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| **Table S1. Descriptive statistics of subjective memory variables pre- and post ECT** |
|  | N | % |
| **Expectation of ECT effect on memory (N=229)** |  |
| Clearly positive (GSE-My 6-7) | 23 | 10.0% |
| Slightly positive (GSE-My 5) | 27 | 11.8% |
| Neutral (GSE-My 4) | 46 | 20.1% |
| Slightly negative (GSE-My 3) | 118 | 51.5% |
| Clearly negative (GSE-My 1-2) | 15 | 6.6% |
| **Memory impairment (N=277)** |  |
| *Pre-ECT (N=277)* |  |  |
| None (CPRS 0-1) | 104 | 37.5% |
| Transient (CPRS 2-3) | 124 | 44.8% |
| Clinically significant (CPRS 4-6) | 49 | 17.7% |
| *Post-ECT (N=277)* |  |
| None (CPRS 0-1) | 152 | 54.9% |
| Transient (CPRS 2-3) | 83 | 30.0% |
| Clinically significant (CPRS 4-6) | 42 | 15.2% |
| **Memory change between baseline and follow-up (CPRS), (N=277)** |  |
| Improved ≥2 Points | 87 | 31.4% |
| Stable | 145 | 52.3% |
| Worsened ≥2 Points | 45 | 16.2% |
| With definite clinical significance\* | 22 | 7.9% |
| **Evaluation of ECT effect on memory, (N=277)** |  |
| Clearly positive (GSE-My 6-7) | 7 | 2.5% |
| Slightly positive (GSE-My 5) | 14 | 5.1% |
| Neutral (GSE-My 4) | 104 | 37.5% |
| Slightly negative (GSE-My 3) | 88 | 31.8% |
| Clearly negative (GSE-My 1-2) | 64 | 23.1% |
| GSE-My: Global Self-Evaluation Memory |
| CPRS: Comprehensive Psychopathological Rating Scale |
| \*CPRS Worsening ≥2 points and rating ≥4 at follow-up |

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| **Table S2. Relationship between memory change from pre- to post-ECT and retrospective evaluation of ECT's effect on memory** |
|   | Retrospective evaluation (GSE-My) | Total |
| Positive (5-7) | Neutral (4) | Worsened (1-3) |
| Memory change from pre- to post-ECT (CPRS) | Improved ≥2 points | N | 13 | 41 | 33 | 87 |
| % | 4.7% | 14.8% | 11.9% | 31.4% |
| Stable (-1 to +1) | N | 6 | 61 | 78 | 145 |
| % | 2.2% | 22.0% | 28.2% | 52.3% |
| Worsened ≥2 points | N | 2 | 2 | 41 | 45 |
| % | 0.7% | 0.7% | 14.8% | 16.2% |
| Total | N | 21 | 104 | 152 | 277 |
| % | 7.6% | 37.5% | 54.9% | 100.0% |
| % reflect proportion of total sample (N=277) |
| CPRS: Subjective memory according to the Comprehensive Psychopathological Rating Scale, assessment pre- and post ECT |
| GSE-My: Global Self Evaluation-Memory, retrospective evaluation of ECT's effect on memory |

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| **Table S3. Main effects and time interaction effects of variables associated with increasing subjective memory impairment from before to after ECT (N=277)** |
|  | Univariate model |   | Final multivariate model |
|  | Main effect | Time interaction effect |  | Main effect | Time interaction effect |
