|  |  |  |
| --- | --- | --- |
| **Supplementary Table S1** Adverse events and serious adverse events | | |
|  | **RTX group** | **placebo** |
| **Grade 1 events (number of events)\*** | 29 | 19 |
| **Grade 2 events (number of events)** | 15 | 10 |
| **Grade 3 and 4 events (number of events)** |  |  |
| all | 8 | 7 |
| Blood and lymphatic disorders | 1 | 0 |
| Infections and infestations | 3 | 5 |
| Neoplasms, benign, malignant and non-classified | 1 | 0 |
| Reproductive system and breast disorders | 2 | 0 |
| Vascular disorders | 1 | 0 |
| Gastrointestinal disorders | 0 | 2 |
| RTX; rituximab  \* higher amount of grade 1 adverse events in the RTX group was due to mild, infusion reactions (system organ class type: immune system) | | |

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| **Supplementary Table S2.** Treatment responses for clinical outcome variables from baseline to 24 months of follow/up, depicted by change in area under the curve | | | | | | | | | |
|  | **mean change AUC\* from BL to 12 months FU, mean (SD)** | | | |  | **mean change AUC\* from BL to 24 months FU, mean (SD)** | | | |
|  | **RTX group**  (n=8) | **Control group**  (n=8) | **Difference**  **(95% CI)** | **p-value** |  | **RTX group**  (n=8) | **Control group**  (n=8) | **Difference**  **(95% CI)** | **p-value** |
| **mRSS** | -1.4 (3.1) | -2.7 (5.5) | 1.3 (-3.4 to 6.2) | 0.55 |  | -2.5 (4.0) | -2.4 (8.0) | 0.1 (-6.7 to 6.9) | 0.97 |
| **FVC, % predicted** | 0.6 (4.4) | -0.4 (2.3) | 1.0 (-2.8 to 4.7) | 0.59 |  | 1.6 (5.6) | -1.1 (4.7) | 2.8 (-2.8 to 8.4) | 0.30 |
| **HAQ-DI** | 0.04 (0.43) | 0.09 (0.28) | -0.05 (-0.43 to 0.34) | 0.80 |  | -0.03 (0.58) | 0.14 (0.38) | -0.17 (-0.69 to 0.36) | 0.51 |
| AUC: Area under the curve; mRSS: modified Rodnan Skin Score; FVC: forced vital capacity; HAQ-DI: Health Assessment Questionnaire Disability Index; BL: baseline; FU: follow-up  *\* Each unit of change in AUC means one month of persistent change from baseline in 1 point of mRSS, FVC % predicted or HAQ-DI* | | | | | | | | | |

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| **Supplementary table S3. Immunohistopathologic findings at baseline and 3 months in skin biopsies** | | | | |
|  | Mononuclear infiltration score | | | |
|  | 0 | 1 | 2 | 3 |
| Baseline |  |  |  |  |
| placebo (n=8) | 0.0% (n=0) | 62.5% (n=5) | 25.0% (n=2) | 12.5% (n=1) |
| RTX (n=7) | 28.6% (n=2) | 42.9% (n=3) | 28.6% (n=2) | 0.0% (n=0) |
| 3 months | |  |  |  |
| placebo (n=7) | 0.0% (n=0) | 71.4% (n=5) | 28.6% (n=2) | 0.0% (n=0) |
| RTX (n=7) | 14.3% (n=1) | 57.1% (n=4) | 14.3% (n=1) | 14.3% (n=1) |
|  |  |  |  |  |
|  | Macrophage score | | | |
|  | 0 | 1 | 2 | 3 |
| Baseline |  |  |  |  |
| placebo (n=6)\* | 25% (n=2) | 50.0% (n=4) | 25.0% (n=2) | 0.0% (n=0) |
| RTX (n=7) | 14.3% (n=1) | 57.1% (n=4) | 28.6% (n=2) | 0.0% (n=0) |
| 3 months | |  |  |  |
| placebo (n=7) | 0.0% (n=0) | 85.7% (n=6) | 14.3% (n=1) | 0.0% (n=0) |
| RTX (n=7) | 14.3% (n=1) | 57.1% (n=4) | 28.6% (n=2) | 0.0% (n=0) |
|  |  |  |  |  |
|  | T cell score | | | |
|  | 0 | 1 | 2 | 3 |
| Baseline |  |  |  |  |
| placebo (n=8) | 37.5% (n=3) | 37.5% (n=3) | 25.0% (n=2) | 0.0% (n=0) |
| RTX (n=6)\* | 66.7% (n=4) | 33.3% (n=2) | 0.0% (n=0) | 0.0% (n=0) |
| 3 months | |  |  |  |
| placebo (n=7) | 42.9% (n=3) | 57.1% (n=4) | 0.0% (n=0) | 0.0% (n=0) |
| RTX (n=6)\* | 16.7% (n=1) | 66.7% (n=4) | 16.7% (n=1) | 0.0% (n=0) |
|  |  |  |  |  |
|  | B cell score | | | |
|  | 0 | 1 | 2 | 3 |
| Baseline |  |  |  |  |
| placebo (n=8) | 87.5% (n=7) | 12.5 (n=1) | 0.0% (n=0) | 0.0% (n=0) |
| RTX (n=7) | 100% (n=7) | 0.0% (n=0) | 0.0% (n=0) | 0.0% (n=0) |
| 3 months | |  |  |  |
| placebo (n=7) | 100% (n=7) | 0.0% (n=0) | 0.0% (n=0) | 0.0% (n=0) |
| RTX (n=7) | 100% (n=7) | 0.0% (n=0) | 0.0% (n=0) | 0.0% (n=0) |
|  |  |  |  |  |
| RTX; rituximab, Scores indicate numbers of immune cells found in the skin; 0 indicating less than 10 cells, 1 indicating a collection of at least 10 cells, 2 indicating 10-50 cells, 3 indicating >50 cells.  \*Based on quality assessment 1 samples was excluded from scoring | | | | |