**Supplementary Table 1.** The acoustic pressure levels are determined by a calibration of the implants in water prior to implantation in patients. The 95% confidence interval given in the table denotes the measurement uncertainty inherent to this process. Acoustic pressure levels reported previously (19) were re-evaluated using enhanced acoustic calibration methods with reduced uncertainty. The former values are given in the *p*old column to ease comparison with our previous publication.

|  |  |  |  |
| --- | --- | --- | --- |
| **US Dose Level** | ***p* (MPa) [95% CI]** | ***p*old (MPa) [95% CI]** (19) | **# of sonications (%)** |
| **1** | **0**.**41** [0.36-0.46] | **0.50** [0.41 -0.59] | **3 (5%)** |
| **2** | **0**.**53** [0.47–0.59] | **0.65** [0.53-0.77] | **6 (9%)** |
| **3** | **0**.**66** [0.58-0.73] | **0.80** [0.65-0.95] | **11 (17%)** |
| **4** | **0**.**78** [0.69-0.87] | **0.95** [0.78-1.12] | **7 (11%)** |
| **5** | **0**.**90** [0.80-1.01] | **1.10** [0.90-1.30] | **20 (31%)** |
| **6** | **1**.**03** [0.91-1.14] | **1.25** [1.02-1.48] | **9 (14%)** |
| **7** | **1.15** [1.02-1.28] | **1.40** [1.14-1.66] | **9 (14%)** |

**Supplementary Table 2.** BBB disruption grade and acoustic pressure**.** Data are *n* (%).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Acoustic pressure****(MPa)** | **Grade 0** | **Grade 1** | **Grade 2** | **Grade 3** | **Total Sonications** |
| **0**.**41** | 2(67%) | 1(33%) | 0(0%) | 0(0%) | 3 |
| **0**.**53** | 6(100%) | 0(0%) | 0(0%) | 0(0%) | 6 |
| **0**.**66** | 2(18%) | 7(64%) | 0(0%) | 2(18%) | 11 |
| **0**.**78** | 1(14%) | 2(29%) | 2(29%) | 2(29%) | 7 |
| **0**.**90** | 0(0%) | 4(20%) | 1(5%) | 15(75%) | 20 |
| **1**.**03** | 0(0%) | 2(22%) | 3(33%) | 4(44%) | 9 |
| **1**.**15** | 1(11%) | 2(22%) | 2(22%) | 4(44%) | 9 |

**Supplementary Table 3.** The secondary outcomes of the trial were calculated based on the grading assigned to post-contrast MR images evaluating the level of BBB disruption. Greater amounts of post-sonication BBB disruption resulted in a trend towards longer PFS and OS.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **All patients****(*n*=19 patients)** | **Grade 0/1** **(*n*=8 patients)** | **Grade 2/3****(*n*=11 patients)** |
| **Median PFS**  | 3.5 [2.7 ; 7.8] months | 2.73 [2.2 ; NA] months | 4.1 [3.2 ; NA] months |
| **6-month PFS** | 21% [8.8% ; 50.3%] | 11.1% [1.75% ; 70.5%] | 30% [11.6% ; 77.3%] |
| **Median OS** | 9.95 [8.9 ; 16.8] months | 8.64 [5.0 ; NA] months | 12.94 [9.6 ; NA] months |
| **12-month OS** | 42% [25% ; 71%] | 25% [7.5% ; 83%] | 55% [31.8% ; 93.6%] |