**eTable 1**. Annualized change of retinal layers thicknesses in RRMS converters to SPMS before conversion compared to RRMS non-converters (controls) excluding eyes with history of optic neuritis (10 eyes from the converters and 6 eyes from non-converters).

|  |  |  |
| --- | --- | --- |
| **Annualized****change, mean (SD)** p value **\***(within-group testing for annualized change being different than 0) | **MS Subtype**(Total n = 61; converters = 21, non-converters = 40)Excluding ON eyes (total 16 eyes) | **Difference in annualized changes between groups****a**p value \* |
| **Non-converters** **(n = 40)**  | **Converters** **(n = 21)** |
| **pRNFL** (µm/year) | -0.53 (0.16)0.001 \* | -1.02 (0.27)p<0.0001 \* | -0.48 (0.25)0.055 |
| **tRNFL** (µm/year) | -0.6 (0.12)0.005 \* | -2.82 (0.31)p<0.0001 \* | -2.21 (0.28) p<0.0001 \* |
| **GCIPL** (µm/year) | -0.18 (0.1)0.091 | -1.06 (0.16) p<0.0001 \* | -0.88 (0.13) p<0.0001 \* |
| **INL** (µm/year) | -0.07 (0.04)0.105 | -0.15 (0.07)0.053 | -0.08 (0.07)0.284 |
| **MV** (mm3/year)  | -0.01 (0.007)0.063  | -0.04 (0.01)0.003 \* | -0.02 (0.01) 0.044  |

a Mixed-effects regression, controlling for age, sex, disease duration at first visit, and current DMT, with random intercepts for patient and eye, and random slope for time of follow up.

\* Statistically significant with a p-value < 0.01 after Bonferroni adjustment for multiple comparisons.

**eTable 2.** The progression of clinical measures in converters (until diagnosis of SPMS) and non-converters (until last EDSS visit).

|  |  |  |  |
| --- | --- | --- | --- |
|   **Clinical measures**  |  **Converters** **(n = 21)**  |  **Non-converters** **(n = 40)**  |  **p-value** \* |
|  EDSS progression (%)   |  16 (76%)   |  5 (12.5%)   |  < 0.0001\*  |
|  25-FWT increase by ≥ 20% No. (%)   |   12 (57%)   |   4 (10%)   |   < 0.0001\*   |
|   SDMT decrease by ≥ 20% No. (%)   |   6 (29%)   |   5 (13%)  |   0.12  |
|   9-HPT increase by ≥ 20% No. (%)  N = 39 in non-converters   |   2 (10%)   |   1 (3%)   |   0.238  |
|  New MRI lesions No. (%)   |  16 (76%)  |  30 (75%)  |  0.918  |
|  New gad-enhancing MRI lesions No. (%)    |  4 (19%)  |  11 (28%)  |  0.466  |

\* Statistically significant with a p-value < 0.05.