|  | OR | 95% CI | P | OR\*time | 95% CI | P |  | OR | 95% CI | P | OR\*time | 95% CI | P |
| Female sex | 1.39 | 0.80-2.41 | 0.23 | 1.22 | 0.59-2.52 | 0.58 |  |  |  |  |  |  |  |
| Indication |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Unipolar depression | Reference. | Reference. |  |  |  |  |  |  |  |
| Bipolar depression | 1.07 | 0.50-2.30 | 0.85 | 1.25 | 0.46-3.39 | 0.66 |  |  |  |  |  |  |  |
| All other conditions | 0.43 | 0.17-1.10 | 0.07 | 1.99 | 0.58-6.85 | 0.26 |  |  |  |  |  |  |  |
| Previously treated with ECT | 1.04 | 0.60-1.80 | 0.89 | 1.48 | 0.73-2.99 | 0.28 |  |  |  |  |  |  |  |
| Lithium | 0.99 | 0.47-2.09 | 0.97 | 1.38 | 0.52-3.67 | 0.52 |  |  |  |  |  |  |  |
| Valproate | 0.55 | 0.14-2.21 | 0.40 | 2.53 | 0.43-15.08 | 0.31 |  |  |  |  |  |  |  |
| Lamotrigine | 0.57 | 0.23-1.41 | 0.23 | 2.64 | 0.83-8.38 | 0.10 |  |  |  |  |  |  |  |
| Antipsychotic | 1.17 | 0.70-1.95 | 0.53 | 1.05 | 0.53-2.09 | 0.89 |  |  |  |  |  |  |  |
| Antidepressant | 1.15 | 0.60-2.20 | 0.67 | 0.78 | 0.34-1.81 | 0.57 |  |  |  |  |  |  |  |
| Bifronto/temporal ECT (vs. unilateral) | 0.57 | 0.24-1.34 | 0.19 | 0.94 | 0.30-2.94 | 0.92 |  |  |  |  |  |  |  |
| Brief pulse width (vs. ultrabrief) | 0.80 | 0.43-1.50 | 0.49 | 1.84 | 0.79-4.28 | 0.16 |  |  |  |  |  |  |  |
| Age, per 10 years | 1.05 | 0.90-1.23 | 0.56 | 0.75 | 0.60-0.93 | 0.01 |  | 1.01 | 0.85-1.19 | 0.92 | 0.78 | 0.63-0.97 | 0.03 |
| Duration of follow-up, per 4 weeks | 0.99 | 0.81-1.20 | 0.90 | 0.71 | 0.54-0.94 | 0.02 |  | 0.99 | 0.80-1.23 | 0.95 | 0.68 | 0.51-0.91 | 0.01 |
| Number of ECT sessions, per session | 1.01 | 0.95-1.07 | 0.69 | 1.11 | 1.02-1.20 | 0.02 |  |  |  |  |  |  |  |
| Charge, per 100 mC | 1.12 | 0.87-1.44 | 0.42 | 0.85 | 0.61-1.19 | 0.35 |  |  |  |  |  |  |  |
| CGI severity pre-ECT, 1-7 (lower is better), per point increase | 1.23 | 0.88-1.72 | 0.22 | 0.70 | 0.44-1.10 | 0.11 |  |  |  |  |  |  |  |
| CGI improvement, 1-7 (lower is better), per point increase | 0.86 | 0.63-1.18 | 0.35 | 1.67 | 1.13-2.46 | 0.01 |  |  |  |  |  |  |  |
| More negative expectation of memory effect (GSE-My), per point worsening | 0.73 | 0.56-0.94 | 0.01 | 1.90 | 1.33-2.70 | <0.001 |  | 0.72 | 0.56-0.94 | 0.01 | 1.83 | 1.28-2.61 | <0.001 |
| More negative expectation of mood effect (GSE-Md), per point worsening | 0.85 | 0.61-1.19 | 0.35 | 1.21 | 0.77-1.90 | 0.40 |  |  |  |  |  |  |  |
| OR, 95% CI: odds ratio, 95% confidence interval for a worse subjective memory change estimated from ordinal mixed model with multiple imputation |
| CGI: Clinical global impression |  |  |  |  |  |  |  |  |  |  |  |
| GSE-My, GSE-Md: Global Self Evaluation Memory and Mood |

