**Supplemental Table S1.** Multivariable linear regression analysis for clinical outcomes except cumulated ambulation score

| | Adjusted $R^2$ | Adjusted beta (95% CI) | P Value |
|---|---|---|---|
| VAS during movement, day2 | 0.06 | | 0.119 |
| Age | | -0.03 (-0.12 to 0.07) | 0.58 |
| Dementia | | 0.94 (0.16 to 1.72) | 0.02 |
| CCI | | -0.22 (0.16 to 1.72) | 0.31 |
| Cement augmentation | | -0.99(-2.15 to 0.44) | 0.12 |
| VAS during movement, day3 | 0.17 | | 0.004 |
| Age | | -0.05 (-0.14 to 0.05) | 0.31 |
| Dementia | | 0.95 (0.14 to 1.76) | 0.02 |
| CCI | | -0.17 (-0.62 to 0.27) | 0.03 |
| Cement augmentation | | -2.36 (-3.67 to -1.06) | 0.001 |
| Barthel index, 1 week | 0.44 | | <0.001 |
| Age | | -0.93 (-1.68 to -0.20) | 0.01 |
| Dementia | | -12.59 (-18.95 to -6.24) | <0.01 |
| CCI | | -1.29 (-4.78 to 2.21) | 0.46 |
| Cement augmentation | | 8.60 (-1.60 to 18.79) | 0.10 |

VAS, visual analog scale