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| Supplementary Table 1 | | |  |  |  |
| *Multiple Comparisons (Tukey HSD) of Neuropsychological Test Performance by Group* | | | | | |
| Measure | (I) Group ID | (J) Group ID | Mean Difference (I-J) | Std. Error | Sig. |
|  |  |  |  |  |  |
| Mini Mental Status Exam | OC | MCI | 0.188 | 0.775 | 0.968 |
|  |  | AD | 3.563\* | 0.775 | <0.001 |
|  | MCI | OC | -0.188 | 0.775 | 0.968 |
|  |  | AD | 3.375\* | 0.762 | <0.001 |
|  | AD | OC | -3.563\* | 0.775 | <0.001 |
|  |  | MCI | -3.375\* | 0.762 | <0.001 |
| CERAD Immediate | OC | MCI | 2.250 | 1.752 | 0.411 |
|  |  | AD | 7.563\* | 1.752 | <0.001 |
|  | MCI | OC | -2.250 | 1.752 | 0.411 |
|  |  | AD | 5.313\* | 1.752 | 0.011 |
|  | AD | OC | -7.563\* | 1.752 | <0.001 |
|  |  | MCI | -5.313\* | 1.752 | 0.011 |
| CERAD Delayed | OC | MCI | 3.250\* | 0.850 | 0.001 |
|  |  | AD | 5.438\* | 0.850 | <0.001 |
|  | MCI | OC | -3.250\* | 0.850 | 0.001 |
|  |  | AD | 2.188\* | 0.850 | 0.035 |
|  | AD | OC | -5.438\* | 0.850 | <0.001 |
|  |  | MCI | -2.188\* | 0.850 | 0.035 |
| CERAD Recognition (True Positives) | OC | MCI | 0.813 | 0.720 | 0.502 |
|  |  | AD | 1.813\* | 0.720 | 0.040 |
|  | MCI | OC | -0.813 | 0.720 | 0.502 |
|  |  | AD | 1.000 | 0.720 | 0.356 |
|  | AD | OC | -1.813\* | 0.720 | 0.040 |
|  |  | MCI | -1.000 | 0.720 | 0.356 |
| CERAD Recognition False Positives | OC | MCI | -0.313 | 0.440 | 0.759 |
|  |  | AD | -1.875\* | 0.440 | <0.001 |
|  | MCI | OC | 0.313 | 0.440 | 0.759 |
|  |  | AD | -1.563\* | 0.440 | 0.003 |
|  | AD | OC | 1.875\* | 0.440 | <0.001 |
|  |  | MCI | 1.563\* | 0.440 | 0.003 |
| Trails A Completion Time | OC | MCI | 2.125 | 6.031 | 0.934 |
|  |  | AD | -16.813\* | 6.031 | 0.021 |
|  | MCI | OC | -2.125 | 6.031 | 0.934 |
|  |  | AD | -18.938\* | 6.031 | 0.008 |
|  | AD | OC | 16.813\* | 6.031 | 0.021 |
|  |  | MCI | 18.938\* | 6.031 | 0.008 |
| Trails B Completion Time | OC | MCI | -2.500 | 26.111 | 0.995 |
|  |  | AD | -126.279\* | 27.576 | <0.001 |
|  | MCI | OC | 2.500 | 26.111 | 0.995 |
|  |  | AD | -123.779\* | 27.576 | <0.001 |
|  | AD | OC | 126.279\* | 27.576 | <0.001 |
|  |  | MCI | 123.779\* | 27.576 | <0.001 |
| Verbal Fluency (FAS) Total Score | OC | MCI | -4.875 | 3.529 | 0.359 |
|  |  | AD | 8.063 | 3.529 | 0.068 |
|  | MCI | OC | 4.875 | 3.529 | 0.359 |
|  |  | AD | 12.938\* | 3.529 | 0.002 |
|  | AD | OC | -8.063 | 3.529 | 0.068 |
|  |  | MCI | -12.938\* | 3.529 | 0.002 |
| Semantic Fluency (animals, fruits, vegetables) Total Score | OC | MCI | 2.188 | 3.694 | 0.825 |
|  |  | AD | 15.938\* | 3.694 | <0.001 |
|  | MCI | OC | -2.188 | 3.694 | 0.825 |
|  |  | AD | 13.750\* | 3.694 | 0.002 |
|  | AD | OC | -15.938\* | 3.694 | <0.001 |
|  |  | MCI | -13.750\* | 3.694 | 0.002 |
| Boston Naming Test Short Form Total Correct | OC | MCI | 0.375 | 0.645 | 0.831 |
|  |  | AD | 2.063\* | 0.645 | 0.007 |
|  | MCI | OC | -0.375 | 0.645 | 0.831 |
|  |  | AD | 1.688\* | 0.645 | 0.032 |
|  | AD | OC | -2.063\* | 0.645 | 0.007 |
|  |  | MCI | -1.688\* | 0.645 | 0.032 |
| Digit Span Forward Total | OC | MCI | 0.688 | 0.686 | 0.579 |
|  |  | AD | 2.125\* | 0.686 | 0.009 |
