Intravenous Ketamine: Improving Symptoms of Anhedonia

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**Introduction**

- Anhedonia is defined as the decreased subjective experience of pleasure or decreased anticipation of pleasure
- Anhedonia is a cardinal symptom of major depressive disorder (MDD) & bipolar disorder (BD)
- Anhedonia is a principal mediator of patient-reported outcomes including, but not limited to:
  - Quality of Life
  - Wellbeing
  - Psychosocial Function
- Amongst adults with remitted MDD, anhedonia has been reported to predispose and portend relapse & recurrence
- Moreover, adults with treatment-resistant depression (TRD) endorsing symptoms of anhedonia are often difficult to treat

**Methods**

- This retrospective, post-hoc analysis included 203 (\(x = 45 \pm 14.6\) years of age) patients (\(\geq 18\)) receiving four infusions of intravenous (IV) ketamine at the Canadian Rapid Treatment Center of Excellence (CRTCE).
- The primary outcome measure: change in anhedonia severity, as measured by the Snaith–Hamilton Pleasure Scale (SHAPS).
- Secondary measures sought to determine if improvement on the SHAPS mediated the effect of repeated IV ketamine infusions on symptoms of depression and suicidal ideations, as measured by the Quick Inventory for Depression Symptomatology-Self Report 16-Item (QIDS-SR16) & anxiety, as measured using the Generalized Anxiety Disorder-7 (GAD-7).

**Results & Conclusions**

- IV ketamine infusion was associated with significant improvements in anhedonia
- Anhedonia was a significant mediator of improvements in depression, suicidality, & anxiety.
- Overall improvement in anhedonia accounted for 20% of the variance observed in depression severity scores.
- IV ketamine infusions effectively improved measures of anhedonia in this large, community-based sample of adults with TRD.
- Improvements in anhedonia was noted to partially mediate the significant improvement in depressive symptoms, suicidality, and anxiety.