Supplementary Table 1: Biological parameters profiling to control the safety of the intervention.

| Parameter | Group  | Baseline        | Month 1        | Month 3        | Month 6        | Month 9        | Month 12       | Month 24       | P     |
|-----------|--------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|
| WBC (10^9/L) | NK+ART | 5.17 ± 1.78     | 5.55 ± 1.91    | 4.73 ± 0.88    | 5.16 ± 1.65    | 5.07 ± 1.71    | 4.79 ± 1.23    | 5.01 ± 1.48    | ns    |
|           | ART    | 5.11 ± 1.13     | 5.15 ± 1.04    | 5.24 ± 1.36    | 4.68 ± 0.77    | 4.76 ± 0.73    | 4.72 ± 1.02    | 5.13 ± 1.36    |       |
| LYM (10^9/L) | NK+ART | 1.58 ± 0.65     | 1.60 ± 0.71    | 1.37 ± 0.57    | 1.43 ± 0.62    | 1.44 ± 0.49    | 1.4 ± 0.5      | 1.73 ± 1.16    |       |
|           | ART    | 1.37 ± 0.64     | 1.49 ± 0.68    | 1.25 ± 0.48    | 1.49 ± 0.55    | 1.31 ± 0.39    | 1.28 ± 0.39    | 1.22 ± 0.46    |       |
| RBC (10^{12}/L) | NK+ART | 4.49 ± 0.52     | 4.36 ± 0.64    | 4.43 ± 0.63    | 4.42 ± 0.54    | 4.49 ± 0.78    | 4.31 ± 0.44    | 4.69 ± 0.74    |       |
|           | ART    | 4.42 ± 0.48     | 4.35 ± 0.52    | 4.49 ± 0.52    | 4.57 ± 0.48    | 4.38 ± 0.47    | 4.47 ± 0.51    | 4.41 ± 0.44    |       |
| HGB (g/L) | NK+ART | 149.31 ± 6.90   | 147.42 ± 13.95 | 149.52 ± 13.01 | 150.60 ± 7.82 | 148.63 ± 14.48 | 147.62 ± 5.58 | 154.21 ± 13.46 | ns    |
|           | ART    | 135.23 ± 20.66  | 134.62 ± 19.17 | 140.64 ± 14.98 | 142.00 ± 15.30 | 139.73 ± 14.88 | 140.61 ± 14.42 | 132.72 ± 22.36 |       |
| PLT (10^9/L) | NK+ART | 223.35 ± 99.79  | 232.42 ± 114.73 | 233.71 ± 95.92 | 208.91 ± 74.66 | 208.05 ± 86.46 | 211.23 ± 66.99 | 234.34 ± 77.92 | ns    |
|           | ART    | 234.34 ± 45.62  | 230.03 ± 25.66 | 248.74 ± 31.21 | 255.14 ± 32.68 | 267.55 ± 72.31 | 264.37 ± 55.25 | 264.47 ± 34.58 |       |
| ALT (U/L) | NK+ART | 16.00 ± 5.16    | 18.00 ± 11.32  | 19.10 ± 4.44   | 19.40 ± 7.41   | 20.60 ± 8.21   | 19.30 ± 8.96   | 21.50 ± 8.92   |       |
|           | ART    | 15.50 ± 8.30    | 16.80 ± 10.93  | 15.60 ± 6.09   | 18.40 ± 9.18   | 17.00 ± 7.51   | 17.00 ± 7.47   | 17.00 ± 7.47   |       |
| AST (U/L) | NK+ART | 19.00 ± 6.75    | 19.90 ± 10.28  | 21.10 ± 7.17   | 20.20 ± 7.12   | 21.40 ± 6.65   | 23.50 ± 13.82  | 21.30 ± 7.60   |       |
|           | ART    | 16.30 ± 6.08    | 18.60 ± 8.76   | 16.80 ± 5.39   | 17.50 ± 4.69   | 19.50 ± 7.01   | 18.90 ± 6.69   | 18.50 ± 7.50   |       |
| TBIL (μmol/L) | NK+ART | 13.15 ± 5.29    | 15.34 ± 7.23   | 14.77 ± 6.67   | 14.30 ± 6.83   | 12.66 ± 7.31   | 13.72 ± 7.82   | 14.65 ± 7.76   |       |
|           | ART    | 11.61 ± 4.31    | 13.34 ± 3.55   | 10.80 ± 3.40   | 12.04 ± 4.60   | 10.83 ± 2.74   | 11.67 ± 3.93   | 11.72 ± 3.96   |       |
| Cr (μmol/L) | NK+ART | 71.20 ± 9.89    | 72.00 ± 11.56  | 73.20 ± 11.26  | 76.00 ± 11.24  | 78.60 ± 10.00  | 73.70 ± 11.76  | 67.90 ± 8.19   |       |
|           | ART    | 63.80 ± 9.45    | 68.10 ± 10.52  | 69.30 ± 9.32   | 66.80 ± 8.97   | 71.30 ± 10.37  | 68.80 ± 10.92  | 62.50 ± 12.76  |       |
| eGFR (mL/min/1.73m²) | NK+ART | 100.50 ± 8.65   | 98.98 ± 8.29   | 98.54 ± 9.29   | 96.85 ± 12.33  | 98.43 ± 11.77  | 99.81 ± 12.91  | 104.10 ± 8.55  | ns    |
|           | ART    | 104.30 ± 9.75   | 100.81 ± 11.72 | 99.94 ± 5.69   | 102.00 ± 9.29  | 97.43 ± 11.23  | 100.80 ± 9.32  | 104.50 ± 9.80  |       |

Data expressed as mean ± standard deviation. ns: no significance. NK: Allogeneic NK cell immunotherapy; ART: Antiretroviral therapy; WBC: White blood cell; LYM: Lymphocyte; RBC: Red blood cell; HGB: Hemoglobin; PLT: Platelet; ALT: Alanine aminotransferase; AST: Aspartate aminotransferase; TBIL: Total bilirubin; Cr: Creatine; eGFR: Estimated glomerular filtration rate.