|  | MCI | OC | -0.688 | 0.686 | 0.579 |
|  |  | AD | 1.438 | 0.686 | 0.102 |
|  | AD | OC | -2.125\* | 0.686 | 0.009 |
|  |  | MCI | -1.438 | 0.686 | 0.102 |
| Digit Span Backwards Total | OC | MCI | -0.063 | 0.692 | 0.996 |
|  |  | AD | 1.438 | 0.692 | 0.106 |
|  | MCI | OC | 0.063 | 0.692 | 0.996 |
|  |  | AD | 1.500 | 0.692 | 0.088 |
|  | AD | OC | -1.438 | 0.692 | 0.106 |
|  |  | MCI | -1.500 | 0.692 | 0.088 |
| D-KEFS Color Naming Completion Time | OC | MCI | 0.592 | 2.618 | 0.972 |
|  |  | AD | -13.250\* | 2.576 | <0.001 |
|  | MCI | OC | -0.592 | 2.618 | 0.972 |
|  |  | AD | -13.842\* | 2.618 | <0.001 |
|  | AD | OC | 13.250\* | 2.576 | <0.001 |
|  |  | MCI | 13.842\* | 2.618 | <0.001 |
| D-KEFS Word Reading Completion Time | OC | MCI | 0.638 | 1.972 | 0.944 |
|  |  | AD | -5.063\* | 1.940 | 0.032 |
|  | MCI | OC | -0.638 | 1.972 | 0.944 |
|  |  | AD | -5.700\* | 1.972 | 0.016 |
|  | AD | OC | 5.063\* | 1.940 | 0.032 |
|  |  | MCI | 5.700\* | 1.972 | 0.016 |
| D-KEFS Inhibition Completion Time | OC | MCI | -9.042 | 14.840 | 0.816 |
|  |  | AD | -64.500\* | 14.599 | <0.001 |
|  | MCI | OC | 9.042 | 14.840 | 0.816 |
|  |  | AD | -55.458\* | 14.840 | 0.002 |
|  | AD | OC | 64.500\* | 14.599 | <0.001 |
|  |  | MCI | 55.458\* | 14.840 | 0.002 |
| D-KEFS Inhibition Uncorrected Errors | OC | MCI | -0.704 | 1.363 | 0.864 |
|  |  | AD | -6.000\* | 1.341 | <0.001 |
|  | MCI | OC | 0.704 | 1.363 | 0.864 |
|  |  | AD | -5.296\* | 1.363 | 0.001 |
|  | AD | OC | 6.000\* | 1.341 | <0.001 |
|  |  | MCI | 5.296\* | 1.363 | 0.001 |
| D-KEFS Inhibition Self-Corrected Errors | OC | MCI | -0.258 | 0.538 | 0.881 |
|  |  | AD | -0.875 | 0.529 | 0.234 |
|  | MCI | OC | 0.258 | 0.538 | 0.881 |
|  |  | AD | -0.617 | 0.538 | 0.491 |
|  | AD | OC | 0.875 | 0.529 | 0.234 |
|  |  | MCI | 0.617 | 0.538 | 0.491 |
| D-KEFS Switching Time | OC | MCI | -9.175 | 22.198 | 0.910 |
|  |  | AD | -55.221 | 23.062 | 0.054 |
|  | MCI | OC | 9.175 | 22.198 | 0.910 |
|  |  | AD | -46.046 | 23.404 | 0.133 |
|  | AD | OC | 55.221 | 23.062 | 0.054 |
|  |  | MCI | 46.046 | 23.404 | 0.133 |
| D-KEFS Switching Uncorrected Errors | OC | MCI | -3.454 | 2.489 | 0.357 |
|  |  | AD | -11.803\* | 2.586 | <0.001 |
|  | MCI | OC | 3.454 | 2.489 | 0.357 |
|  |  | AD | -8.349\* | 2.624 | 0.008 |
|  | AD | OC | 11.803\* | 2.586 | <0.001 |
|  |  | MCI | 8.349\* | 2.624 | 0.008 |
| D-KEFS Switching Self-Corrected Errors | OC | MCI | 0.379 | 0.599 | 0.803 |
|  |  | AD | 0.466 | 0.623 | 0.736 |
|  | MCI | OC | -0.379 | 0.599 | 0.803 |
|  |  | AD | 0.087 | 0.632 | 0.990 |
|  | AD | OC | -0.466 | 0.623 | 0.736 |
|  |  | MCI | -0.087 | 0.632 | 0.990 |
| RBANS Digit Symbol Coding | OC | MCI | 3.125 | 3.358 | 0.624 |
|  |  | AD | 15.688\* | 3.358 | <0.001 |
|  | MCI | OC | -3.125 | 3.358 | 0.624 |
|  |  | AD | 12.563\* | 3.358 | 0.001 |
|  | AD | OC | -15.688\* | 3.358 | <0.001 |
|  |  | MCI | -12.563\* | 3.358 | 0.001 |
| D-KEFS Verbal Fluency: Category Fluency Switching Accuracy | OC | MCI | 2.125 | 1.364 | 0.274 |
|  |  | AD | 5.938\* | 1.364 | <0.001 |
|  | MCI | OC | -2.125 | 1.364 | 0.274 |
|  |  | AD | 3.813\* | 1.364 | 0.020 |