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| **Table S4. Unimputed analysis of variables associated with increasing subjective memory impairment from before to after ECT** |
|  | Univariate model |   | Final multivariate model (N=229) | N with data |
|  | Main effect | Time interaction effect |  | Main effect | Time interaction effect |  |
|  | OR | 95% CI | P | OR\*time | 95% CI | P |  | OR | 95% CI | P | OR\*time | 95% CI | P |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Female sex | 1.39 | 0.81-2.39 | 0.23 | 1.22 | 0.60-2.50 | 0.58 |  |  |  |  |  |  |  | 277 |
| Indication |  |  |  |  |  |  |  |  |  |  |  |  |  | 267 |
| Unipolar depression | Reference. | Reference. |  |  |  |  |  |  |  |  |
| Bipolar depression | 1.08 | 0.50-2.34 | 0.85 | 1.23 | 0.45-3.39 | 0.69 |  |  |  |  |  |  |  |  |
| All other conditions | 0.40 | 0.16-1.03 | 0.06 | 2.12 | 0.62-7.28 | 0.23 |  |  |  |  |  |  |  |  |
| Previously treated with ECT | 1.09 | 0.64-1.86 | 0.75 | 1.57 | 0.77-3.19 | 0.21 |  |  |  |  |  |  |  | 252 |
| Lithium | 1.02 | 0.48-2.15 | 0.96 | 1.37 | 0.51-3.68 | 0.53 |  |  |  |  |  |  |  | 264 |
| Valproate | 0.55- | 0.14-2.20 | 0.40 | 2.54 | 0.42-15.27 | 0.31 |  |  |  |  |  |  |  | 263 |
| Lamotrigine | 0.58 | 0.23-1.44 | 0.24 | 2.63 | 0.83-8.37 | 0.10 |  |  |  |  |  |  |  | 265 |
| Antipsychotic | 1.19 | 0.71-1.99 | 0.51 | 1.05 | 0.53-2.06 | 0.90 |  |  |  |  |  |  |  | 264 |
| Antidepressant | 1.13 | 0.59-2.17 | 0.71 | 0.78 | 0.34-1.83 | 0.57 |  |  |  |  |  |  |  | 265 |
| Bifronto/temporal ECT (vs. unilateral) | 0.57 | 0.24-1.34 | 0.20 | 0.96 | 0.31-2.98 | 0.94 |  |  |  |  |  |  |  | 270 |
| Brief pulse width (vs. ultrabrief) | 0.81 | 0.43-1.50 | 0.50 | 1.88 | 0.81-4.38 | 0.14 |  |  |  |  |  |  |  | 272 |
| Age, per 10 years | 1.05 | 0.90-1.23 | 0.56 | 0.75 | 0.61-0.98 | 0.01 |  | 1.04 | 0.86-1.25 | 0.72 | 0.81 | 0.63-1.03 | 0.08 | 277 |
| Duration of follow-up, per 4 weeks | 0.99 | 0.81-1.21 | 0.90 | 0.71 | 0.54-0.94 | 0.02 |  | 1.02 | 0.80-1.30 | 0.86 | 0.68 | 0.50-0.95 | 0.02 | 277 |
| Number of ECT sessions, per session | 1.01 | 0.95-1.08 | 0.69 | 1.11 | 1.02-1.20 | 0.02 |  |  |  |  |  |  |  | 277 |
| Charge, per 100 mC | 1.12 | 0.86-1.46 | 0.40 | 0.86 | 0.61-1.21 | 0.39 |  |  |  |  |  |  |  | 272 |
| CGI severity pre-ECT, 1-7 (lower is better), per point increase | 1.26 | 0.90-1.76 | 0.18 | 0.67 | 0.43-1.05 | 0.08 |  |  |  |  |  |  |  | 262 |
| CGI improvement, 1-7 (lower is better), per point increase | 0.85 | 0.63-1.16 | 0.31 | 1.66 | 1.10-2.49 | 0.01 |  |  |  |  |  |  |  | 237 |
| More negative expectation of memory effect (GSE-My), per point worsening | 0.65 | 0.50-0.84 | <0.001 | 2.20 | 1.54-3.14 | <0.001 |  | 0.65 | 0.50-0.85 | 0.001 | 2.15 | 1.50-3.09 | <0.001 | 229 |
