SUPPLEMENT



**Table S2** Annual percentage atrophy rates for total brain, grey matter and white matter volumes calculated from separate cross-sectional analysis (FSL-SIENAX) at two timepoints compared between untreated patients and patients treated with interferon-beta during the first and the second years.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Total brain volume** | **Grey matter** | **White matter** |
|  | **BL to FU1** | **FU1 to FU2** | **BL to FU1** | **FU1 to FU2** | **BL to FU1** | **FU1 to FU2** |
| no therapy | Interferon | no therapy | Interferon | no therapy | Interferon | no therapy | Interferon | no therapy | Interferon | no therapy | Interferon |
| **Atrophy rate [% / year]** | -0.31 (-0.93, 0.88) | -1.34 (-2.37, 0.00) | -0.48 (-1.31, 0.61) | -0.12 (-1.24, 0.79) | -0.16 (-1.27, 1.18) | -1.40 (-2.92, 0.18) | -0.95 (-2.25, 0.56) | -0.21 (-1.47, 1.01) | -0.30 (-0.87, 0.38) | -0.90 (-1.92, -0.19) | -0.10 (-1.20, 1.07) | 0.15 (-1.17, 1.16) |
| **p-value1** | 0.007 | 0.14 | 0.0558 | 0.25 | 0.002 | 0.12 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Median (IQR) no therapy: N =42; Interferon: N = 791 comparison between “no therapy” and “interferon” groups by linear mixed-model analysis |



**Figure S1** Visualisation of atrophy rates for total brain (TBV), grey matter (GM) and white matter (WM) volumes calculated from cross-sectional analysis (FSL-SIENAX) compared between untreated patients and patients treated with interferon-beta during the first and the second years.