A RAPID SURVEY OF OUTCOMES AMONGST PATIENTS WITH MAJOR DEPRESSIVE DISORDER WHO RECEIVED A SERIES OF SIX LOW-DOSE KETAMINE INFUSIONS OVER THREE-WEEKS AT KETAMINE CLINICS OF SOUTH AFRICA, UMHLANGA BRANCH.

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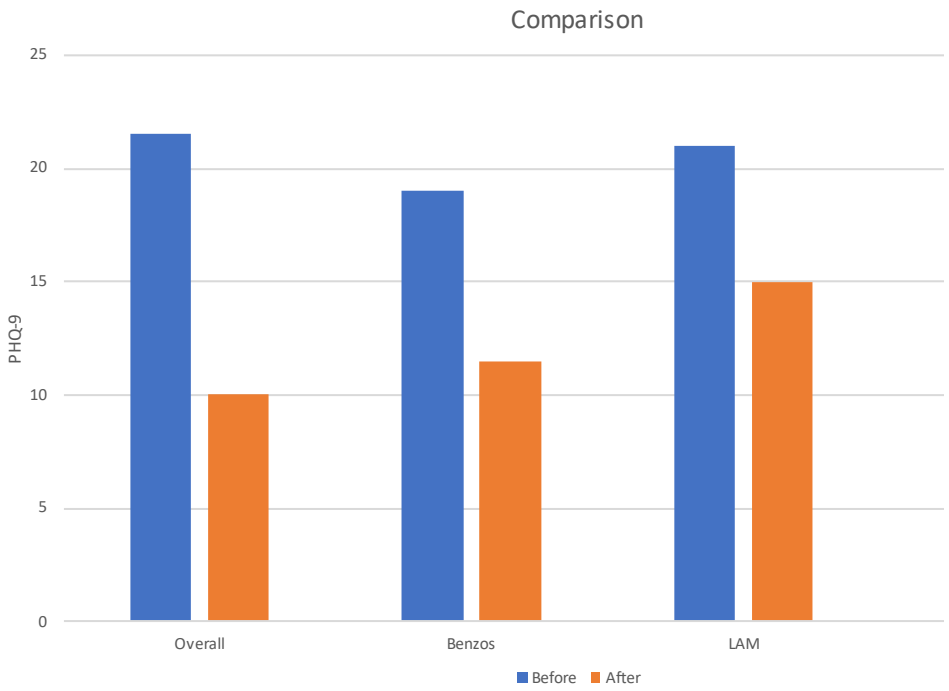
1. The study group included 63-patients with MDD (35-male and 28-female)
2. Ages ranged from late teens to mid-sixties, with the majority of patients between 30-50 years old (36-patients)
3. Overall, after 6-ketamine infusions the average PHQ-9 score (depression rating) reduced from 21.5/27 to 10/27, a reduction of **53%**.
4. 26 patients were taking benzodiazepines at the time of their ketamine infusions. In this group, PHQ-9 scores reduced from an average of 19/27 to 11.5/27, a reduction of **39%**.
5. 6 patients were taking lamotrigine at the time of their ketamine infusions. In this group, PHQ-9 scores reduced from an average of 21/27 to 15/27, a reduction of **28%**.



DISCUSSION

Notwithstanding small sample sizes, limitations, and potentially confounding variables, these findings are consistent with a systematic review published by Oxford University Press in July 2021 (Jolien K.E. Veraart *et al*), which concluded that:

"Current literature shows that bendoziazepines and probably lamotrigine reduce ketamine's treatment outcome, which should be taken into account when considering ketamine treatment."

At KCSA, we have been aware of this effect (loosely referred to as 'GABA / Glutamate conflict') and have noticed a fairly marked reduction in ketamine's efficacy in some patients concurrently taking, in particular, Clonazepam (Rivotril).

It is worth noting that concurrent use of benzodiazepines and / or lamotrigine does not contraindicate use of ketamine, and several patients taking these drugs have still shown benefit after ketamine infusions.

Owing to lamotrigine's long half-life (23-37-hours), and the half-life of certain benzodiazepines exceeding 24-hours, weaning can be problematic. Such decisions are taken on a case-by-case basis and in consultation with referring psychiatrists.

Pharmacogenomic testing could provide valuable insights in this setting.

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