| More negative expectation of mood effect (GSE-Md), per point worsening | 0.80 | 0.57-1.13 | 0.21 | 1.25 | 0.79-1.97 | 0.34 |  |   |   |   |   |   |   | 242 |
| OR, 95% CI: odds ratio, 95% confidence interval. Estimated from an ordinal mixed model. |
| CGI: Clinical global impression |
| GSE-My, GSE-Md: Global Self Evaluation Memory and Mood |

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| **Table S5. Unimputed analysis of variables associated with a more negative retrospective evaluation of the effect of ECT on memory** |
|   | Univariate |   | Final multivariate (N=229) |   |
|  | OR | 95% CI | P |  | OR | 95% CI | P | N with data |
| Female sex | 1.71 | 1.07-2.75 | 0.03 |  | 1.60 | 0.93-2.74 | 0.09 | 277 |
| Indication |  |  | 0.14 |  |  |  |  | 267 |
| Unipolar depression | Reference. |  |  |  |  |  |
| Bipolar depression | 1.55 | 0.78-3.08 | 0.21 |  |  |  |  |  |
| All other conditions | 0.57 | 0.25-1.29 | 0.18 |  |  |  |  |  |
| Previously treated with ECT | 1.06 | 0.66-1.71 | 0.79 |  |  |  |  | 252 |
| Lithium | 1.66 | 0.87-3.15 | 0.12 |  |  |  |  | 264 |
| Valproate | 3.94 | 1.06-14.58 | 0.04 |  | 4.05 | 0.88-18.66 | 0.07 | 263 |
| Lamotrigine | 0.93 | 0.43-2.02 | 0.85 |  |  |  |  | 265 |
| Antipsychotic | 1.03 | 0.66-1.60 | 0.91 |  |  |  |  | 264 |
| Antidepressant | 1.04 | 0.59-1.84 | 0.88 |  |  |  |  | 265 |
| Bifronto/temporal ECT (vs. unilateral) | 0.70 | 0.34-1.45 | 0.34 |  |  |  |  | 270 |
| Brief pulse width (vs. ultrabrief) | 1.06 | 0.61-1.82 | 0.84 |  |  |  |  | 272 |
| Age, per 10 years | 0.74 | 0.64-0.85 | <0.001 |  | 0.74 | 0.63-0.87 | <0.001 | 277 |
| Duration of follow-up, per 4 weeks | 1.04 | 0.87-1.24 | 0.68 |  |  |  |  | 277 |
| Number of ECT sessions, per session | 1.04 | 0.99-1.10 | 0.14 |  |  |  |  | 277 |
| Charge, per 100 mC | 0.94 | 0.75-1.18 | 0.61 |  |  |  |  | 272 |
| CGI severity pre-ECT, 1-7 (lower is better), per point increase | 0.90 | 0.67-1.20 | 0.48 |  |  |  |  | 262 |
| More subjective memory impairment pre-ECT (0-6), per point increase | 1.20 | 1.03-1.40 | 0.02 |  | 1.33 | 1.11-1.59 | <0.001 | 277 |
| CGI improvement, 1-7 (lower is better), per point increase | 1.27 | 0.97-1.67 | 0.08 |  |  |  |  | 237 |
| More negative expectation of memory effect (GSE-My), per point worsening | 1.26 | 1.00-1.57 | 0.05 |  | 1.29 | 1.02-1.64 | 0.04 | 229 |
| More negative expectation of mood effect (GSE-Md), per point worsening | 1.17 | 0.86-1.58 | 0.31 |  |  |  |  | 242 |
| OR, 95% CI: odds ratio, 95% confidence interval for a more negative retrospective evaluation of ECT's effect on memory, estimated from a ordinal regression model |
| CGI: Clinical global impression |
| GSE-My, GSE-Md: Global Self Evaluation Memory and Mood |