## NEUROPSYCHIATRY AND SLEEP MEDICINE

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## Insomnia END's in suicide while ketamine restores life: Intramuscular ketamine as the potent antidepressant and antisuicidal agent

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**Background:** Insomnia and psychiatric disorders are comorbid and mutually amplify the risk of premature death, often by suicide. Insomnia is a core feature of depression. About 75% who die of suicide have Major Depressive Disorder (MDD). MDD affects 16% of the world's population at some point in their lives.Most patients require several weeks if not months to respond to the current antidepressant agents and some may never attain and sustain remission. This lag leaves a window wherein some patients may act on their suicidal impulses. Ketamine, a non-competitive NMDA (N-Methyl-D-Aspartate)receptor antagonist with its rapid time course and its effects on Brain-Derived Neurotrophic Factor (BDNF) and Sleep Slow Wave Activity(SWA) supports the neuroplastic processes making it potential antisuicidal and antidepressant agent, a life-saving measure for patients with imminent risk of suicide. We report five cases, which were treatment-resistant with significant suicidality who showed profound improvement with a single sub-anesthetic dose of 0.25mg/kg bodyweight intramuscular (IM) ketamine. Light is thrown over ketamine's mechanism of action and its superiority over current antidepressant agents and Electro Convulsive Therapy(ECT).

**Methods:** The five cases were admitted to Katuri Medical College and Hospitals for treatment-resistant depression. Their depression was rated on HAM-D (Hamilton Rating Scale for Depression) 1 hour before and 4 hours after the administration of IM ketamine given at the dose of 0.25mg/kg body weight.

**Conclusion:** In all the five cases, the core depressive symptoms including suicidality were relieved within four hours of administration of IM ketamine at a sub-anesthetic dose of 0.25mg/kg body weight. The improvement was sustained with a second similar dose of IM ketamine, given on the fourth day after the first one. No adverse effects were noted during or after the ketamine administration. It is evident from these cases that Ketamine is unique in its mechanism of action for its rapid antidepressant and antisuicidal properties.

## **Biography**

Monica Chella is a Specialist in the Science of NeuroPsychiatry. She received her MD in psychiatry in july 2017 from NTR University of Health Sciences, AP, India. She stood zone first and state third in the post graduate university examinations. She has a good experience in treating neuropsychiatric conditions. She has hands on experience in treating suicidal depressive patients with IM Ketamine according to protocol. Previously presented on ketamine in global conference.

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