew Gayhart, Faculty Mentor: Bonnie Boaz

Abstract

Millions of people around the world suffer from Major Depressive Disorder, and many of these people are given drugs to help treat this potentially devastating disease. For many, the first treatment is successful, and if not, certainly the second treatment gives them the relief they so desperately need. Others, however, are not so lucky, people with treatment resistant depression undergo numerous treatments, some of which are more aggressive than others, but still nothing helps alleviate their depression. Recently an older anesthetic, the drug Ketamine, has been making some news as a new depression treatment. This paper will compare Ketamine to the traditional approaches for treating depression, as well as discuss the next steps in making this drug more widely available. By reviewing scholarship on the subject of antidepressants, as well as available research on Ketamine, and by interviewing a patient who recently underwent a Ketamine treatment, this research highlights the positive results of Ketamine while acknowledging the setbacks that still currently exist, and advocates for the use of Ketamine as a treatment for depression.

Ketamine Facts

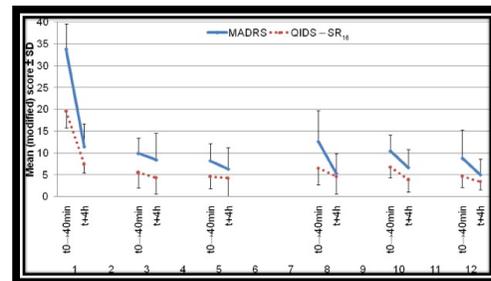
Ketamine was developed in 1962 as an anesthetic, it was used in Vietnam on the battlefield, for it was an anesthetic that did not affect the respiratory system, so only one doctor was needed. Since then, Ketamine has made its way onto the Drug Enforcement Administration's radar as a schedule III non narcotic substance (Sewell, 2007).

The Ketamine treatment involves 6 infusions of a low dosage of Ketamine over the course of two weeks.

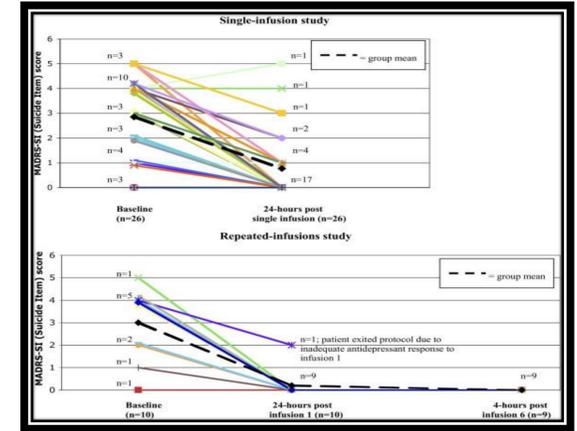
The effects of traditional antidepressants take several weeks to become appreciable. Ketamine's effects are seen usually within 24 hours of the first treatment.

Results/Discussion

Many clinical trials have been performed using Ketamine, however, none of them have included a placebo group. The trials primarily focus on the relation between the Ketamine treatments and the changes in the patient's depression and or suicidality levels. Rot, et.al (2010) did one such study, in which they treated ten patients with six infusions of Ketamine over the course of two weeks. They recorded the patients' depression levels prior to and after each infusion. They found that the average reduction in depression levels was 85% (Rot). They found reductions of that level after the two week treatment was completed, most typical antidepressants take that long or longer to show any effect at all, and even then it is not usually as pronounced as with Ketamine. Dr. Levine (2013), is one of the handful of doctors that currently offers the Ketamine treatment, and he has personally completed the treatment on over 100 patients. He reports that he has not had a single case with any negative side effects, nor any lasting negative reactions. His results also fall in line with previous tests, with a high percentage of patients having a significant decrease in depression levels (Levine). Ketamine has produced positive results for individuals who may never have experienced a successful depression treatment.



"Mean (modified) Montgomery-Asberg Depression Rating Scale (MADRS) and Quick Inventory of Depressive Symptoms, Self-Report Version (QIDS-SR16) scores before (t₀) and 4 hours after (t_{+4h}) six intravenous ketamine infusions in nine patients who responded to a single infusion and subsequently received five additional infusions." (Rot, 2010)



Conclusion

Ketamine has the potential to save thousands of lives every single year, but there are still a few problems standing in the way of it truly being a viable option to treat depression. First, there are not enough doctors or hospitals offering the treatment, as it is highly specialized and is not an approved treatment. Second, the cost of Ketamine can be high; this comes in part from the lack of insurance support. Insurance would be more likely to cover the cost of the treatment if it were an FDA approved treatment for depression. However, regardless of these shortfalls hindering the widespread use of Ketamine, the drug is out there and, while there may be a waiting list and an extremely large price tag, relief can be reached by many. With public support, Ketamine can be seen as the life saving drug that it has the potential to be, but the first step towards change is knowledge. More trials and more research must be conducted on the safety and efficacy of Ketamine, but that should not stop it from saving people, people who have no where else to turn.

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Further Information

To keep up to date with current Ketamine news visit: <http://ketamineadvocacynetwork.org/>

Acknowledgements

VCU UROP - the amazing opportunity
 Bonnie Boaz - Mentoring
 Dr. Levine - for making all of this possible



Steven P. Levine, M.D.
 One of the few doctors in the country to offer Ketamine infusions. He is based in Princeton, NJ and is willing to help anyone who is suffering.