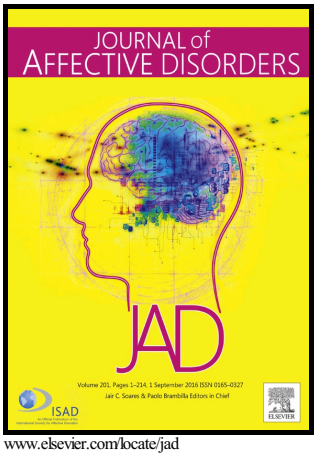

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Blood Pressure Safety of Subanesthetic Ketamine for Depression: A Report on 684 Infusions

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Abstract

Background:

The dissociative anesthetic agent ketamine is increasingly being utilized to treat depression, despite not having FDA (Food and Drug Administration) approval for this indication. There are many questions about the potential risks of this treatment and hence the proper setting and degree of monitoring required to ensure patient safety. There is limited data about the cardiovascular safety of ketamine when administered at subanesthetic doses to treat depression.

Methods:

66 patients in the Department of Psychiatry at Emory University received a total of 684 ketamine infusions between 2014 and 2016. Ketamine was dosed at 0.5mg/kg body weight and infused over 40 minutes. Blood pressure was measured every 10 minutes during the infusions and every 15 minutes thereafter.

Results:

Mean age of the patients was 56.7 years, 87.9% had unipolar depression and 36.1% had essential hypertension. No infusions were discontinued due to instability of vital signs, adverse physiological consequences or acute psychotomimetic effects. The biggest increases in blood pressure were measured at 30 minutes (systolic 3.28 mmHg, diastolic 3.17 mmHg). Hypertensive patients had higher blood pressure peaks during the infusions. Blood pressures returned to baseline during post-infusion monitoring. There was no development of tolerance to the blood pressure elevating effects of ketamine between the first and sixth infusions.