

Supplementary Material

Article Title: Comparing the Cognitive Effects of Repeated Intravenous Ketamine and Electroconvulsive Therapy in Patients with Treatment-Resistant Depression: A Secondary Analysis of the ELEKT-D Trial

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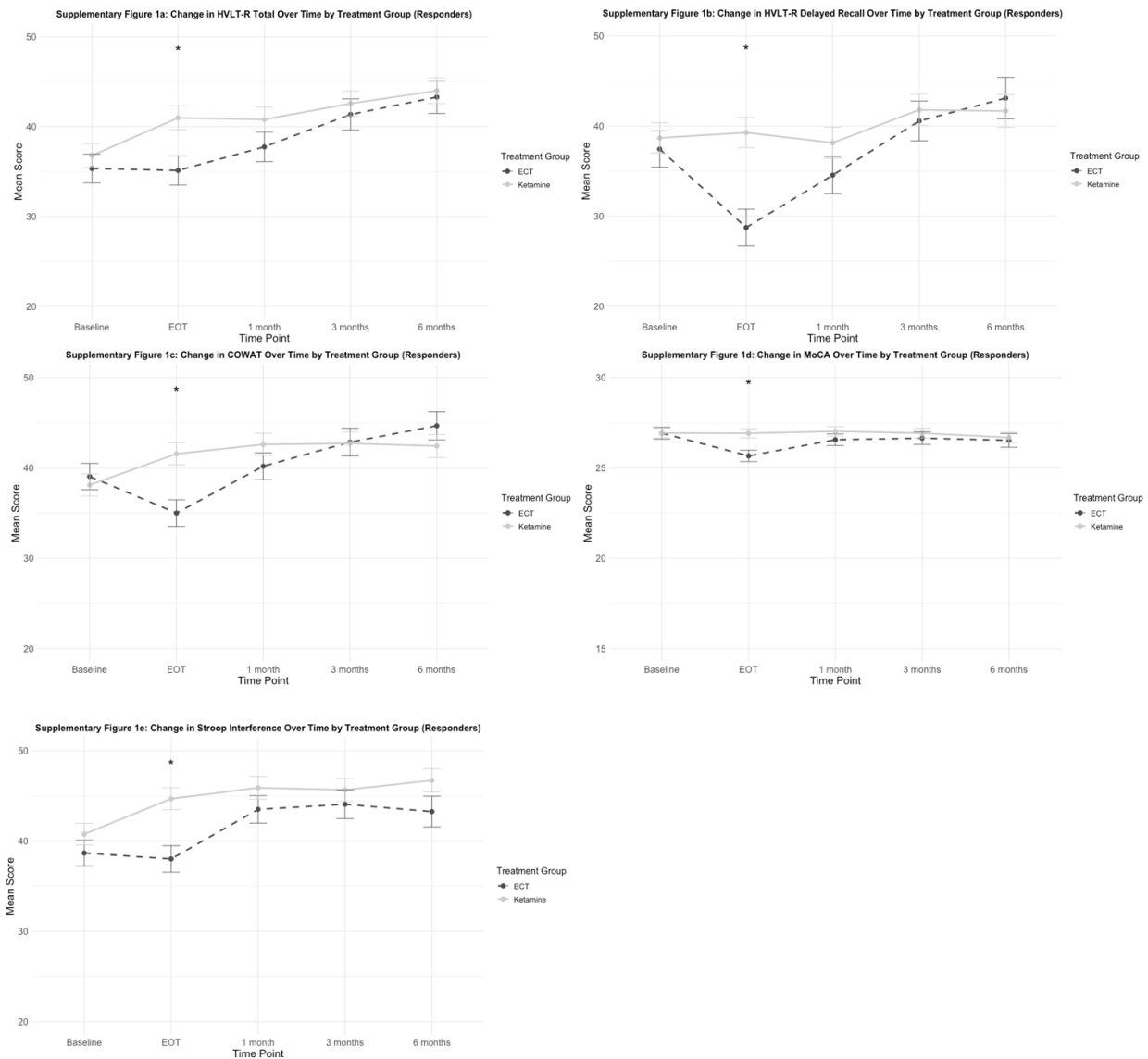
LIST OF SUPPLEMENTARY MATERIAL FOR THE ARTICLE

1. [Figure 1](#) Mixed-Effect Model of Ordinary Least-Square Means Showing Change in Cognitive Task Performance Among Responders From Baseline Through End of Treatment (EOT), and Follow-Up Visits at 1 Month, 3 Months, and 6 Months Following the Completion of Treatment
2. [Table 1](#) Demographic and Clinical Factors of the Sample by Treatment Response

DISCLAIMER

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Supplementary Figure 1^a



Supplementary Figure 1 Caption.

