CORRECTION

# Correction: Quantitative Amyloid Imaging in Autosomal Dominant Alzheimer's Disease: Results from the DIAN Study Group

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There are errors in the published article. Incorrect sample sizes were reported in Table 4 and Table 6. The intended sample size calculation was based on two-sided two-sample t-test to estimate the number of participants per arm needed to detect the specified reduction in amyloid accumulation rate due to treatment with 80% power and two-tailed type-I error of p = 0.05 in a 12-month placebo-controlled randomized clinical trial. The tables with corrected sample size values can be seen here.

**Table 4. Longitudinal SUVR analysis for mean cortical regions in mutation carriers.**

| | MC_CER | MC_BS | MC_CW | MC_TW | MCRSF_CER | MCRSF_BS | MCRSF_CW | MCRSF_TW |
|---|---|---|---|---|---|---|---|---|
| Baseline | 1.73±0.58 | 1.15±0.35 | 1.08±0.31 | 0.99±0.14 | 2.54±1.28 | 1.43±0.63 | 1.53±0.73 | 1.43±0.56 |
| follow-up | 1.76±0.60 | 1.17±0.35 | 1.12±0.32 | 1.00±0.14 | 2.65±1.36 | 1.48±0.64 | 1.64±0.80 | 1.49±0.57 |
| delta | 0.03±0.11 | 0.01±0.07 | 0.04±0.07 | 0.01±0.03 | 0.11±0.26 | 0.05±0.10 | 0.11±0.17 | 0.06±0.11 |
| delta% | 1.63±7.04 | 1.51±6.30† | 3.34±5.88 | 1.29±3.54 | 4.19±11.07*‡ | 4.08±9.86*‡ | 7.03±11.27* | 5.05±9.82* |
| p (follow-up vs. Baseline) | 7.22E-02 | 1.39E-01 | 1.70E-05 | 8.12E-03 | 8.78E-04 | 6.25E-04 | 7.46E-06 | 1.14E-04 |
| Rate | 0.01±0.08 | 0.00±0.04 | 0.02±0.04 | 0.01±0.02 | 0.07±0.18 | 0.02±0.06 | 0.07±0.13 | 0.04±0.07 |
| Effect Size | 0.15 | 0.07 | 0.55 | 0.38 | 0.38 | 0.38 | 0.51 | 0.50 |
| sample size (25% reduction in Rate) | 11425 | 48016 | 819 | 1744 | 1712 | 1701 | 956 | 1001 |
| sample size (50% reduction in rate) | 2857 | 12005 | 206 | 437 | 429 | 426 | 240 | 251 |

MC_CER = mean cortical region SUVR using cerebellar cortex as reference; MC_BS = mean cortical region SUVR using brainstem as reference; MC_CW = mean cortical region SUVR using core white matter as reference; MC_TW = mean cortical region SUVR using total white matter as reference; MCRSF_CER = mean cortical region SUVR using cerebellar cortex as reference with RSF partial volume correction; MCRSF_BS = mean cortical region SUVR using brainstem as reference with RSF partial volume correction; MCRSF_CW = mean cortical region SUVR using core white matter as reference with RSF partial volume correction; MCRSF_TW = mean cortical region SUVR using total white matter as reference with RSF partial volume correction; delta = change in SUVR from baseline to follow-up; delta% = percent change in SUVR from baseline to follow-up; p is the strength of the difference between follow-up and baseline SUVRs based on a paired t-test; Rate = the annual rate of SUVR change; sample size is the estimated number of participants per arm needed to detect a 25% or a 50% reduction in amyloid accumulation rate due to treatment with 80% power and a two-tailed type-I error of p = 0.05 in a 12-month placebo-controlled randomized clinical trial.
*percent change in MCSUVR significantly greater with PVC than without (p<0.0005)
†percent change in MCSUVR significantly smaller than CW referencing (p<0.01)
‡percent change in MCSUVR with PVC significantly smaller than CW referencing (p<0.05)

**Table 6. Mean cortical measurement for longitudinal cohort participants with full dynamic PiB.**

| | MC_CER | MC_BS | MC_CW | MC_TW | MCRSF_CER | MCRRSF_BS | MCRRSF_CW | MCRRSF_TW | MCBP | MCBPRSF |
|---|---|---|---|---|---|---|---|---|---|---|
| Baseline | 1.83±0.59 | 1.18±0.35 | 1.12±0.31 | 1.02±0.16 | 2.80±1.33 | 1.50±0.64 | 1.60±0.71 | 1.54±0.62 | 0.62±0.45 | 1.33±0.93 |
| follow-up | 1.89±0.58 | 1.22±0.35 | 1.16±0.32 | 1.03±0.15 | 2.93±1.33 | 1.58±0.66 | 1.71±0.75 | 1.60±0.62 | 0.67±0.45 | 1.43±0.95 |
| delta | 0.05±0.13 | 0.04±0.06 | 0.04±0.05 | 0.01±0.04 | 0.14±0.29 | 0.09±0.09 | 0.11±0.12 | 0.06±0.11 | 0.05±0.10 | 0.10±0.22 |
| p (follow-up vs. Baseline) | 6.34E-02 | 1.98E-03 | 4.47E-04 | 8.39E-02 | 3.33E-02 | 2.02E-04 | 1.68E-04 | 1.19E-02 | 2.91E-02 | 3.84E-02 |
| Rate | 0.02±0.09 | 0.02±0.03 | 0.02±0.03 | 0.00±0.02 | 0.05±0.17 | 0.04±0.05 | 0.05±0.06 | 0.03±0.05 | 0.02±0.05 | 0.04±0.11 |
| Effect Size | 0.23 | 0.62 | 0.71 | 0.25 | 0.33 | 0.85 | 0.82 | 0.49 | 0.33 | 0.34 |
| sample size (25% reduction in Rate) | 4570 | 662 | 499 | 4072 | 2339 | 350 | 373 | 1034 | 2350 | 2192 |
| sample size (50% reduction in rate) | 1143 | 167 | 126 | 1019 | 586 | 89 | 94 | 260 | 589 | 549 |

MC_CER = mean cortical region SUVR using cerebellar cortex as reference; MC_BS = mean cortical region SUVR using brainstem as reference; MC_CW = mean cortical region SUVR using core white matter as reference; MC_TW = mean cortical region SUVR using total white matter as reference; MCRSF_CER = mean cortical region SUVR using cerebellar cortex as reference with RSF partial volume correction; MCRSF_BS = mean cortical region SUVR using brainstem as reference with RSF partial volume correction; MCRSF_CW = mean cortical region SUVR using core white matter as reference with RSF partial volume correction; MCRSF_TW = mean cortical region SUVR using total white matter as reference with RSF partial volume correction; MCBP = mean cortical binding potential; MCBPRSF = mean cortical binding potential with RSF partial volume correction; delta = change in SUVR from baseline to follow-up; p is the strength of the difference between follow-up and baseline SUVRs based on a paired t-test; Rate = the annual rate of SUVR change; sample size is the estimated number of participants per arm needed to detect a 25% or a 50% reduction in amyloid accumulation rate due to treatment with 80% power and a two-tailed type-I error of p = 0.05 in a 12-month placebo-controlled randomized clinical trial.

# Reference

1. Su Y, Blazey TM, Owen CJ, Christensen JJ, Friedrichsen K, Joseph-Mathurin N, et al. (2016) Quantitative Amyloid Imaging in Autosomal Dominant Alzheimer's Disease: Results from the DIAN Study Group. PLoS ONE 11(3): e0152082. doi:10.1371/journal.pone.0152082 PMID: 27010959