Does Childhood Trauma Impact Outcomes in Adults Receiving Ketamine for Depression?

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BACKGROUND

Childhood trauma is associated with inferior treatment response to conventional antidepressants. This relationship has not been extensively explored with infusion ketamine therapy.

STUDY AIM

To compare antidepressant effects of repeated IV ketamine in adults with TRD with histories of self-reported childhood trauma who sought treatment at an outpatient ketamine clinic.

METHODS

Sample:
Seventy-three adults received at least 4 infusions of intravenous ketamine (0.5-1.0 mg/kg over 40 minutes) on a twice-weekly or once-weekly basis at a private outpatient clinic.

Measures:
The **QIDS-SR** was used to assess depression severity at immediately prior to each infusion for a total of 4 observations.

The **Childhood Trauma Questionnaire** (**CTQ**) was administered at pre-treatment to assess severity of childhood trauma, yielding a total trauma score (TT) and subscale scores for childhood history of physical neglect (PN) physical abuse (PA) emotional neglect (EN) emotional abuse (EA) and sexual abuse (SA).

Cut-off scores between mild, moderate and severe physical, sexual, emotional abuse, physical neglect, and emotional neglect (8, 6, 9, 8, 10, respectively) have been previously established. These cut-off scores were used to devise dichotomous categories (i.e. none-to-minimal, mild-to-severe) for analyses.

Data Analytic Plan
Repeated measures **General Linear Models** tested effects of childhood trauma on QIDS-SR scores.

Fisher Exact Tests compared response (≥50% reduction from baseline QIDS-SR score) and remission (QIDS-SR ≤5) rates between patients reporting scores above and below established cut points for PN, PA, EN, EA and SA.