^a Mixed-effect model of ordinary least-square means showing change in cognitive task performance among responders from baseline through end of treatment (EOT), and follow-up visits at 1 month, 3 months, and 6 months following the completion of treatment. Baseline MoCA represents score at screening visit. Analysis included responders to ECT (N=70) and ketamine (N=108), where response was defined as achieving a $\geq 50\%$ reduction in QIDS-SR-16 scores. Figure a shows change in performance on the Controlled Oral Word Association Test (COWAT), Figure b shows change in performance on the Hopkins Verbal Learning Test Revised – delayed recall (HVLt-R delayed recall), Figure c shows change in performance on the Hopkins Verbal Learning Test Revised – Total Score (HVLt-R total), Figure d shows change in performance on the Montreal Cognitive Assessment (MoCA), Figure e shows change in performance on the Stroop Interference Condition (Stroop). For all tasks higher scores indicate better performance.

False discovery rate adjusted significance indicated by * ($p < 0.001$)

Supplementary Table 1.
Demographic and clinical
factors of the sample by
treatment response ^a
(N=365)

Mean / no.
(SD / %)

	Non- Responders (N = 187)	Responders (N = 178)	SMD
Age – years	46.49 (14.55)	45.58 (14.48)	0.063
Education – years	15.46 (2.46)	15.71 (2.71)	0.096
Female – no. (%) ^b	95 (50.8)	96 (53.9)	0.063
Racial Identity – no. (%) ^b			0.32
<i>African American</i>	15 (8.0)	5 (2.8)	
<i>White</i>	154 (82.4)	165 (92.7)	
<i>Other</i>	18 (9.6)	8 (4.5)	
Non- Hispanic Identity – no. (%) ^b	172 (92.0)	162 (91.0)	0.035
BMI	29.70 (7.41)	30.18 (7.85)	0.062
Comorbidities – no. (%)			
<i>GAD</i>	97 (51.9)	103 (57.9)	0.121
<i>PTSD</i>	36 (19.3)	44 (24.7)	0.132
<i>OCD</i>	14 (7.5)	10 (5.6)	0.076
<i>Substance Use</i>	13 (7.0)	9 (5.1)	0.08
Age at onset of first depressive episode - years	19.78 (12.16)	19.02 (10.53)	0.067
Baseline QIDS	18.08 (4.20)	18.05 (4.04)	0.007
Baseline MADRS	32.86 (6.06)	32.11 (6.18)	0.121
Baseline Cognitive Performance			
<i>NAART-35 Standard Score</i>	88.29 (8.92)	89.06 (10.17)	0.08
<i>MoCA Total Score</i>	26.44 (2.67)	26.82 (2.61)	0.142
<i>HVLT-R Delayed Recall</i>	38.72 (14.81)	38.28 (14.48)	0.03
<i>HVLT-R Total Score</i>	35.89 (13.30)	36.45 (12.93)	0.043
<i>COWAT</i>	36.95 (10.27)	38.77 (11.40)	0.167
<i>Stroop Word Reading Total Score</i>	85.19 (17.94)	90.04 (17.72)	0.272
<i>Stroop Color Reading Total Score</i>	62.09 (12.70)	65.08 (12.69)	0.235
<i>Stroop Interference Total Score</i>	37.95 (11.19)	39.82 (11.28)	0.166

Concomitant Psychiatric
Medications – no. (%)

<i>Antidepressants</i>	159 (85.0)	147 (82.6)	0.066
<i>Benzodiazepines</i>	59 (31.6)	55 (30.9)	0.014
<i>Anticonvulsants</i>	48 (25.7)	49 (27.5)	0.042
<i>Antipsychotics</i>	51 (27.3)	54 (30.3)	0.068
<i>Lithium</i>	25 (13.4)	17 (9.6)	0.12

^a Response was considered $\geq 50\%$ improvement on QIDS-SR-16 to either treatment at end of treatment visit.

^b Data is derived from participant self-report.

SMD = Standard Mean Difference