

Concerns on Using Ketamine Therapy as a Treatment for Major Depressive Disorder.

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The use of ketamine therapy to cure those with major depressive disorder is currently a controversial topic in the medical field. Ketamine is a pain reliever, it acts as a noncompetitive inhibitor of N-methyl-D-aspartic (NMDA) receptors, and it is typically used as anesthesia. Ketamine is a controlled and addictive substance that is commonly abused, and if it becomes more accessible it could potentially pose a risk for future addiction development. Here, I performed an in-depth literature review on the side effects and warnings for ketamine usage and compared those with some of the reported benefits. The goal of this research was to increase the understanding of the mechanisms for ketamine's negative effects on mental states, and to increase consumer awareness on the benefits and disadvantages of choosing ketamine to treat depression. In my research I found that 48-61% of people using SPRAVATO® brand ketamine treatment experienced sedation, 61-84% experienced derealization, depersonalization, and saw hallucinations. It is also seen after five years of use at similar dosage has caused a loss of gray matter in the brain, as well as decreasing the integrity of the white matter. This causes instability in the brain's processes, such as learning and processing stimuli. The next most common side effects in patients under the age of 24 included nausea and vomiting, feeling intoxicated, vertigo, anxiety, and suicidal thoughts. In conclusion, a safer alternative to ketamine would be an antidepressant that improves the natural reuptake of neurotransmitters in the brain, rather than introducing a controlled substance.