**Supplemental Digital Content 4**

**Supplemental Table 3.** Neuropsychological Assessments –Levetiracetam Group

(con’t)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | LEVETIRACETAM |  |
|  |  | | *Base* | *Wk12* |
| Working Memory | | |  |  |
| *WMS-III Spatial Span* | | |  |  |
| Forward | |  | 7.8 (0.5) | 8.3 (0.3) |
| Backward | |  | 7.6 (0.3) | 7.6 (0.4) |
| Total | |  | 15.4 (0.6) | 15.9 (0.6) |
| Age Adjusted | |  | 10.5 (0.6) | 10.9 (0.5) |
| *WMS-III Digit Span* | | |  |  |
| Forward |  | | 11.5 (0.5) | 11.6 (0.7) |
| Backward |  | | 7.8 (0.5) | 7.9 (0.6) |
| Total |  | | 19.4 (0.9) | 19.5 (1.1) |
| Age Adjusted |  | | 11.9 (0.7) | 12 (0.8) |
| Executive Function | | |  |  |
| *STROOP* | | |  |  |
| Word T |  | | 44.1 (2.3) | 43.7 (2.0) |
| Color T |  | | 45.3 (2.3) | 44.9 (1.9) |
| ColorWord |  | | 47.4 (2.0) | 49.8 (2.3) |
| Interference |  | | 48.2 (2.3) | 50.8 (2.3) |
| *Trail Making* | | |  |  |
| Trail B |  | | 63.9 (5.5) | 57.4 (5.5) |
| *Wisconsin Card Sort* | | |  |  |
| Categories |  | | 5.2 (0.4) | 5.0 (0.4) |
| Total Error T |  | | 48.4 (2.2) | 48.1 (2.2) |
| Perserv T |  | | 47.9 (2.2) | 48.8 (2.1) |
| Concept T |  | | 48.6 (2.5) | 48.2 (2.5) |

\* p<0.01 for group X time interaction for paired comparisons with the placebo group; Stroop Test: ColorT= Stroop Color Naming T Score; ColorWord= Stroop Color-Word Trial T Score; Interference= Stroop Color-Word Interference Index; WordT= Stroop Word Reading T Score; Wisconsin Card Sort Test:Categories= WCST Categories Completed; Concept T= WCST Conceptual Level Responses T Score; Perserv T= WCST Perseverative Responses T Score; Total Error= WCST Total Errors T Score.

**Supplemental Table 3.** Neuropsychological Assessments- Levetiracetam Group (con’t)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | LEVETIRACETAM |  |
|  |  | | *Base* | *Wk12* |
| Verbal Fluency | | |  |  |
| *COWAT.* | | |  |  |
| Phonetic |  | | 46.2 (3.0) | 45.4 (2.7) |
| Semantic |  | | 20.9 (0.9) | 21.2 (1.0) |
| Verbal Memory | | |  |  |
| AVLTot |  | | 53.4 (2.1) | 54.4 (2.2) |
| AVLTB |  | | 6.4 (0.4) | 6.7 (0.5) |
| AVLT7 |  | | 11.7 (0.7) | 11.0 (0.8) |
| AVLT8 |  | | 14.2 (0.3) | 14.1 (0.3) |
| Visual Memory | | |  |  |
| ReyDelay T |  | | 44.8 (1.7) | 48.9 (2.4) |
| ReyRe T |  | | 53.8 (2.7) | 58.1 (2.1) |
| Psychomotor Function, Visual Motor Tracking, Fine motor control. | | |  |  |
| Trail A | |  | 28.0 (1.8) | 25.3 (1.9) |
| Symbol Digit | |  | 51.2 (1.8) | 52.2 (1.8) |
| PegDom | |  | 69.5 (3.5) | 66.9 (3.2) |
| PegNoDom | |  | 84.9 (7.3) | 85.7 (6.7) |
| AB-Neurotox | |  | *Wk 1* | *Wks 11-12* |
| Total | |  | 12.1 (2.4) | 11.3 (2.7) |
| Memory | |  | 2.7 (0.5) | 2.3 (0.4) |
| Mental Slowing | |  | 2.3 (0.6) | 2.0 (0.6) |

\* p<0.01 for group X time interaction for paired comparisons with the placebo group; AVLT:AVLT7= RAVLT Short Delay Free Recall Total Score; AVLT8= RAVLT Long Delay Free Recall Total Score ; AVLTB = RAVLT Long Delay Free Recall Total Score ; AVLTot = RAVLT Trials 1-5 Total Score; Pegboard: PegDom= Grooved Pegboard Dom, Time to complete; PegNoDom= Grooved Pegboard NonDom, Time to complete; Rey-Osterrieth: ReyDelay T= Rey-Osterrieth Delayed Free Recall T Score; ReyReT= Rey-Osterrieth Delayed Recognition T Score; Symbol Digit Modality**:** Symbol Digit= Symbol Digit Coding Test, T Score;