KEY REFERENCES

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RESULTS

Fig 1

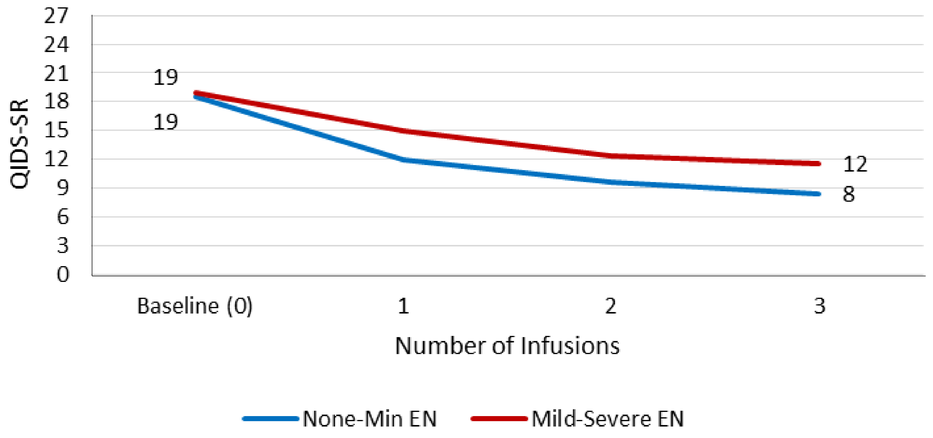

Fig 2

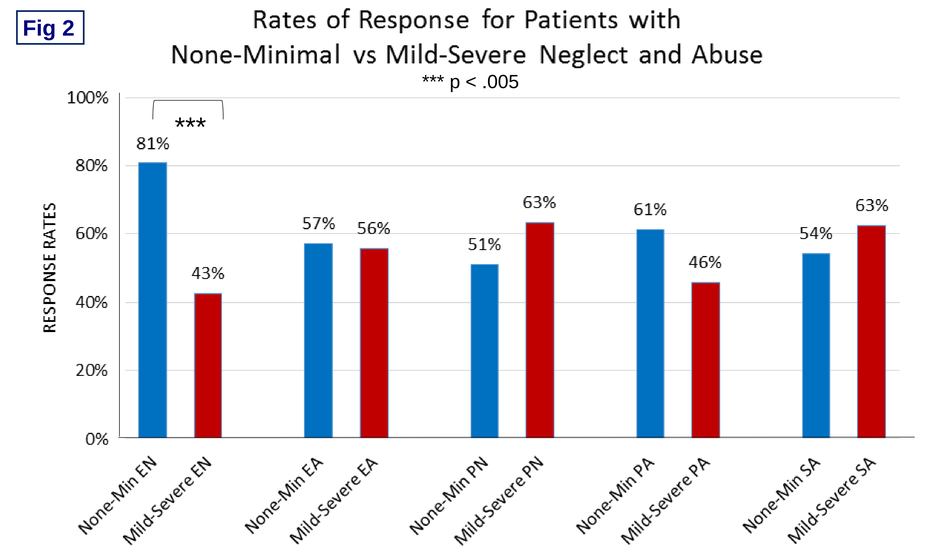

Fig 3

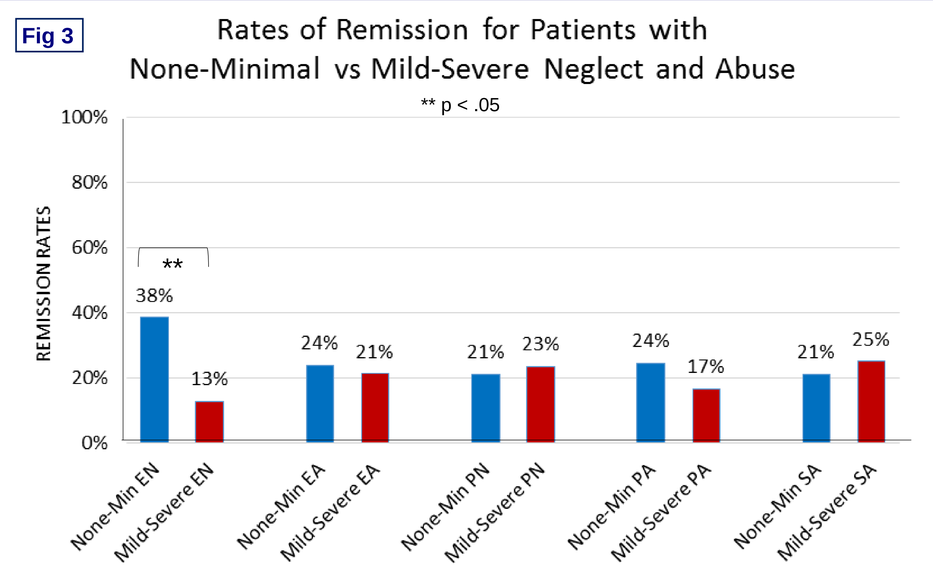

Table 1. Patient Demographics & Clinical Data

	N	%
Female	**42**	**58**
Mean Age (SD)	**41.9**	**(14.9)**
Comorbid Pain Disorder	**8**	**11**
Comorbid Anxiety Disorder	**41**	**56**
Comorbid PTSD	**7**	**10**
Previous ECT Treatment	**11**	**15**
Average Number of Acute Tx Infusions (SD)	**5.6**	**(0.7)**

Descriptive data on the study sample are provided in Table 1. Ketamine significantly reduced QIDS-SR scores (Mean QIDS score change=8.4, SD=5.9, F(2.41, 168.8)=110.41 p<.0001); 56% of patients were ketamine responders, and 22% were ketamine remitters.

Total trauma scores did not associate with outcomes. There was a main effect of emotional abuse (EA; F(1,69)=4.14, p=.046) and emotional neglect (EN; F(1,69)=4.61, p=.035) due to higher QIDS-SR scores throughout treatment for the mild-severe EA and mild-severe EN groups.

Analyses also showed an emotional neglect (EN) by infusion interaction (F(2.45,168.99)=3.33, p=.029, indicating a weaker antidepressant effect in the Mild-Severe Emotional Neglect group than the None-Minimum EN group (Fig 1).

Additionally, Mild-Severe EN was associated with lower response (Mild-Severe EN=43% vs None-Min EN=81%, p=0.003) and remission rates (Mild-Severe EN=13% vs None-Min EN=38%, p=0.017) (Fig 2 & Fig 3).

Gender and age did not impact outcomes.

DISCUSSION

- Emotional abuse and neglect are associated with greater depression severity throughout treatment
- Ketamine improved depression irrespective of childhood trauma severity, although patients with a self-reported history of emotional neglect benefitted less than patients with minimal or no history of emotional neglect.
- Response and remission rates with high childhood trauma are comparable to conventional antidepressant response rates in patients without childhood trauma, suggesting increased efficacy of ketamine for patients with childhood trauma.
- Future research should address the effects of concurrent treatment and previous treatment history.

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