|  | AD | OC | -5.938\* | 1.364 | <0.001 |
|  |  | MCI | -3.813\* | 1.364 | 0.020 |
| D-KEFS Verbal Fluency: Category Fluency Switching Total Correct Responses | OC | MCI | 1.563 | 1.117 | 0.350 |
|  |  | AD | 5.563\* | 1.117 | <0.001 |
|  | MCI | OC | -1.563 | 1.117 | 0.350 |
|  |  | AD | 4.000\* | 1.117 | 0.002 |
|  | AD | OC | -5.563\* | 1.117 | <0.001 |
|  |  | MCI | -4.000\* | 1.117 | 0.002 |
| D-KEFS Verbal Fluency: Category Set Loss Errors | OC | MCI | 0.063 | 0.369 | 0.984 |
|  |  | AD | -0.500 | 0.369 | 0.372 |
|  | MCI | OC | -0.063 | 0.369 | 0.984 |
|  |  | AD | -0.563 | 0.369 | 0.289 |
|  | AD | OC | 0.500 | 0.369 | 0.372 |
|  |  | MCI | 0.563 | 0.369 | 0.289 |
| D-KEFS Verbal Fluency: Category Repetitions | OC | MCI | 0.063 | 0.232 | 0.961 |
|  |  | AD | 0.063 | 0.232 | 0.961 |
|  | MCI | OC | -0.063 | 0.232 | 0.961 |
|  |  | AD | 0.000 | 0.232 | 1.000 |
|  | AD | OC | -0.063 | 0.232 | 0.961 |
|  |  | MCI | 0.000 | 0.232 | 1.000 |
| D-KEFS Sorting Test: Free Sort Number of Correct Sorts | OC | MCI | -0.063 | 0.474 | 0.990 |
|  |  | AD | 1.438\* | 0.474 | 0.011 |
|  | MCI | OC | 0.063 | 0.474 | 0.990 |
|  |  | AD | 1.500\* | 0.474 | 0.008 |
|  | AD | OC | -1.438\* | 0.474 | 0.011 |
|  |  | MCI | -1.500\* | 0.474 | 0.008 |
| D-KEFS Sorting Test: Free Sort Description Score | OC | MCI | -0.563 | 1.855 | 0.951 |
|  |  | AD | 6.000\* | 1.855 | 0.006 |
|  | MCI | OC | 0.563 | 1.855 | 0.951 |
|  |  | AD | 6.563\* | 1.855 | 0.003 |
|  | AD | OC | -6.000\* | 1.855 | 0.006 |
|  |  | MCI | -6.563\* | 1.855 | 0.003 |
| D-KEFS Sorting Test: Recognition Sort Description Score | OC | MCI | 1.000 | 2.012 | 0.873 |
|  |  | AD | 3.625 | 2.012 | 0.180 |
|  | MCI | OC | -1.000 | 2.012 | 0.873 |
|  |  | AD | 2.625 | 2.012 | 0.400 |
|  | AD | OC | -3.625 | 2.012 | 0.180 |
|  |  | MCI | -2.625 | 2.012 | 0.400 |
| D-KEFS Twenty Questions: Total Achievement Score | OC | MCI | 2.063 | 1.472 | 0.349 |
|  |  | AD | 4.438\* | 1.472 | 0.012 |
|  | MCI | OC | -2.063 | 1.472 | 0.349 |
|  |  | AD | 2.375 | 1.472 | 0.250 |
|  | AD | OC | -4.438\* | 1.472 | 0.012 |
|  |  | MCI | -2.375 | 1.472 | 0.250 |
| D-KEFS Twenty Questions: Abstraction Score | OC | MCI | 2.063 | 2.722 | 0.731 |
|  |  | AD | 12.688\* | 2.722 | <0.001 |
|  | MCI | OC | -2.063 | 2.722 | 0.731 |
|  |  | AD | 10.625\* | 2.722 | 0.001 |
|  | AD | OC | -12.688\* | 2.722 | <0.001 |
|  |  | MCI | -10.625\* | 2.722 | 0.001 |
| D-KEFS Twenty Questions: Total Number of Questions | OC | MCI | -5.250 | 4.761 | 0.517 |
|  |  | AD | -14.563\* | 4.761 | 0.010 |
|  | MCI | OC | 5.250 | 4.761 | 0.517 |
|  |  | AD | -9.313 | 4.761 | 0.135 |
|  | AD | OC | 14.563\* | 4.761 | 0.010 |
|  |  | MCI | 9.313 | 4.761 | 0.135 |
| *Note*. \* The mean difference is significant at the 0.05 level. OC = Healthy age matched control group; MCI = Mild cognitive impairment due to Alzheimer’s’ disease group; AD = mild Alzheimer’s disease dementia group.  CERAD = Consortium to Establish a Registry for Alzheimer’s Disease Word List Memory Test. D-KEFS = Delis-Kaplan Executive Function System; RBANS = Repeatable Battery for the Assessment of Neuropsychological Status | | | | |  |